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**Universitat Autònoma
de Barcelona**

**Cognitive Processes in Simultaneous Interpreting From English Into Arabic and
From Arabic Into English. A Study of Problems and Interpreter Strategies**

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Doctoral Dissertation

In partial fulfillment of doctoral candidate requirements for PhD in Translation and
Intercultural Studies

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List of Acronyms

Abbreviation	Acronym
SI	Simultaneous interpreting
MA	Master of Arts
IDPs	Iraqi Displaced People
JRS	Jesuit Refugee Service
NRC	Norwegian Refugee Council
UAB	Autonomous University of Barcelona
PHD	Doctor of Philosophy
ISIS	Islamic State of Iraq and Syria
CI	Consecutive Interpreting
SL	Source Language
TL	Target Language
ST	Source Text
TT	Target Text
LTM	Long-Term Memory
LI	Liaison Interpreting
AIIC	Association Internationale des Interprètes de Conférence (International Association of Conference Interpreters)
TAPs	Think-Aloud Protocols
EEG	Electroencephalography
EEG	Electro-encephalogram
EOG	Electrooculogram
ECG	Electrocardiogram
STM	Short Term Memory
EVS	Ear Voice Span
WM	Working Memory
SM	Sensory Memory
GAM	Generated Abstract Memory
VM	Verbal Memory
L	Listening and Analysis Effort
P	Production Effort
M	Memory Effort
C	Coordination Effort
CLM	Cognitive Load Model
PTs	Problem Triggers
US	United States
A. D	Anno Domini
USA	United states of America
LLM	Master of Law (Latin Legum Magister)
USCIS	United States Citizenship and Immigration Services
USCBP	United States Customs and Border Protection
ILO	International Labour Organization
UNESCO	The United Nations Educational, Scientific and Cultural Organization
KSA	Kingdom of Saudi Arabia



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Abstract

The overall aim of this doctoral research is to explore the lexical, syntactic and cultural problems in simultaneous interpreting from English into Arabic and vice versa, and the strategies applied to solve or prevent these problems. Two groups of interpreters, experts and novices, participated in two SI tasks from English into Arabic and from Arabic into English. A pilot study was previously conducted to test and validate the experiment. The experiment focuses on (1) the problem identification (process-oriented analysis),; (2) the renderings of proper names, numbers, collocations, passive voice, culture specific terms and structures and terms with religious content (product-oriented analysis),; and (3) triangulation of these data with the strategies applied by the subjects.

Pre and post-task questionnaires are used to study the problems encountered during rendering the Rich Points and the strategies applied. Moreover, the subjects conducted two SI tasks from English into Arabic and from Arabic into English. I used a mixed approach in the data analysis and data collection of this study as I qualitatively investigated subjects' interpretations of the Rich Points, their post interpreting reports and the strategies applied, and the quantitative differences between experts and novices regarding inadequate renderings, the percentage of these inadequate renderings and the strategies applied.

The results show that expert interpreters show high proficiency in identifying the problems and the cognitive processes that caused these problems during both SI tasks. On the other hand, novice interpreters showed their unawareness of most of the interpreting problems, which consequently has a negative impact on their performance. Besides, experts showed a more strategic behavior as compared with the novices during both SI tasks, since they successfully applied strategies that solved the problems and even prevented them. Novices, on the other hand, encountered problems with all the categories, as they could not apply the required strategies to solve or prevent the problems. Their performance was clearly characterized by omitting the Rich Points,

This study makes a contribution to the field of interpreters' training, emphasizing the relevance of problem recognition as the first step toward problem-solving. The study also points out the importance of successful management of cognitive processes during the SI task as an effective method to prevent problems and to keep the interpreting flow.

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I am also deeply indebted to the generosity of all the participants in this study especially to those expert interpreters in the Arabic Division of United Nations who showed their willingness to participate in the study. I should thank the novice interpreters from the University of Process Nourah bintu Abdulrahman / KSA and from the University of Tikrit, Iraq for their participation in both the pilot and the main studies. I am grateful to my colleague Abeya Aldabagh for her valuable efforts in conducting the pilot study in KSA and the coordination of selecting the participants of the study.

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1. Introduction

1.1 Motivation

As a member of the teaching staff at the University of Mosul, I have taught simultaneous interpreting in the College of Arts, Department of Translation, since 2015. In addition to written translation from Arabic into English and Journalistic Translation, I taught SI to the fourth-year students from the Department of Translation / College of Arts at the Universities of Mosul and Tikrit (Iraq), who were displaced in Kirkuk (north of Iraq) due to ISIS occupation to their cities during 2014-2017. This academic experience provided me with some intuitive, non-scientific understanding of the problems that students may encounter during the SI task between English and Arabic, particularly during the rendering of lexical, syntactic, and cultural elements. Nonetheless, I was also aware that most of my intuitions needed to be scientifically proved. This encouraged me to investigate the causes of these problems and to study the strategic solutions that are applied particularly by expert interpreters to overcome or prevent these problems. Conducting research in this field could, in short, allow me to implement these solutions in my future training courses.

Furthermore, I wanted to introduce conference interpreting research in my country, Iraq, as this study will be the first which sheds light on the study of conference interpreting, and particularly on SI. As a matter of fact, in the last years I have been actively participating in the creation of a conference interpreting lab at the University of Mosul, Iraq. It is worth mentioning that the University of Mosul is now in the process of recovery after the huge destruction of its infrastructure due to the occupation of ISIS terrorist groups and to the war during the liberation of the city from 2014 to 2017. My involvement in the creation of this lab and my personal commitment with the University of Mosul provided me with an extra personal interest for the research I was about to conduct.

During the displacement period caused by the war in Iraq, I also worked and volunteered as an interpreter with many NGOs (AMIDEAST, JRS and NRC) that help Iraqi Displaced People (IDPs) in the displacement camps in the Kurdistan region (north of Iraq), particularly in the field of education. This second professional experience also made me wonder about the challenges that interpreters normally face during the interpretation task and how they can cope with them. I decided to verify this by performing this research for both novices

and experts and acquiring concrete results which may help me to proceed in my future research plans.

After receiving a scholarship to complete my PhD at the UAB, Spain (emergency scholarship for refugees) with a help of Fundació Autònoma Solidaria (FAS), I realized that it was time for me to start doing research in conference interpreting, as all the required instruments were available and easily accessible, such as resources, interpreting labs, interpreting workshops, seminars, conferences, and directors with high proficiency.

1.2 Interest, Scope and Objective

It is clear that the process of simultaneous interpreting is a very demanding and complex task which requires interpreters to be aware of the problems and difficulties that may occur during its development. These problems and difficulties may increase when interpreters undertake the task of interpreting between two distant languages such as English and Arabic. The interpretation of lexical elements (proper names and numbers) as problem triggers consumes interpreters' available processing capacity due to their high informativity and low redundancy (Gile, 1995). Moreover, the interpretation of syntactic elements (collocations, passive voice) may cause problems for interpreters during the interpretation between English and Arabic due to the differences in sentence structure, culture specific references, and communal use of these elements between English and Arabic.

Furthermore, aspects related to culture (culture specific terms and structures, as well as terms and structures with religious content) are also considered among the problematic elements during the interpreting task because of the cultural gap between English and Arabic. This is due to the fact that English is related to Western Christian culture while Arabic is concerned with Eastern Islamic culture. In order to render these elements adequately, interpreters have to develop strategies and tactics so they can cope with cognitive pressure during the demanding process of SI. These strategies are normally developed through experience and training courses until they are automatically applied by interpreters.

The overall objective of this study is to analyze and compare the strategic behavior of experts and novices when coping with lexical, syntactical, and cultural problems during the

task of SI from English to Arabic and vice versa. From this study, we can know more about the cognitive aspects that were involved in SI process and learn about the differences between experts and novices during SI tasks from English into Arabic and vice versa.

This study aims to verify interpreters' ability to identify the problems through their post interpreting reports (questionnaire and answering post task questions), and to investigate and compare experts and novices' renderings for the Rich Points through a product analysis of their interpretations. Furthermore, the research reflects the impact of applying the necessary strategies that can overcome the problems and improve interpreters' performance, particularly through the analysis of experts' strategic behavior, which can be included in training courses for novices. It also sheds light on interpreters' awareness of many interpreting problems that occur during the SI task between English and Arabic, as the interpreters, particularly novice ones, may not realize many of the interpreting problems, and this hinders the application of the necessary solutions.

Furthermore, this is considered the first study that deals with all of these elements in the combination of these two languages, Arabic and English. Other studies focused on particular aspect such as standards of SI in Arabic satellite broadcasts (Darwish, 2006), collocation in SI (Mohammed, 2015), TV interpreting of presidential speech from Arabic into English (Al-Jabri, 2017), the difficulties encountered by students during English into Arabic SI and consecutive interpreting (CI) (Hanaqtah, 2017). Structural challenges of SI for professional interpreters in English into Arabic and vice versa (Al Zahran, 2021).

I sincerely hope that this research study will make an urgent and relevant contribution to knowledge in interpreting training, and that researchers, trainers, experts, and novices may benefit from this study. Additionally, experts can improve their performance through the results of this study, which highlights the causes of inaccurate renderings and triggers them to find suitable solutions to avoid these renderings. Trainers may also take the findings of this study into account to focus on the strategies applied, particularly by experts, and possibly include them in their training courses. Based on the results of this study, novices will identify the causes of their inadequate renderings, the nature of these renderings, and the effects of applying the required strategies to solve the problems and even prevent them, which consequently can lead to improvements in their interpreting performance.

This general aim materializes in six specific objectives:

- To analyze how a group of experts and a group of novices render the same lexical, syntactic, and cultural elements during the task of SI from English into Arabic and vice versa.
- To analyze the strategies that have been used by experts and novices to overcome the difficulties of rendering the lexical, syntactic and cultural elements during the SI task from English into Arabic and vice versa.
- To study the cognitive processes that show evidence of problems in the performance of experts and novices during the SI task from English into Arabic and vice versa.
- To compare the results between the novices and the experts regarding the problems encountered and strategies applied to solve these problems.
- To study the effect that directionality has regarding the problems encountered and strategies used in SI from English into Arabic and vice versa.
- To design specific recommendations and exercises for trainers in English-Arabic and Arabic-English SI based on the results derived from this study.

1.3 Structure

This dissertation includes five chapters, which will be followed by the discussion and conclusions section, then by the bibliography and appendices.

Chapter 1 constitutes the theoretical framework of this dissertation. It focuses on SI as a Cognitive Process and it can be divided into two main parts. In the first part, I firstly review the product-oriented research, which mainly focuses on the interpreting quality and pays more attention to the target language text, and secondly the process-oriented research, which investigates the cognitive processes involved in SI. The second part of Chapter 1 is devoted to studying the processing models in SI that describe the mechanisms of SI and the concurrent tasks performed by simultaneous interpreters. These models include

Seleskovitch's triangular process model (1962), Gile's efforts model (1995), Seeber's cognitive load model (2011), Gerver's model (1975), and Moser-Mercer's model (1978). The chapter concludes with a discussion on other memory models such as Baddeley's working memory model (1974), and Darò and Fabbro's model (1994).

Chapter 2 focuses on the the notions of “problem” and “strategy”. I have also divided this chapter into two main parts. In the first part, I study the notion of “problem” in translation and interpreting research, with focus on English and Arabic combinations. The second part of this chapter investigates the strategies applied by translators and interpreters to overcome the problems encountered during the process of interpreting. Moreover, I investigate three main typologies of strategies that cover most of the strategies in translation and interpreting, namely: Gile's (1995) coping tactics, Kalina's (1998) classification of interpreting strategies, Al-Salman and Al-Khanji's (2002) communication strategies in SI, upon which subjects' strategic behavior will be based in this research. I conclude this chapter by discussing the notion of directionality, particularly in interpreting, and the main tendencies that support interpreting from language A to language B or vice versa.

In Chapter 3, I present the methodological framework and design of this study. I first describe the methodological steps of the pilot study for both novices and expert in two SI tasks from English into Arabic and vice versa: context, subjects, materials, data collocation, and data analysis. I then present a description of the study starting with expert interpreters: subjects, experiment, data collocation, and data analysis. Finally, I describe the study performed with the novices, including the context, subjects, the experiment, and the data analysis.

I devote Chapter 4 to the analysis of the pilot study, starting with the study involving novices: objectives and a detailed analysis of the novices' interpretations of the Rich Points. It includes the identification of the problems encountered and the solutions subjects applied to solve these problems during both SI tasks. I then present the analysis of the study involving an expert interpreter, which includes a detailed analysis of her interpretation of the Rich Points, in addition to the strategies used to cope with these problems. I conclude this chapter with the results of each group's pilot study, general observations derived from the pilot study, and actions to be taken for the study based on the observations derived from the pilot study.

Chapter 5 is devoted to the analysis of the study, starting with the analysis of the experiment with expert interpreters. It includes measuring the subjects' renderings of lexical, syntactic, and cultural elements during two SI tasks from English into Arabic and vice versa, and the strategies applied to solve these problems. I also identify the nature of adequate renderings and the cognitive processes that show evidence of the problems during both SI tasks. I present the results of the study with experts with a conclusion and a comparison of their performance in the English to Arabic task and the Arabic to English one. Then, I apply the same procedures to analyse the study with novices in both SI tasks. I present a conclusion for the study involving novices and a comparison of their performance in the English to Arabic task and the Arabic to English one. I then conclude the chapter with a comparison between experts and novices regarding the interpretation of lexical, syntactic, and cultural elements in each SI task.

The last section of the dissertation is devoted to the discussion of the results of the experiments with experts and novices. This section also presents the contributions of this study to training in interpreting and the conclusions derived from the experiment of experts and novices. Finally, I end this section by proposing concrete recommendations for future studies.

CHAPTER ONE

THEORETICAL FRAMEWORK: SIMULTANEOUS INTERPRETING AS A COGNITIVE PROCESS

1.1 Simultaneous Interpreting as a Cognitive Process: Development of Simultaneous Interpreting Research

Definitions of interpreting stress its simultaneity and relate it to the distinct mental processes that are included in the interpreting task. In this regard, Pöchhacker (2004: 13) defined interpreting as “a form of translation in which a first and final rendition in another language is produced on the basis of a one-time presentation in a SL”. Many researchers from within and outside the interpreting research paradigm describe the SI process as being complex and difficult as multiple cognitive processes happen recurrently in a limited time, which hinders the possibilities to repeat or clarify once the interpreting starts (Gile, 1995; Moser-Mercer, 1997; Grosjean, 2011; Seeber, 2015).

De Groot (2000: 5) justifies why SI is deemed a complex task, as it requires various cognitive processes that occur at the same time. In this context, the interpreter’s mind is busy with processing the speech from the SL into the TL, which requires comprehending the SL segments. This requires a short time holding and obtaining the meaning of these segments in the interpreter’s memory, while being occupied with formulating the meaning of an earlier segment of the SL speech in the TL and working on the production of another segment of speech (see also Gerver, 1976; Padilla et al., 1995). Researchers studying language and the brain are similarly interested in the cognitive processes underlying the task and consider it one of the most difficult linguistic skills (Grosjean, 2011, cited in Seeber, 2015:79).

Although the evidence of looking at interpreting as a means of communication in contexts such as diplomacy, trade, and warfare goes back a thousand years, research on interpreters and the interpreting process started almost a hundred years ago (Pöchhacker, 2015: 62). Various scholars and researchers have studied SI chronologically based on specific time periods (Gile, 1994). Gile (1994) believes that interpreting research is divided into four periods: (1) Prehistoric period or early stage (1950s), (2) Experimental-Psychology period (1970s), (3) Practitioners’ Period (1970s-1980s), and (4) the Renaissance (post-1980s to

date). In this classification, the development of a timeline is clearly identified rather than the main trends applied in interpreting, which reflects a sense of oversimplification (Schjoldager, 1997, cited in Al-Zawawi, 2019). In support of Giles' view, Drillinger (1989) describes three periods of the study of SI research in his PhD thesis, which are:

- (a) The work of researchers that is not included within translation, especially in the Soviet Union (Chernov, 1979, 1985).
- (b) The work of interpreters and teachers of interpreting, which tackles the didactic and methodical issues in addition to intuitive views of the process of interpreting (Seleskovitch and Lederer, 1984; Seleskovitch, 1968, 1976).
- (c) The work of several experimenters in Europe and North America. Notably, the works of Barik (1975/2002), Gerver (1971, 1974), and Lambert (2004).

El-Zawawi (2019: 14) characterises these views as having a confusing nature from the researchers' part, especially concerning the methods, and the extra attention paid to the geographical factor of the Soviet Union, Europe, and North America. Thus, Dillinger's classification is defective insofar as it similarly simplifies the richness and complexity of the studies conducted on SI and their increasingly interdisciplinary nature. Lamberger-Felber (2001) offers a more detailed classification of research in SL which is systematically classified into three research orientations: content-oriented research, process-oriented research, and form-oriented research. In this classification, content-oriented research mainly investigates the comparison of different renderings for the same SL in order to identify the errors and the strategies applied in the interpreting process.

In process-oriented research, the relationship between the ST and TT has been described as "process markers" in the interpreting process, and through the systematic comparison between ST and TT, interpreting strategies like anticipation, condensation, deverbilisation, or timelag can be investigated. Conversely, form-oriented research includes the study of comparing the form of SL text with the form of TL text during the interpreting process. Form oriented research, thus, has been the focus of interest in recent years as it highlights the importance of studying various variables such as cohesion in interpreting, density of information, and interpreting specific terminology. Lamberger-Felber (2001) supports form-oriented research as it deals with language specification in the interpreting process rather than comparing the interpretations of various language pairs. She describes process-oriented research as product-based inferences in which, in spite of its methodological

shortcomings, the potential benefit of formulating and testing its hypotheses is acceptable (Kalina, 1998: 127ff cited in Lamberger-Felber, 2001).

On the other hand, she describes content-oriented research in SI as didactic. Although Lamberger-Felber's classification is valid for research in SI, El-Zawawi (2019:14) argues that this classification is too restrictive and cannot be applied widely as Lamberger-Felber criticises error typology as pedagogically didactic, and her devaluation of monitoring the process of interpreting through the output questions SI research and ignores the achievements of cognitive science which goes beyond that of linguistic and strategy-based approaches.

1.2 The Relevance of Modes in Conference Interpreting

Pöchhacker (2015: 269) highlights the importance of conceptually distinguishing the different interpreting modes in order to give an overview of the developments and the characteristics of each interpreting mode and to differentiate SI, the main aspect of this study, from other conference interpreting modes. The following sections review several conference interpreting modes, with specific focus on SI.

1.2.1 Consecutive Interpreting

Consecutive interpreting (CI) is a form of conference interpreting that involves listening to the speaker of SL and then, once the speech has finished, the interpreter starts to reproduce the same speech in the TL (Gillies, 2019: 5). The duration of speech may be anything between few seconds (in this case it is called “short consecutive”, in which the speaker pauses after one or two sentences to let the interpreter translate) or sometimes even 5-20 minutes, which is called “long consecutive”. During CI, the interpreter resorts to note taking, memory, and world knowledge to produce the TL text (González et al., 1991, 2012). Before World War II, CI was the only means of conference interpreting, as other modes of interpreting such as SI had not been invented. CI was the main source of interpreting in international conferences and meetings (Gillies, 2019: 5). Although CI is less central in conferences and meetings nowadays, it is still required elsewhere, as it applies less technology and requirements than SI (Jin, 2017). Obviously, CI shares certain features with other interpreting modes such as SI. These interpreting features could be listening to the

speaker, understanding and analysing the SL speech, and then reproducing the speech according to TL norms (Jones, 2002: 6).

Moreover, Christoffels (2004: 7) considers the time between the SL speech delivery and the TL production as the main difference between CI and SI; she adds a) in CI, the interpreter begins the interpretation when SL producer stops speaking during the pauses in the SL (interpreting discontinuously) or at the end of the SL production (interpreting continuously) (see also Gerver, 1976); b) during CI, interpreters usually take notes during the delivery of the SL while in SI, interpreters perform the listening and the speaking functions together at the same time without alternation; and c) regarding the cognitive demands, CI poses large demands on the interpreter's Long-Term Memory (LTM) because interpreters have to produce the TT based on their memory and on the notes. On the other hand, in SI, processing the ongoing information is considered a major challenge to the interpreter's performance (see Christoffels, 2004: 7).

Notwithstanding, CI can be conducted with or without notes. Note-taking is considered the main topic in CI research, especially within the context of long speech or what is called "long consec" or even "true consec" by some practitioners (Russell and Takeda, 2015). Scholars focused on the didactic aspect of CI such as Seleskovitch and Lederer (1995), Gile (2005), and Jones (2002), others interested in researching note-taking as a fundamental feature of CI as Seleskovitch who, in 1973, wrote a PhD dissertation on note-taking in CI (Seleskovitch, 1975, 2002). Among other important topics on CI, we see the interpreter's strategies that are applied to overcome the problems encountered during CI, such as the Gile's (1995: 191) coping strategies that deal with interpreting problems arising from limitations on processing capacity or the interpreter's knowledge base, strategies that are related to cognitive processes in CI (Jones, 1998; Arumí, 2012).

Dam (1993) considers the strategies of substitutions and omissions a preferable option to overcome the difficulties that are caused by "text condensing" in CI. Kalina (1998) sheds light on the strategies of consecutive interpreters related to the identification of macrostructure and the prioritisation of information. Furthermore, different models on the processes of CI have been proposed by various scholars, among them Kade (1963), who is

considered the first researcher who develops a model for CI. This model classifies the process of CI into six stages and produces a detailed description of the relations between these stages in addition to memory and note-taking.

Similarly, Weber (1989: 163) describes CI as a process that includes five stages: hearing, listening, analysis, memorisation and/or note-taking, and interpreting phases. However, hearing is regarded as the main automatic stage that could not be consciously interrupted until it is satisfied to allow the interpreter understand the meaning of the SL (see Al-Zahran, 2007: 99). Gile (1995) had originally developed the “Efforts Model” for the process of SI and then extended it to include CI. In this model, two phases were identified: “listening” which requires the interpreter to listen to the source message and then take the notes, and a “reformulation” in which the interpreter uses the notes and the memory to produce the source message in the TL. Other SI models were applied to the conceptualisation of CI which focus on the role of memory rather than other cognitive aspects of CI. To mention a few: Gerver (1976), Moser (1978), and Setton (1999).

1.2.2 Sight Translation

Sight translation is an oral translation of a written text (Chen, 2015: 144). It is also considered one of the basic modes of interpreting (Cenkova, 2015: 374). During sight translation, the translator/interpreter reads a written text quickly and starts interpreting it orally while it is still under the process of reading (Chen, 2015: 144). Other scholars looked at sight translation as a mixture of written translation and interpreting in which the ST is written and the TT is spoken (Jiménez, 1999; Agrifoglio, 2004; Setton and Motta, 2007; Dragsted and Hansen, 2009). Sight translation becomes sight interpreting when the sight translator accesses the SL transcript and starts translating it while the SL speaker delivers the same speech (Pöchhacker, 2004; Lambert, 2004).

In this regard, Gile (2009: 179) states that sight translation includes “reading the SL in the TL text aloud, when delegates receive a text and want to have it translated orally on the spot, or when a speech segment has been read from a text which is then handed over to the interpreter who is asked to translate it orally”. From the theoretical aspect, Herbert (1952,

cited in Agrifoglio, 2004) believes that sight translation is a type of SI. However, Agrifoglio (2004) decides to conduct an experiment to compare the problems and efforts in CI, SI, and ST. In this study, six expert interpreters participated in ST, CI, and SI tasks from English into Spanish. The results show that in ST the majority of problems encountered by the subjects were related to syntax or grammar and lexis. These problems were mainly related to word-for-word translation and the use of inaccurate lexical items. On the other hand, the failures found in CI which were due to omitting and changing the meaning of the SL segments resulted from failures in note-taking (Agrifoglio, 2004: 52).

In the same line, Gile (2009: 180) differentiates between sight translation and other interpreting modes as: a) in SI, Listening and Analysis Effort becomes a Reading Effort and the Production; b) memory pressure is less in sight translation as compared with other modes because the source text is constantly available to the interpreter; c) in ST, the lack of a speaker's voice prevents segmenting the SL as in hesitations and pauses; and d) when interpreters receive the source text in advance, they can solve certain difficulties or they can hand write a few notes that can help during the task.

With regard to cognitive processes involved in sight translation, Cenkova (2015: 374) claims that the interpreter has the benefit of controlling the processing pace as he/she can access the SL transcript while, at the same time, it imposes more cognitive load as the text is permanently at the interpreter's disposal. Consequently, this raises the risk of lexical and syntactic interference. However, few studies have been conducted on sight interpreting; the most prominent topics are related to sight interpreting pedagogy such as studying the type of processing information in sight interpreting as compared to other interpreting modes (Lambert, 2004) and the experiments conducted by Shreve et al. (2010, 2011a), which reflect that the structure of the source text has a negative effect on the cognitive processes of the sight translator, in addition to the visual interference caused by the presence of the original text in ST (Chen, 2015: 148).

In the same line, simultaneous with text refers to interpreting the SL speech simultaneously, which can be read and accessed by the interpreter, and applied as a SL tool to follow the SL

producer. Due to these auditory and visual inputs, SI with text is considered a cognitive task and differs from SI that is based on speech alone and from sight interpreting/translation that based on written text (Setton, 2015: 385).

1.2.3 Liaison Interpreting

Liaison Interpreting (LI) was first mentioned by Henri van Hoof (1962, cited in Pöchhacker, 2004: 14) to refer to an interpreting mode that is practiced widely in commercial negotiations. However, Gentile et al. (1996: 1) produce a more comprehensive definition to LI which reflects its cultural and social non-conference setting; “ it refers to a growing area of interpreting throughout the world: in business settings, where executives from different cultures and languages meet each other; in meetings between a society’s legal, medical, educational and welfare institutions and its immigrants who speak a different language; in relations between a dominant society and indigenous peoples speaking different languages; in a whole host of less formal situations in tourism, education and cultural contacts”.

This comprehensive definition describes this interpreting mode as an umbrella expression for various areas of community interpreting such as legal, medical, mental health, welfare, religious or educational settings, in addition to court interpreting which is sometimes treated as a separate field in countries such as the United States and Canada (Bancroft et al., 2013, cited in Pöchhacker, 2015: 66). In all these settings, the liaison interpreter is presented in person during the task and is normally located in a position that facilitates eye contact and directly interacts between the SL speaker and TL receiver. In addition, there is the possibility to take a few notes if necessary to produce the TL message after the speaker’s turn in a dialogue (consecutive mode) (Russo, 2013: 1).

In LI, the main components of interpreter’s competence are cultural competence, language skills, memory skills, interpreting techniques, and expert ethics (Gentile et al., 1996: 65). Smirnov (1997; cited in Gentile, 1996: 17) comments on the claim that states that the interpreting activity outside the area of conference interpreting is mostly regarded as LI. She argues that a) “LI ... is conducted in two interpreting directions by one person” whereas conference interpreting is normally done into one language, and normally into the interpreter’s A language; b) LI is usually performed in consecutive mode, whereas most of

conference interpreting is simultaneous (synchronous); c) in contrast to other traditional conference modes, the liaison interpreter is personally present during the LI task as he/she interprets exchanges between the interlocutors (see Ozolins, 1995: 153).

One of the prominent studies on LI is the study conducted by Hsieh (2003) which explores the different variables that influence individuals' behaviours (the interpreter's, speaker's, and the audience's behaviours) in an interpreting event. In contrast, Zahner (1990) applies a simple model of memory to look at some of the underlying conceptual issues used in LI. Moreover, Ozolins (1995) investigates themes of translation theory from the LI point of view.

1.2.4 Simultaneous Interpreting

This is the main setting of this thesis; SI can be broadly defined as an interpreting mode in which the interpreter's rendering is delivered in synchrony with understanding and comprehending the SL speech into the TL with the processing time lag (normally a few seconds) between the SL speech and the TL interpretation (Diriker, 2015: 382). In SI mode, the interpreter is required to sit in a soundproof booth with SI equipment which prevents acoustic overlap between the SL speech that listened to via headphones, and the TL interpretation that is spoken into a microphone (Setton, 1999; Pöchhacker, 2015).

This is in line with the International Association of Conference Interpreters' (AIIC) view: "the interpreter, in simultaneous mode, sits in a booth with a clear view of the meeting room and the speaker and listens to and simultaneously interprets the speech into a TL" (see Seeber, 2015). Gile (2009) believes that SI can be conducted with or without electronic equipment, with at least two interpreters every thirty minutes who can take turns because of the high pressure that continuous operation imposes if only one person is involved. Starting from the second half of the 20th century, various practitioners and teachers of interpreting attempted to conceptualise the components of SI with reference to the mental processes involved in the task. The first scholar who described the components of the process by invoking translation was Herbert (1952).

This scholar argues that the process of SI consists of three components, namely understanding, conversion, and delivery. This classification is compatible with Seleskovitch and Lederer's (1984) taxonomy which divides SI into three principal components: comprehension, deverbalisation and expression (see Seeber, 2015: 81). In an attempt to study SI, Christoffels (2004) illustrates three approaches that have been considered by researchers and scholars of interpreting. The first approach focuses on the production stage of SI under different circumstances. The second approach investigates the complexity of the SI task by comparing it with other tasks such as shadowing and listening, which helps to acquire detailed knowledge about the process of SI. Moreover, the third approach focuses on the complexity of SI by studying and comparing between expert interpreters and novices or untrained bilinguals.

1.2.4.1 General Characteristics of Simultaneous Interpreting

SI as an important mode of interpreting characterised by various aspects that differentiate it from other interpreting modes. Among the main features of SI that were the focus of interests of different scholars and interpreting researchers are the simultaneous occurrences of both comprehension and production processes, complexity of the task, time lag between the ST and the TT, and the unit of interpretation (Christoffels, 2004; see Seeber, 2015).

1.2.4.1.1 The Simultaneity of the Task

The simultaneity of SL speech reception and TL speech production is a distinctive feature of SI: the interpreter should comprehend the SL message and the same message has to be delivered concurrently in the TL (MacWhinney, 1997). In this case, the interpreter should conceptually divide his/her attention into understanding the SL speech and producing earlier segments of that speech into the TL (Christoffels, 2004: 8). From the psychological point of view, Barik (1973) indicates that at any moment the interpreter undertakes the following tasks simultaneously or in rapid sequence: a) listening to speaker's speech, b) understanding its meaning, c) transferring the message into the TL, d) producing the interpreted message according to TL norms. Furthermore, Barik concludes that all these cognitive processes must be done in real time as the interpreter has to preserve the same pace as the speaker.

Research on simultaneity in SI started after the invention of the multichannel tape recorder and were adopted by several researchers such as Barik (1969), Gerver (1974) and Chernov (1994: 139). The claim that interpreters crammed as much of their TL rendering as they could into the SL producer's pauses and hesitations in the SL so as to avoid simultaneous speaking and listening was clearly examined by Barik (1969) in a very first doctoral thesis on SI. Barik (1969) investigates the extent of simultaneity, or the interference between the SL speech and output. One of the findings of this study reflects the interpreters take the advantage of delivering the TL rendering when the speaker pauses during the SL speech. In the same line, Goldman-Eisler (1967: 128) identifies this point and conceives that "intermittent silence between chunks of speech [in the speaker's utterance] is a very valuable commodity for the simultaneous translator; for the more of his own output, he can crowd into his source's pauses, the more time he has to listen without interference from his own output". This point was not clearly identified in the research conducted by Oléron and Nanpon (1965/ 2002) which focused on the time lag between the SL and the TL and the simultaneity between the SL speech and the TL production.

In this context, Chernov (1994) believes that most of the studies on simultaneity in SI state that for approximately 70% of the time, interpreters speak and listen simultaneously, which reflects the concurrent comprehension and production that consumes most of the SI time (Goldman-Eisler, 1972; Christoffels, 2004). The simultaneity of interpreting is a key point of the difficulties that interpreters encounter during the interpreting task which sometimes becomes an automatic act for expert interpreters due to the training and the experience they gain. Simultaneity of interpreting may lead to identify other characteristics of SI such as the complexity of the process, which is described in the following section.

1.2.4.1.2 Complexity of Simultaneous Interpreting

SI is considered as one of the most complex language activities imaginable as it requires several cognitive tasks to be carried out at the same time (Lambert, 2004; Christoffels, 2004). These tasks include receiving the new SL chunks continuously while the interpreter is engaged simultaneously in listening and understanding those chunks and holding other segments in their Short-Term Memory (STM). At the same time, an earlier part is supposed to be cognitively processed into the TL and an even earlier part should be produced (Gerver,

1976; Padilla et al., 1995; Christoffels, 2004). Notwithstanding, researchers such as Setton (1999) argue that the different tasks involved in the process of SI can be applied comfortably. Many researchers from within and outside the field of interpreting describe SI as a complex and difficult task (Barik, 1973; Gile, 1995; Grosjean, 2011; Moser-Mercer, 1997).

In an attempt to describe the novelty of SI, researchers and scholars in the field of interpreting studies struggle to conceptualise the relationship between different cognitive processes within SI such as the comprehension and production component. In order to solve this issue, Herbert (1952) invokes a translation component when he classifies the task into three components, namely, understanding, conversion, and delivery. The aspect of complexity in SI was clearly considered in the early research of psychologists such as Barik (1973), who describes the SI task purely in terms of comprehension (reception and decoding) and production (encoding and emitting) (see Seeber, 2015: 81).

Moreover, Gile (1997) discusses the complexity of SI when he claims that even expert interpreters may commit some mistakes per minute, which supports the claim that complexity in SI is regarded as a challenging enterprise (see Christoffels, 2004). There is unanimous agreement about the demanding and complex nature of SI within the field of interpreting due to the multiple tasks carried out during the process, which requires linguistic and extralinguistic efforts from the interpreters in order to cope with all these cognitive processes in the SI task. However, the time between speaker's SL production and interpreter's TL articulation can determine the amount of demand that SI poses on the interpreters as long and short time has negative reflections on the process of interpreting and on the performance of the interpreters. This time as it is called the Ear Voice Span "EVS" or the "time lag" or will be discussed in the coming section.

1.2.4.1.3 The Lag Between Source and Target Message

The Time Lag or sometimes referred to by the French term *décalage*, is the delay between the SL production and the interpreter's TL articulation (Timarova et al., 2015: 418). It is also called ear-voice span (EVS) to refer to the interval that indicates the period of time that

is required to interpret the SL information (Oléron and Nanpon 1965; Barik, 1971; Gerver, 1971). To understand the reason for its existence, Anderson (1994: 102) illustrates why the delay exists in SI; he believes that lag time occurs as a result of the accumulation of SL segments in a sort of buffer storage while the central processor is engaged with processing the previously received information.

Long lags help interpreters get larger chunks of input to process, however the limited capacity of the buffer storage may cause omission of important items of output. Barik (1973), on the other hand, argues that short lag may alleviate cognitive load but at the same time, it could cause errors in the interpreter's output as the interpreter may not be able to produce adequate TL renderings (Gerver, 1974, cited in Anderson, 1994:102). Furthermore, research reflects that time lags of more than four seconds may have a negative impact on the quality of the interpreter's output (Lee, 2002; Timarová et al., 2014), particularly when the currently processed information stored in the interpreter's Working Memory (WM) comes from different sentences (Lee, 2003).

In their earlier studies, various interpreters and psychologists tackle the topic of time lag in SI, focusing on aspects such as measuring the delay between SL production and TL articulation (Paneth, 1957, 2002; Barik, 1973; Oléron and Nanpon 1965, 2002; Treisman, 1965). Moreover, Paneth (1957, 2002) claims that interpreters are not concerned with what they hear but with what they have originally heard. Thus, Paneth examines the time lag in fieldwork data and discovers that the average time between a speaker's message and the interpreter's delivery is between two and four seconds. Similarly, other measurements of the average time lag show almost the same results. However, in individual cases the average time lag could be more than 10 seconds or might be negative when the interpreter applies the strategy of anticipation, which relies on the accumulated experience of interpreters in addition to the type of the text (Timarova, 2015: 418).

Experimental studies conducted to compare the time lag in interpreting with other tasks indicate that the time lag reflects the cognitive processes involved with even simple tasks such as repetition. In the same context, Oléron and Nanpon (1965, 2002), investigate the delay in repeating a word in the same language and during its translation. These researchers

realise that the average time lag for word translation approximately 1.5 times longer than for repetition. Moreover, Treisman (1965) compares between SI and shadowing. Similarly, this study shows longer lag times for interpreting (2.8 seconds) than for shadowing (1.3 seconds). In fact, the nature of the input message determines the time lag required to process in terms of the difficulties that may come up from this message. However, the interpreter's experience may help to manage the cognitive load that causes long delays between the SL production and the TL articulation.

1.3 Main Approaches to Studying Simultaneous Interpreting

The study of interpreting is no longer considered to be sheer alchemy, as people became curious to know what exactly happens in the interpreter's mind during the process of interpreting (Shlesinger, 2000: 3). Therefore, and to answer this question, linguists, psycholinguists, and researchers tried to develop theories and propose models to study the involvement of cognitive processes in the SI task. This period is described by Gile (1995) as the experimental psychology period, in which new tendencies to study interpreting processes emerged. As we have already mentioned, interpreting can be mainly studied from two different perspectives, namely, the product-oriented approach and the process-oriented approach (see Korpál, 2016:16).

1.3.1 Product-Oriented Approach

In the product-oriented approach to SI, the interest is mainly concerned with the textual and linguistic characteristics of complete TL output, rather than tracing the cognitive processes that are involved during the interpreting process (Korpál, 2016 :15). In this context, Dam (1998: 52) argues that the question in this approach is not to investigate how interpreters process a ST, but to study the nature of the TT that is produced during the interpreting process. Several studies have been investigated within the product-oriented approach, such as studying the quality of interpreting (Bühler, 1986; Kurz, 1993), error analysis (Barik, 1994; Altman, 1994; Falbo, 2002), interpreting strategies (Gile, 1995; Riccardi, 1996; Kalina, 1998), and the style of interpreting (Shlesinger 1989, 1991).

One of the main topics in product-oriented research that has received wide attention by scholars and researchers is the quality of interpreting, as in the work of Pöchhacker (2004), who described the quality in interpreting as a mixture of different aspects that play an important part in the interpreting process. According to Pöchhacker (2004: 153), “quality does not appear as a self-contained topic but, as a complex, overarching theme in which all aspects of the interpreter’s product and performance – textuality, source–target correspondence, communicative effect, and role performance – play an integral part”. Research into the quality of interpreting has been thoroughly investigated within the field of interpreting studies starting from 1980s (Bühler, 1986; Kopczyński, 1994; Moser-Mercer, 1996; Shlesinger, 1997; Pöchhacker, 2001, 2005; Collados Aís, 1998, 2002).

Scholars like Bühler (1986) and Kurz (1993) did research in the field of quality assessment as they both examine the interpreter’s perception of quality based on a large-scale survey for interpreters and other user groups. Both surveys come up with almost the same result, in which the interpreting process is acceptable as long as it achieves its aim. In this context, good interpreting depends on variables such as situational and communicative context rather than its absolute value (Tiselius and Jensen, 2011: 273).

Ericsson and Smith (1991: 15), on the other hand, studied the relationship between quality and the investigation of expertise, as this researcher asserts “although judges can reliably assess the superior quality of the product, it is difficult to analyse such products in order to identify the measurable aspects capturing the superior quality of the product”. Hence, it is necessary to correlate the evaluation of quality with studying the cognitive processes that are involved in producing a certain quality during the interpreting process (see Tiselius, 2013: 73). Another key point in the product-oriented research to SI is the study of error analysis, which can be conceived as a means to pedagogy and research that is mainly concerned with the study of interpreting output as the product of the interpreting process (Falbo, 2002).

In order to analyse his empirical corpus of interpretation, Barik (1971, 1975, 2002) proposes a complete classification of “translation departures” which were listed under omission, addition, and substitution (or errors of translation) that occur in SI. In addition to these types, Barik subdivides substitution (errors in translation) into five categories of “combination of omission and addition”, which obviously indicates that these categories are described with

the lack of an accurate definition and methodological certainty (Falbo, 2002: 143). Moreover, Altman (1994) initiates a taxonomy of errors/mistakes in SI which were divided according to the type and seriousness. She investigates the most encountered errors/mistakes in SI based on how seriously an error affects the communicative function of the SL message. Therefore, errors are classified into omission, addition, inaccurate interpretation, distortion of longer phrases through errors, lack of fluency, and loss of rhetorical effect for mistakes (Lambert and Moser-Mercer, 1994: 7). Obviously, the studies conducted within the product-oriented research were focused on the TL production. However, these studies did not refer to the cognitive processes involved in the interpreting process which were investigated within the perspective of the process-oriented approach.

1.3.2 Process-Oriented Approach

The shift in interest to the study of interpreting as a process-oriented approach (i.e., focusing on the cognitive processes that are used in the SI process) rather than on the product-oriented approach (i.e., focusing on the TT and its relation to the ST) in translation and interpreting started in the second half of 20th century (Holmes, 1972; Krings, 1986; Lörcher, 1991; Baker, 1992; Snell-Hornby et al., 1992; Englund-Dimitrova, 2005). The first attempt to include process-oriented research in translation goes back to the charting made by Holmes (1972) in which process-oriented research is included within the descriptive study of translation which is called “translation psychology or psycho-translation studies” (Angelone et al., 2016: 43). Meanwhile, in the field of interpreting studies, process-oriented research focuses on proposing models, testing hypotheses, and conducting empirical research in the simultaneous mode, as Pöchhacker (2004: 113) claims that the majority of process-oriented studies rely on methods and insights reflected by cognitive sciences and concentrates on the spoken part of conference interpreting in the simultaneous mode.

In the field of interpreting studies, process-oriented research started with developing the “Interpreting Theory”, formerly known as the “Theory of Sense”, which was proposed by Seleskovitch (1977, 1981) and with Lederer (Seleskovitch and Lederer, 1989). This was the first attempt to peek inside the black box of interpreters to trace the cognitive processes that are involved in SI (Shlesinger, 2000: 3). While the “Theory of Interpreting” was developed by practitioners, cognitive psychologists studied the mental operations that are involved in the interpreter’s black box during the interpreting process from the reception stage of the SL input to the production stage of the TL output (Gerver, 1975, 1976; Moser-Mercer, 1978).

Studies within process-oriented research investigate the behaviour of interpreters and non-interpreters by applying experimental methods, such as in the studies conducted to measure the recalling of prose in listening, SI, and shadowing (Gerver, 1974; Darò and Fabbro, 1994). The results of these studies indicate that SI, as compared with other modes of concurrent articulations, negatively affects the process of recalling. In contrast, Isham (1995) argues that this result is not true with all interpreting modes, which supports the claim that phonological interference affects the comprehension process during the interpreting task (Christoffels, 2006; Christoffels and de Groot, 2004; see Pöchhacker, 2015: 59). Other scholars have also been interested in investigating the topic of time lag or Ear Voice Span (EVS) in interpreting, which refers to the period of time between the SL input and the output of the interpreter (Oléron and Nanpon, 1965, 2002; Goldman-Eisler, 1972).

The investigation within the process orientation in translation and interpreting indicates the use of more developed research tools and data collection methods such as retrospective protocols inspired by Think-Aloud Protocols (TAPs) (Vik-Tuovinen, 2002), eye-tracking processes (Tommola and Niemi, 1986; Dragsted and Hansen, 2008), pupillometry through eye tracking (O’Brien, 2006), task modality (Hyönä et al., 1995) electroencephalography (EEG) (Kaan, 2007). In the same line, Špakov et al. (2009) applied electro-encephalogram (EEG), electrooculogram (EOG), and electrocardiogram (ECG) to develop the integrating model in translation.

1.4 Unit of Interpreting

The unit of interpreting is closely related to the time lag or the EVS between the SL production and the TL interpretation which may constitute the unit of interpreting (Christoffels, 2004: 10). Hence, a span consists of at least more than one word, which reflects that a unit of interpreting includes several words that can be rephrased easier than translating each word individually (Goldman-Eisler, 1972; Schweda-Nicholson, 1987). The notion of the interpreting unit appeared clearly in early studies such as in the work of Lederer (1978), who introduced a meaning unit (chunk) to refer to a group of words which has a representation in the interpreter's STM and associates it with the cognitive background to be produced in TL as a meaningful chunk.

In the same line, Jones (2002: 74) conceives that the meaning unit is a cognitive representation in the mind of the interpreter for the speaker's intended meaning and this cognitive representation constitutes the speakers' words and the use of these words in the LTM of the interpreter. Jones (2002), in contrast with Christoffels (2004), believes that a unit of meaning can be one word as long as it engenders a clear cognitive representation in the interpreter's mind. Moreover, interpreting units were studied in terms of input segmentation in various psychological studies such as Barik (1973), who supports Goldman-Eisler's (1972) claim that interpreters would deliberately divide the ST into meaningful segments by using several pauses.

In her study, Goldman-Eisler (1972) discovers 48% of the total interpreting time in which interpreters begin their rendering before the production of the ST (utterance between pauses) and 41% of the time interpreters lag for two or more segments, while another 11% of the time are spent waiting for a pause after a chunk to begin processing. This shows that interpreters do not only abide by the speaker's SL chunking but strategically resort to segmenting the ST (Christoffels, 2004: 10). Furthermore, Goldman-Eisler (1972: 131) finds that in 90% to 95% of the cases in her study, interpreter's segments include at least a "complete predicative expression" (see Dillinger, 1989: 11).

Christoffels (2004: 10) suggests a clause to be a good unit of interpreting. However, the interpreter's strategies might have an effect on the size of the interpreting unit. Chunking or segmentation of speech input is considered one of the interpreter's strategies that he/she resorts to in order to cope with the speaker's output via dividing the long chunks of the interpreter's output into meaningful units. However, the size of the chunk is still a controversial issue among various researchers (see Riccardi, 2005; Piccaluga et al., 2007; Camayd-Freixas, 2011). Interpreting units could be based on different aspects such as the interpreter's comprehension of the SL speech, the difficulties of that speech, and the strategies applied by the interpreter to cope with the challenges of rendering. These could be among the most important aspects that may determine the unit of interpreting.

1.5 Simultaneous Interpreting as a Cognitive Phenomenon

The interest of studying the cognitive processes in both translation and interpreting has progressively increased by translators and interpreters since early 1980s because of the high cognitive demand it imposes (Shereve and Koby, see Danks et al., 1997; Shereve et al., 2010). Moghadas (2015: 251) defines the cognitive processes that are involved in interpreting as "a set of all mental activities that are related to attention, understanding language, comprehension, WM, production of TL, problem solving, etc."

As mentioned earlier, the earliest and most general description of interpreting regarding the cognitive processes was done by Herbert (1952: 9), who states that "interpretation really includes three main components: (a) understanding; (b) conversion; (c) delivery." However, Herbert's view of the central translational component was restricted to language problems and questions of interpreting technique, with reference to the underlying cognitive processes.

The first attempt that mainly involved studying the cognitive processes in interpreting and described the interpreter's black box was conducted by the French interpreter and teacher Seleskovitch (Seleskovitch, 1968; Seleskovitch and Lederer, 1984). In her theory of sense, she classifies interpreting into three interrelated phases: a) understanding or comprehension, which includes not merely the linguistic processing but the cognitive inputs of contextual knowledge; b) deverbalisation or the "sense", which is considered the core concept of

interpretive theory and derived cognitively from the cognitive input and linguistically elicited from the linguistic decoding of the first phase “comprehension”; and c) re-expression or reformulation: which is the final phase that produces the TL from non-verbal level of cognition (Angelone et al., 2016: 44).

According to key researchers, “deverbalisation” plays a fundamental part in the process of SI between comprehension and reformulation (Gile, 1995; Dam, 1998; Lederer, 2003). Interpreting is clearly classified into three main processes and skills: comprehension, translation, and production (Gernsbacher and Shlesinger, 1997; Liu, 2008). Other scholars, on the other hand, conceptualise the process of interpreting into understanding or comprehension of the speaker’s input, short term, long term, and WM, and the reproduction or re-expression of the TL output (Gerver, 1971; Baddeley and Hitch, 1974; Moser, 1978; Gile, 2009; Setton, 1999; Christoffels and de Groot, 2005; Seeber, 2011). These processes and models that explain the process of interpreting will be discussed in the following sections.

1.5.1 Comprehension Phase of the Interpreting Process

Language comprehension is considered one of the rich areas of investigation in different fields including psychology, linguistics, and psycholinguistics. Different scholars looked at the process of comprehension in interpreting from various angles. Seleskovitch (1988: 49) states that comprehension takes place in interpreting when the new information (SL input) matches the existing knowledge. Otherwise, the new information will be neglected, which consequently affects the interpreting process. On the other hand, Gile (1995: 198) produces a more detailed description of the process of comprehension when he states “all comprehension-oriented operations, from the analysis of the sound waves carrying the SL speech through the identification of words, to the final decision about the meaning of the sentence”

During the interpreting process, SL meaning has to be comprehended in order to be properly produced in the TL as reformulating the SL segments and producing them in the TT are mainly based on the comprehension process of the SL message (Padilla, 1995; Gile, 1995; Yudes et al., 2013). Therefore, it is recommended that interpreters should dedicate 80% of their cognitive effort to the listening and comprehension process while only 20% to speech

production (Gile, 1995; Padilla et al., 1995). Obviously, comprehension is a “constructive” cognitive process that can be represented in various levels, from the phonological, lexical, and syntactic, to the levels of text and discourse in their situational context (Padilla and Bajo, 1995; see also Pöchhacker, 2015 :71). As long as the cognitive processes take place simultaneously in the task of interpreting, interpreters should be able to use their available cognitive resources to produce appropriate interpreting (Gile, 2009).

Gile (2009) adds that the interpreter should comprehend the logical and functional aspects of the ST which form the original message. Hence, comprehension processes are closely related to producing the same message in the TL which reflects the meaning of the source message (Yudes et al., 2013). Various analytical models investigate the importance of background knowledge that helps the interpreter to generate strategies such as segmentation and expectation during SI. Chernov’s (1979, 2002, 2004) probability and prediction model is based on discourse-oriented linguistics which relates the use of expectation and anticipation strategies to the inherent redundancy of the SL message, in addition to the probabilistic nature of discourse.

Furthermore, Chernov (1979, 2002) focuses on the interpreters’ background knowledge when she states: “the semantic component of the suggested model interacts most closely with the individual’s store of knowledge in general, and with the situational context of communication in particular” (1979, 2002: 106). This model is mainly supporting the psychological models of discourse comprehension, such as the Construction-Integration Model (Van Dijk and Kintsch, 1983) and the Structure Building Framework (Gernsbacher, 1990). Several studies have focused on the use of comprehension strategies during the interpreting task for different participants. Bajo et al. (2000), in their experiment, asked novice interpreters, expert interpreters, bilingual speakers, and control participants to perform text comprehension, lexical decision, and categorisation tasks.

The study shows that the expert interpreters are the fastest group in all interpreting tasks, particularly when more complex stimulus relations were applied. Thus, the same results appear in other tasks such as word by word reading, in which they skipped nonwords and categorised nontypical exemplars better than bilinguals and control participants (see Yudes et al., 2013). In contrast, Dillinger (1989, 1990) provides evidence that there are no qualitative differences in the application of comprehension processes between experienced

interpreters and other individuals in the study of the effect of text structure on the interpreter's comprehension. In his experiment, expert interpreters and inexperienced bilinguals conducted firstly, based on accuracy, a SI task from English into French for narrative and expository texts and, secondly, had to memorise the ST one by one. The results indicate the absence of significant difference in the performance of both groups, specifically in syntactic processing, which reflects those expert interpreters and inexperienced bilinguals apply the same cognitive processes and interpreting strategies to understand the SL texts (see Liu, 2008: 161).

This study is compatible with the findings of the analysis performed by Setton (1999: 270) in his corpus-based study of expert interpreters' performance during Chinese–English and German–English SI tasks, which elucidated that the differences in SL and TL grammatical structures do not hamper the interpreting process. On the contrary, Tommola and Helevä (1998) produce different results in an experimental study applied to student interpreters who normally render from English into Finnish. The results show that the syntactic complexity has a great effect in terms of accuracy of the output as measured by propositional analysis. In spite of the interesting results of Dillinger's (1989) study, several critics questioned the validity of its findings. Moser-Mercer (1995) claims that his findings are unexpected, regarding the differences between expert interpreters and inexperienced bilinguals. Moser-Mercer concludes to question the validity of Dillinger's (1989) study, since he does not mention if similar findings can be obtained with “more complex text materials or at higher presentation rates”: the study focused on comprehension without being specific on memory and production.

Obviously, the nature of SL and TL syntactic systems can determine the difference between expert interpreters and inexperienced bilinguals, as in the case of English and Arabic combination, which have different syntactic systems. In other words, interpreting between two distant languages requires training on coping with linguistic and extralinguistic difficulties that are encountered during the interpreting process. This point is deemed as a basic feature of experts' performance as compared to inexperienced bilinguals.

1.5.2 Memory System

The research on memory contributes greatly to interpreting studies as it can offer important key points to account for various cognitive issues that are involved in SI. Memory, as a major component of the interpreting process, includes several processes that are closely related to acquiring information (encoding), keeping it for a period of time (storage), and subsequently retrieving it (retrieval) when needed. These processes involve the interaction of several memory systems and their underlying brain circuits (Bajo and Padilla, 2015: 253). In one of the influential studies on memory, Atkinson and Shiffrin (1968) develop a classification of the memory system which includes three main categories: SM, STM, and LTM.

From the cognitive psychological perspective, the sequence of information according to their classification starts with transferring the information from a SM to short term memory within a second, which holds it for 20-30 seconds with rehearsal and repetition, and then finally it moves to long term memory, which stores unlimited information (Padilla et al., 2000; Gile, 2009; Bajo and Padilla, 2015; Ahrens, 2017). Within the field of interpreting, Liu (2009) defines these memory categories accordingly: the “SM” as the premise of interpretation, “STM” as the key to interpretation, and “long-term memory” as the basis for interpretation. The role of SM for further processing of information is crucial as it lets the information to be kept to then move to the following stage of storage, particularly in SI, in which the interpreters are required to have an instant ability to retain the information, and that is one of the essential characteristics of simultaneous interpreters (Guo, 2016: 105).

On the other hand, the STM or, as it is called, “WM”, is a complex memory system that stores the information for a short duration of time. It likely plays an essential role especially in SI because it usually stores and processes the information simultaneously (Gathercole and Baddeley, 1993; Baddeley, 2000; Baddeley and Hitch, 1974). Moreover, the WM is regarded as a restricted-capacity mechanism that is responsible for processing and retaining the active information in very limited time during the interpreting process (Baddeley and Hitch, 1974).

The duration between the input and output (time lag), with an average of 2-3 seconds or 4-5 words, is considered to be the main reason for SI to be a complex process with regard to

the storage capacity of the memory (Treisman, 1965; Barik, 1973; Gerver, 1976; Goldman-Eisler, 1972; Anderson, 1994; Christoffels and de Groot, 2004). In cognitive psychology, the term “short term memory” is basically related to storage capacity. Therefore, Baddeley and Hitch (1974) suggested the WM to be more concerned with the cognitive processes that are involved during the interpreting task. On the other hand, Kintsch (1988: 217) defines the LTM as “everything a person knows and remembers: episodic memory, semantic memory, as well as declarative and procedural knowledge.”

The difference between the LTM and the STM is that the former can store the information for longer periods of time while the latter stores the information for a very short time and prepares it for processing. Therefore, the interpreter needs to have a rapid response to recall the incoming information kept in LTM (Gou, 2016: 109). Various confusing terms were given to these categories of the memory system within the literature of interpreting (Timarová, 2008; Jin, 2011).

STM/WM

- operational memory (Gerver, 1976)
- generated abstract memory (GAM) (Moser, 1978)
- verbal memory (VM) (Darò and Fabbro, 1994: 365)
- STM (Lambert, 2004)
- a mixed use of STM and WM (Gile, 1995)
- WM (Christoffels et al., 2003: 202)

LTM

- LTM (Lambert, 1992)
- remembering (Gile, 1995:176)

In cognitive psychology, STM is considered among the non-automatic operations that requires storing the information in the memory for later use (Richards, 1980: 49). This information may take more time in the memory due to the search for the appropriate word or syntactic structures and extra information required for the process, or sometimes the interpreter resorts to keeping the information in the memory before reformulating it in order to deal with comprehension and production problems such as fast delivery rate, dense information, unclear speech, unusual linguistic structure, speaker’s accent (Gile, 2009: 166).

Atkinson and Shiffrin (1968) and Gile (1995) divide the memory system of humans into three memory components: SM, STM and LTM. Figure 1 shows the human memory system:

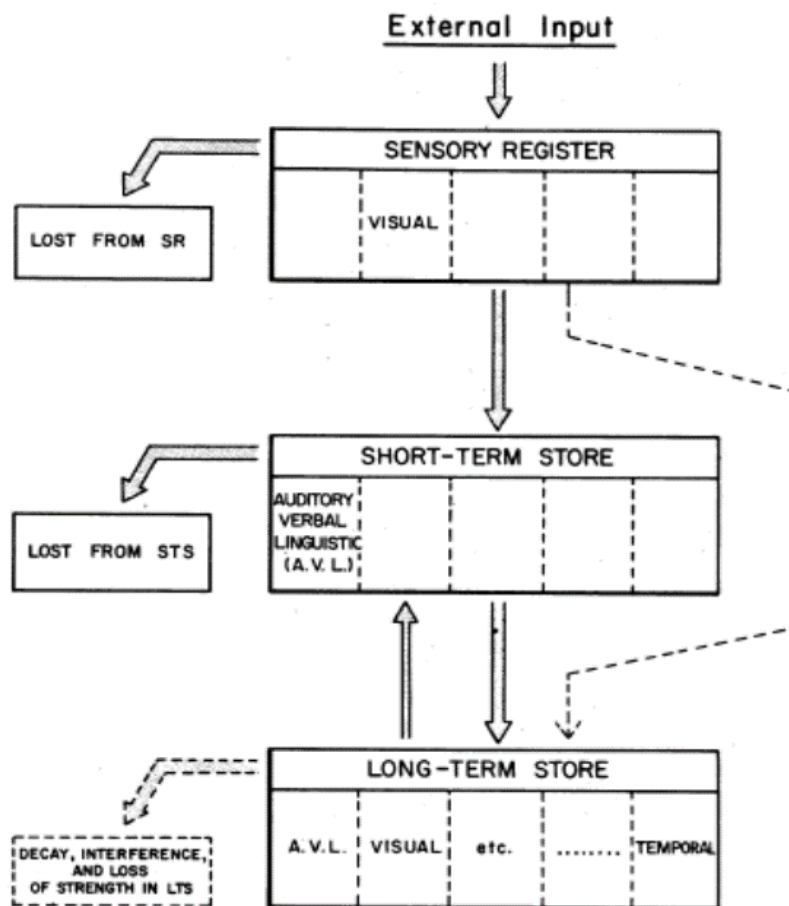


Fig. 1: Structure of the human memory system (Atkinson and Shiffrin, 1968: 10).

When a stimulus is produced, there would be an immediate registration in the sensory dimensions. This form of registration is comprehended adequately in the form of a visual system which throughout its particular characteristics can be considered as an independent component of memory while the information in this component can be kept for several hundred milliseconds (Sperling, 1960, cited in Atkinson and Shiffrin, 1968: 10). The second important component of the human memory system is the short-term store, in which the information vanishes entirely. However, the time required for the information to disappear is longer than that of the sensory component.

The precise rate of information decay in the STM cannot be measured easily since it depends on the interpreter's-controlled processes, however, there is evidence of a period of 15-30 seconds for the information to disappear in the auditory-verbal mode. The third memory component according to Atkinson and Shiffrin (1968: 10) is the long-term store, which differs from the preceding stores in that the information stored in this component is permanent and does not decay or disappear as it does with other components. The interpreter controls the flow of information among the three systems, starting from the SM where the information first stores for a very short time. The next step is the interpreter's-controlled scan of the information in the SM and through which the information is introduced into the STM. The transfer of information to the long-term store is influenced by the time of information stored at the STM and the interpreter's control processing. The transfer of information from the sensory store to the long-term store is not yet known. However, the transference of the information from the long-term storage to the short-term storage is possible under the interpreter's control in certain cases such as problem solving, hypothesis testing, and general thinking procedures (Atkinson and Shiffrin, 1968: 11).

Several studies have been mostly conducted in the field of interpreting to compare WM, as a central component of SI demanding nature, between expert interpreters, interpreting students, and untrained bilinguals in order to support or refute the claim that the storing capacity of experts' WM is larger than that of other categories (Darò and Fabbro, 1994; Christoffels et al., 2003; Liu et al., 2004). Other studies reflect the advantage of experts having larger verbal WM and STM spans than various control groups (Bajo et al., 2000; Christoffels et al., 2006; Padilla et al., 1995; Stavrakaki et al., 2012). In contrast, Liu et al. (2004) indicate that there is no big difference between expert and student interpreters in relation to WM capacity as there is no obvious proof that supports the claim that the differences between expert interpreters and the control groups result from extended practice of the skill or from differences in cognitive abilities (Pöchhacker, 2016: 111).

It is conceivable that the demanding nature of SI is not possible due to an increased memory capacity, but it is related to the automation of processing the information in the interpreter's brain. This process will lead to subconscious rendering with less constraints by the brain's capacity limits (Styles, 1997, cited in Seeber, 2015). The main models of WM in addition to Gile's memory efforts model (1995) for SI will be discussed in the following sections.

1.5.3 Production Phase of the Interpreting Process

In SI, the process of production is defined as “the set of operations extending from the mental representation of the message to be delivered to speech planning and the performance of the speech plan, including self-monitoring and self-correction when necessary” (Gile, 2009: 163). The production process, as compared to other cognitive processes, received less attention in the field of interpreting because of its difficult nature that can be manipulated experimentally (Setton, 1999: 92). Psycholinguists therefore adopted the investigation of production processes by proposing models and conducting experimental research. Studies in the psychology of SI have received significant attention from the early time of interpreting (Barik, 1972, 1973; Goldman-Eisler, 1972). However, there is other recent psycholinguistic research on SI which investigate the mechanism of self-repair during SI (Petite, 2005), the process of speech production during the SI (de Bot, 2000; Moser-Mercer, 1978, 2002), speakers’ slips and interpreters’ correction (Van Besien and Meuleman, 2004), and the speech disfluencies during the SI (Tissi, 2000; Bakti, 2009).

One of the important models of the process of speech production is the three stages model of speaking which is developed by Levelt (1989). In this model, the speech production process includes a “conceptualizer” which creates preverbal messages, a “formulator” to encode these messages as inner speech, and an “articulator” to produce the “overt speech” (Pöchhacker, 2016: 117). This model has been adapted by scholars such as Setton (1999) and de Bot (2000) as its account of bilingualism and SI contains an essential description of production in earlier models (Pöchhacker, 2016: 117). Matthei (1985: 114) refutes the claim that says speech production is an unchallengeable process as in speech comprehension process: “... the fact that virtually all people make many false starts, add ums and ahs, and often speak ungrammatically, suggests that production may be making quite a number of very substantial demands on our linguistic systems”. The process of production has various forms that have crucial effects in the process of SI such as language monitoring, disfluencies, and pauses, which will be studied in the following sections.

1.5.3.1 Language Monitoring as a Form of Production Phase in Interpreting

One of the essential forms of language production in monolingual speech is monitoring, which has been mainly considered in Levelt (1989) model of language production. Gerver

(1976) tackled the “monitoring” process in language production, in which two cycles of monitoring have been suggested in SI: a) pre-articulatory; b) post-articulatory test of the TL output (Ivanova, 2000). Furthermore, Gerver (1976) was the first one who noticed that conference interpreters correct themselves during the interpreting process. Therefore, he proposed a short-term buffer store for TL monitoring in his SI model (Mead, 2015: 334). However, Chernov (1994: 149) believes that the interpreter dedicates his/her attention to monitoring the process of speech production only when the level of redundancy of the ST is adequate and the comprehension process is unaffected.

On the other hand, Bakti and Bona (2016) state that self-monitoring analysis has a particular importance particularly in SI when SL comprehension and TL production take place instantaneously. In their experiment, Bakti and Bona (2016) compare the processes of self-monitoring in the TT that were rendered from English into Hungarian by trainee interpreters and expert interpreters. In this study, the restarts, the editing phases of repetitions, self-repairs, frequency of incidence of disfluencies, and the frequency of incidence error-type disfluencies were examined. The two researchers find that there are not as many phenomena connected to self-monitoring in the TL production of interpreters as in monolingual Hungarian texts.

1.5.3.2 Disfluency

Research on speech errors and disfluency that are produced by speakers have been conducted by psychologists from the 1950s to be a window to cognitive processes that are involved in speaking (Goldman-Eisler, 1972; Dell, 1986; Levelt, 1989;). In these studies, systematic proof has been provided to study the effects of increased cognitive load on the lexical, syntactic, and articulatory processes (Tóth, 2011). Speech disfluencies are considered one of the crucial components of studying the production processes as, according to Shattuck-Hufnagel (1979: 295), they provide “a valuable glimpse into the workings of the fluent sentence production mechanism, since the constraints they follow are presumably imposed by characteristics of the process by which normal, error-free speech is produced.”

One of the key researchers on the topic of speech disfluencies is Gósy (2007), who illustrates disfluencies as a “phenomenon that interrupts the flow of speech and do not add propositional content to an utterance” (Gósy, 2007: 93). In order to give better

understanding of speech disfluencies, Gósy (2007) posits a taxonomy of detailed descriptions for the components of disfluencies which can reflect a detailed explanation to the process of production (Bakti, 2009). This taxonomy divides disfluencies of speech into two main categories: (a) disfluencies related to uncertainty and (b) errors or error-type disfluencies (ETDs). The former describes the major types of uncertainty-related speech disfluencies as: hesitations, pauses within the word, repetition, fillers, lengthening, and restarts, while the latter consists of the following: “tip of the tongue” (TOT), Freudian slips, change, syntactic errors, contamination, false word activation, ordering problems, and slips (Bakti, 2009; Tóth, 2011).

In SI, various studies have been focused on speech disfluencies in interpreting (Pöchhacker, 1995; Tissi, 2000; Cecot, 2001; Petite, 2005; Bakti, 2007, 2009; Tóth, 2011). Pöchhacker (1995) investigates the slips and shifts that take place during the speech production phase of TL by simultaneous interpreters. The study hypothesises that during the SI task from English into German and vice versa, interpreters make more slips and shifts than that of the SL speakers. The results of this study find that more slips and shifts exist within the interpreters’ output with the exception of uncorrected slips and high proportion of false starts during the interpreter’s production. His result is considered as a universal to the process of speech production, but it is not related to characteristics of SI (Pöchhacker, 1995: 82).

1.5.3.3 Speech Pauses

Speech pauses can be defined as interruptions in the flow of speech (Mead, 2015: 301). In SI, pauses represent the disfluencies in the interpreter’s performance that cause hesitations and interruptions in producing the TT, which are considered major evidence of the interpreter’s cognitive processes (Tissi, 2000). The duration of these interruptions or breaks in speech should be clearly measured in order to identify the nature of these pauses that occurred within the speech (Wang and Li, 2015). Researchers such as Dechert (1980) were among those who made an early attempt to determine the duration of pauses during speech production. They argue that, in order to be considered a real pause, a break should have a minimum duration time of at least 0.3 seconds.

Mead (2015: 302), on the other hand, believes that research on pauses mostly focuses on one of the two main subjects: (i) quantitative analysis of interpreters' pauses, the duration of interpreters' pauses as compared to those of speakers and to the constraints of the interpreting process (Alexieva, 1988; Pöchhacker, 1995; Tissi, 2000); and, to a lesser extent, (ii) TL receivers' comprehension of the fluency of the interpreter, based on the effect of these pauses (Cecot, 2001; Ahrens, 2005; Wang and Li; 2015). In her study on the interpreter's pause patterns during SI, Alexieva (1988) indicates that the performance of student interpreters is characterised by less duration of pauses and lower frequency than in the source speech. In the same line, Pöchhacker (1995) supports Alexieva's results and asserts that the frequency of pauses is not significant in the TL as compared with that of SL.

Tissi (2000) produces a detailed description of the pauses and interruptions that occur during SI and examines whether these pauses and interruptions affect interpreters' comprehension and delivery processes during SI. This study uses a taxonomy that is based on the categorisation of Caldognetto et al. (1982, cited in Tissi, 2000). In this categorisation, the non-fluencies are broken down into two main categories; silent pauses and disfluencies. On the other hand, disfluencies as part of the problem-oriented category are divided into filled pauses and interruptions. The results show that the occurrences of pauses and interruptions in STs and in TTs are related. TTs include fewer but longer silent pauses than STs, while a slightly higher number of syntactic pauses were found in the TTs.

Although both STs and TTs have a higher number of occurrences in the intervals from 0.25 to 1.25 seconds, TTs reflect a notable number of pauses from 2.5 to 5 and from 5 seconds up, which never happens in STs. Tissi (2000) concludes that vowel and consonant lengthening were found to highly exist in the interpreted texts.

1.6 Cognitive Processing Models of Interpreting

Although many models at the textual and interactional levels have not been proposed or are not originally intended to a particular mode of interpreting, processing models are mainly suggested in SI (Pöchhacker, 2004: 95). Models of the cognitive process relate mainly to the interpreter's mental processes that are involved during the SI process (Setton, 2013: 2). These models are typically based on cognitive psychology in order to model the cognitive

operations such as SL comprehension and TL production, attention/resource allocation, memory, and coordination (Setton, 2015: 256). Processing models are related to how interpreters apply strategies to cope with the problems encountered during SI. Shamy (2020), on the other hand, relates the processing models to interpreter's strategies when she indicates that, when interpreters have strategies to solve the interpreting problems, they can make processing decisions more rapidly. That, in turn, mitigates the pressure on their processing capacity and helps them to have more capacity available for other cognitive tasks such as difficult terminology and cumbersome phraseology (Shamy, 2020: 335).

Although interpreting models were not proposed specifically for research or training purposes, no one can deny the crucial role of these models in both training and research. In other words, teaching models applied to interpreter training mainly stress message analysis and basically focus on the contextual features, extralinguistic knowledge, and imagination and anticipation which support the role of the Paris principle of deverbalisation (Setton, 2015: 268). In the same line, the pedagogical model developed by Colonomos (1992) focuses on the importance of having the required skills to analyse and construct a message based on the context, which includes various aspects such as, participants, speaker's personality, setting, culture, affiliations, ideas and style, with the speaker's goals at the centre (ibid.).

Modelling the interpreting process is not an easy task as it requires understanding how these cognitive processes interact or overlap in a complex task such as interpreting, to transfer the meaning under time pressure from one language into another (Setton, 2013: 2). Hence, various researchers developed models that focus on the interpreter's mental processes such as comprehension, memory (short term, long term), and production. However, each of these models has various characteristics that affect SI, as we will see in the following sections.

1.6.1 Seleskovitch's Triangular Process Model

One of the early models proposed during the 1970s that related to cognitive operations in consecutive and SI is Seleskovitch's (1968) model. Seleskovitch (1962) was one of the earliest to develop a cognitively based model of interpreting that considered the interpreter's comprehension and expression of "sense" as part of a three-part process which considered

the basis of the Paris School though it was not based on experimental evidence (see Russell, 2005).

According to Seleskovitch (1977), interpreting is based on the conversion of sense rather than the words of the SL. She states: “interpretation is not a direct conversion of the linguistic meaning of the SL to the TL, but a conversion from SL to sense, the intermediate link being nonverbal thought, which, once consciously grasped, can then be expressed in any language regardless of the words used in the original language” (see Diriker, 2015: 368-369).

In this model, the main mental process for a successful interpreting and translation is an act of ‘deverbalization’ by which the interpreter grasps the speaker’s intended sense and then re-expresses it in the TL ignoring the linguistic conversion of words and phrases (Setton, 2015: 265). Seleskovitch (1978: 336) characterises the “Sense” as (1) “conscious”, (2) “made up of the linguistic meaning aroused by speech sounds and of a cognitive addition to it”, and (3) “nonverbal,” in that it is dispatched from any linguistic form in cognitive memory (see Pöchhacker, 2016: 89). The main purpose of Seleskovitch’s model is that the interpreter’s cognitive operations basically rely on (deverbalized) utterance meaning rather than linguistic conversion procedures (“transcoding”) (Russell and Takeda, 2015; Setton, 2015), and that is the fundamental part of the Interpretive Theory of Translation led by the Paris School (Pöchhacker, 2016: 89).

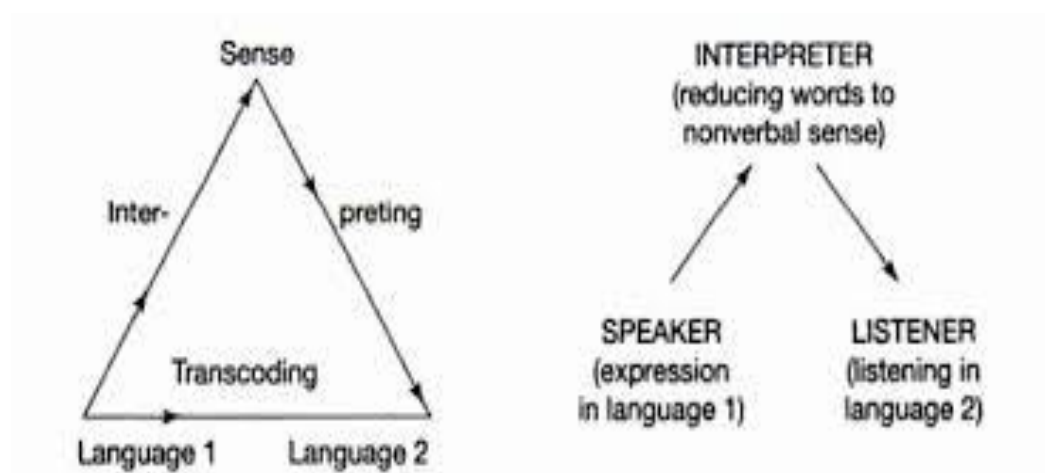


Fig. 2: Triangular model (two versions) from Seleskovitch and Lederer (1984: 168).

Seleskovitch's model is regarded as the most logical and comprehensive approach to interpreting. This model is an essential source of inspiration to all interpreting trainers because it is based on meaning (deverbalisation), which is a key aspect of any interpreting activity (Seleskovitch and Lederer, 1984: 185). Petrescu (2014) argues that the processing of meaning is a challenging task that could be an important part of any interpreting performance. Therefore, interpreters' training should consider this point properly, particularly in techniques and time. Petrescu (2014) concludes that, due to the oral nature of the task, the processing of meaning is a challenging task that could even be impossible to achieve with SI. Furthermore, SI as described by Seleskovitch and Lederer (1984), is an unnatural exercise that hampers the interpreter from separating the SL from TL, which is due to time pressure that does not allow the interpreter to grasp the meaning but to follow the SL literally (Petrescu, 2014: 3266-3270).

Moreover, Seleskovitch's model establishes a principle of studying the interpreting process particularly with the idea of focusing on the sense as a main part of the interpreter's understanding and expressing in SI. However, it seems more holistic and needs more explanation, as meaning is general and it is also a final aim of translation and interpreting tasks.

1.6.2 Gerver's Processing Model of Interpreting

One of the early models that studies the processes of SI from the psychological point of view is Gerver's model (1976). In this model, Gerver (1976) attempted to investigate the time lag, memory usage, and TL production (Pöchhacker, 2016: 92). Therefore, Gerver (1976) decides to draw up a flow-chart model of permanent structural features of memory (short-term buffer store, long-term memory, and output buffer) and the procedures which can be controlled by the interpreter such as dividing the attention into different interpreting tasks, discarding the input, checking the output, monitoring the output, and reprocessing to improve the preceding output (Gerver, 1975; Moser-Mercer, 2002; Pöchhacker, 2016).

This model illustrates the mental operations that take place during the SI process starting from input processes when the SL input is received in a short-term buffer storage that is controlled and monitored by what is called "input routines" relying on the state of the buffer store and on the use of the strategy of segmentation (Gerver, 1975). According to Gerver

(1975), the interpreter can process the linguistic information stored in his/her LTM and make it available in the operational memory or WM via a process of “active instalment” which will be responsible for all mental operations involved in SL perception and TL production.

During the interpreting process, the interpreter has the right, if needed, to monitor the information in the operational memory before producing the output or even after that, he/she still can self-correct or repair based on the interpreter’s matching process between ST with the TT through either surface level (decoding the translation) or deep level (matching the derived meaning with that of the SL) (Gerver, 1975). Figure 3 shows the graphic representation of Gerver’s model (1976) as adapted by Moser-Mercer (2002: 151).

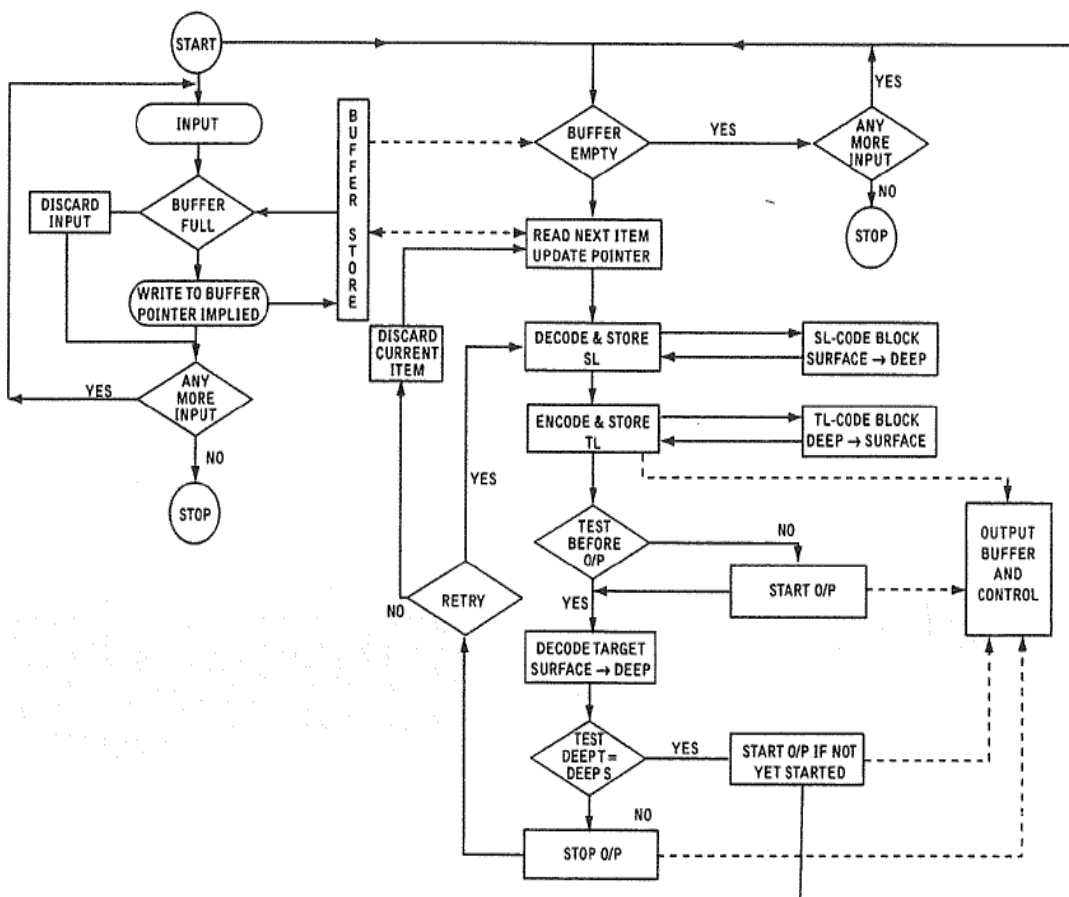


Fig. 3: Model of SI proposed by Gerver (1975) and adapted by Moser-Mercer (2002: 151).

One of the novelties of this model is that it presents a clear insight into the memory processes that are involved in SI, particularly the use of buffers during both input comprehension and

output production. Furthermore, it reflects that self-monitoring and correction are integral parts of SI, as the interpreter can resort to at any part of the process to redirect his/her performance in order to keep the interpreting process as smooth as possible. However, as De Bot (2000: 68) argues, it is impossible to discard the incoming information when the input buffer is full and also discard the way in which the interpreter can select the information to be processed first.

1.6.3 Cognitive Processing Model of Moser-Mercer

Moser-Mercer (1978) proposes her model to describe the cognitive processes and memory structures that are involved in SI. This model is based on the psycholinguistic model developed by Massaro (1975) which focuses on information processing and speech understanding mainly during the input comprehension phase (Figure 4 illustrates Moser-Mercer's 1978 Model). This model devotes attention to the input processing and to the mental operations involved in the output production (Moser-Mercer, 1978, 2002: 151). Pöschhacker (2016: 93) conceives that these input processing units (up to phrases and sentence level) indicate a considerable interaction between SL sequential and the inherent knowledge in long-term memory. In other words, Moser (1978) reflects that bottom-up processes (representing an instant processing of input including levels of phonetics and syntax) and top-down processes (referring to the interaction of all kinds of knowledge in the LTM with the incoming information) take place at any stage of the task.

This interaction is considered a key aspect of Moser's Model to achieve the "conceptual base" and supports the construction of linguistic meaning of the incoming input with the various types of knowledge which trigger TL semantic and syntactic processing to be smoothly produced (Pöschhacker, 2016: 93). The processing in various loops is included in Moser's Model, which refers to the strategy of anticipation. The occurrence of this strategy is not only related to the interaction between the memory systems and input processing, but also to the interpreter's linguistic and extralinguistic knowledge (Moser-Mercer, 1997).

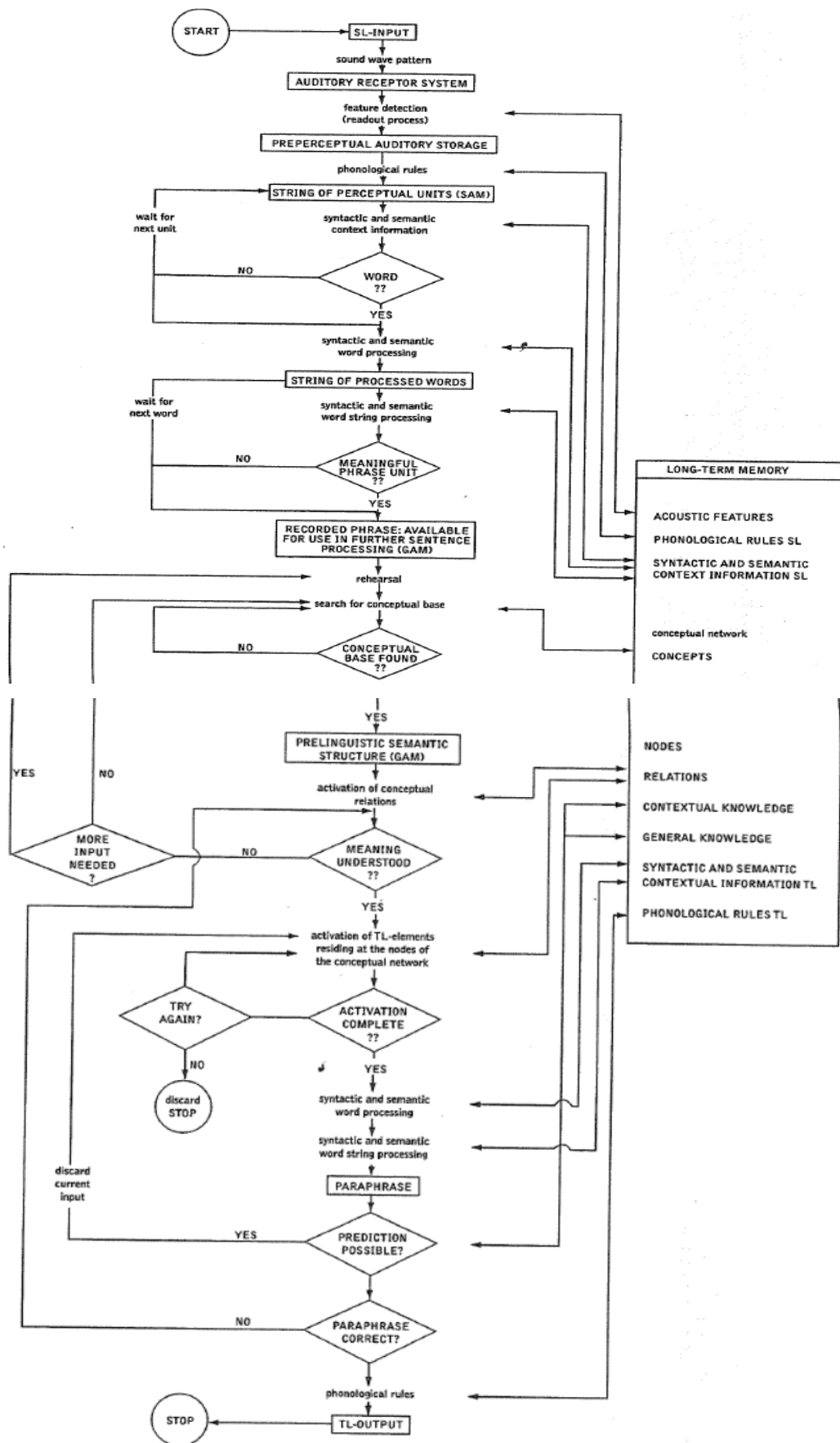


Fig. 4: A processing model of SI developed by Moser-Mercer (1978).

Moser's Model presents a detailed description of the comprehension processes in SI. However, production operations were expressed in terms of "syntactic and semantic word/word-string processing" (De Bot, 2000: 69). It also highlights the notion of the interpreter's prediction strategy, which was considered a starting point for other researchers to include this strategy in their research, such as Chernov (1979, 2004) and Kurz and Färber (2003).

1.6.4 Gile's Efforts Model

The Effort Model developed by Gile (1995) is considered one of the most important models of cognitive pressure in SI. According to Gile (2009: 158), the Effort Model was originally proposed for SI to deal with the difficulties of interpreting as a function of the particular combination of languages applied and, after several developments, it has become a central part in teaching of interpreting and it has been also used as a conceptual framework by many interpreting teachers, trainers, and researchers. In other words, Gile (2009: 189) states that the "Efforts Model is essentially didactic and has been developed in such a way as to be immediately understood by student interpreters".

Various interpreting studies in the literature shed light on the Efforts Model (Pöchhacker, 2004, 2015, 2016; Setton, 2015) and much experimental research has applied this notion (Petite, 2005; Gumul, 2006; Chang and Schallert, 2007). To create a pedagogical tool, the Effort model are basically developed to assist students and practitioners to cope with persistent problems that are not only limited to the interpreter's lack of linguistic or extralinguistic knowledge, but as a reflection of cognitive processes involved in SI (Gumul, 2017; 18).

In other words, the ultimate purpose of this model was not to focus on the interpreting process as a research tool, but to study the mental processes that cause recurring problems for even expert interpreters. In this approach, Gile (1995) highlights the impact of limited availability of processing capacity via a cognitive analysis of these problems in "a way that should facilitate the selection and development of strategies and tactics toward better interpreting performance". Based on his introspection and observation, Gile (1995) notices that the problems regularly encountered by student and even expert interpreters during the SI are due to the limited availability of some kind of "mental energy" required to perform

the cognitive operations underlying interpreting. Therefore, Gile (1995, 2009) relates the development of his model on two intuitive notions:

- the process of interpreting requires some sort of “mental energy” which is only available in limited supply.
- the process of interpreting consumes almost all of this mental energy, and even it requires more than is available, at which times performance deteriorates.

During the SI task, Gile (1995) argues that interpreting requirements often exceeds the available “energy” and, at this point, interpreting is affected negatively, which consequently led to energy management errors such as interpreting errors, omissions, and/or infelicities (EOIs). Gile found useful information on his intuitive idea of a limited energy in literature on cognitive psychology, which related to the distinction between several cognitive processes (non-automatic operations) which require more attention and processing capacity, while others (automatic operations) do not need that. Thus, Gile realised the necessity to add an extra Effort, “Coordination Effort”, to the other three core Efforts to be applied for the management of attentional resources, among other efforts (Timarová et al., 2014;). Furthermore, due to their effortful nature, which requires online actions, Gile (1995) calls these mental operations that are involved in SI “Efforts” and classifies them into a listening and analysis effort, a speech production effort, and a STM effort.

1.6.4.1 Listening and Analysis Effort (L) in Gile’s Model

This effort is defined by Gile (2009: 160) as “consisting of all comprehension-oriented operations, from the subconscious analysis of the sound waves carrying the source-language speech which reach the interpreter’s ears through the identification of words to the final decisions about the ‘meaning’ of the utterance”. In the interpreting process, interpreters have to comprehend the ST before they start interpreting and, in order to do that, a recognition process of the words should be performed at least within the sentence level. Recognition of words requires the analysis of the auditory features of the speakers’ delivering sounds and comparison with the information that was originally in the interpreter’s LTM (Gile, 1995). In other words, recognition of words poses more processing capacity on the interpreter’s mind, which supports the claim that listening and analysis operations are considered part of non-automatic categories.

Furthermore, there is no clear-cut relationship between the acoustics that reaches the interpreter's ears and the single phoneme, word, or phrase that is produced by the speaker (Gile, 2009: 160). Various studies such as Gerver (1976) and Lambert (1992) which compared between recall and recognition under different conditions found that during the SI process, interpreters tend to comprehend the ST rather than focusing solely on recognising words. Gile (2009: 192) identifies the problems that cause an increase in processing capacity requirements, which consequently affects the listening and analysis effort:

- 1- high density of the source speech which includes:
 - high rate of delivery of source speech.
 - high density of information content of the speech such as enumeration.
- 2- external factors such as:
 - deterioration of sound quality of interpreting such as unclear sounds that come into interpreter's earphones, noisy channels, other sound problems.
 - strong accent and incorrect grammar and lexical usage.

1.6.4.2 Production Effort (P) in Gile's Model

According to Gile (2009:192), Production Effort in SI refers to “a set of operations extending from the mental representation of the message to be delivered to speech planning and the performance of the speech plan, including self-monitoring and self-correction when necessary”. In other words, Gile (2018) describes this effort as including all cognitive processes that are based on decisions resulted from understanding the SL and ready to be produced in the TL. As in the comprehension phase, interpreters are vulnerable to encounter problems during the production of TL, which can be clearly noticed in the interpreter's hesitations during the production of TL such as difficulties of recalling the correct lexical item, syntactic decision-making and selecting the equivalent cultural expression (Gile, 2009: 192).

Interpreter's hesitations are considered a main sign of having a problem, particularly those related to the speaker's high speech rate which has a negative effect on the interpreter's TL production (Clark and Clark, 1977). During the production stage, interpreters apply

“problem-solving” strategies as they look for more appropriate expressions that can be used in the specific context or provide the correct syntactic structure (Russell and Takeda, 2015: 99). Speech production problems are encountered in interpreting particularly when speakers tend to use ready-made verbal phrases, sentences, and structures such as clichés, proverbs, common sayings etc., even if they sometimes are not necessarily referred to in the original SL message (Goldman-Eisler, 1972; Clark and Clark, 1977; Costermans, 1980).

Gile (2009: 163), on the other hand, discusses the problems that interpreters may encounter during conference interpreting, which can be summarised into: a) speakers resort to using readymade structures like clichés, proverbs, or common sayings which are considered as the easiest way of expressing their thoughts and intentions. These aspects cause challenges for interpreters because they increase the cognitive pressure on the STM and consequently affect the production process; b) lexical and syntactic choices that are applied by speakers could help the interpreter if there is no difference in lexical and syntactic structures between the SL and the TL, otherwise the production process would be vulnerable as Gile (2009: 164) mentions, “following the SL structure and lexical choices in one’s TL speech is risky because the interpreter may get stuck because of syntactic and grammatical differences between the languages”; c) interpreters resort to transcoding while they produce the TL, which may cause linguistic interference between the two languages and makes the interpreter’s performance seem more hesitant, less idiomatic, and inconsistent; d) interpreters have to interpret in areas they are not familiar with that may include unknown terminologies, unclear structures, etc. which has a negative effect on the production phase. Furthermore, the problems are not limited only to the spoken mode, but they can be clearly identified in sign language interpreting, which requires more processing capacity requirements in the shift from spoken into signed discourse or vice versa (Leeson, 2005, cited in Russell and Takeda, 2015: 99).

1.6.4.3 Memory Effort in Gile’s Model

During SI, the interpreter must keep the comprehended information in his/her STM (for up to a few seconds) to be processed and produced into the TL. The lag between what the interpreter hears and what he/she produces includes storing the SL segments in the memory (receiving the phonetic segments and processing them) until they can be interpreted into TL (Gile, 2009: 165). In SI, the interpreter should wait until he/she receives, understands, and

processes a sense unit (meaningful unit), which can be regarded as a speech chunk. This chunk is considered an interpreting unit if it consists of smaller units and has a specific meaning (Lederer, 1978).

Miller (1956, cited in Timarova, 2008) argues that, at any time, humans are able to remember up to seven, plus or minus two, chunks. However, this storage capacity does not appropriately illustrate a range of empirical data, which leads to propose that the WM combines the storing system with other processing functions (see Atkinson and Shiffrin, 1971; Baddeley and Hitch, 1974).

As the Efforts Model is initially didactic, interpreters and students understand that they have to keep information in their memory for later recovery. While other activities such as storing the information and the recalling processes are subconscious (in terms of the Listening Effort and of the Production Effort), others are consciously and deliberately stored for later processing. Consequently, Memory Effort is concerned with human conscious experience and is related to both the concept and the choice of words (Gile, 2009: 189). However, the restricted storing capacity of WM and the requirements of its processing capacity as significant aspects in language comprehension and production are considered a pivotal aspect of the Memory Effort.

On the contrary, Liu (2008: 173) believes that the memory effort in Gile's Efforts Model is regarded as more than a storing mechanism in which information is stored for a short duration before further processing occurs again, as the core of the Effort Model is the efficient resource management which contributes to the development of expertise in interpreting rather than increasing storage capacity of interpreters' memory.

1.6.4.4 Coordination Effort (C) in Gile's Model

As it is stated by Gile (2009: 167-168), the process of SI includes three efforts: Listening and analysis (L), Short term memory effort (M), and speech Production effort (P), in addition to Coordination effort (C) which is applied to coordinate the dynamics of the three efforts. The following formula illustrates the relationship between the efforts as explained by Gile (2009: 169):

$$SI = L + P + M + C$$

In this equation, Gile (2009) shows that the meaning of the “equal” sign should be rendered into an equality in the usual mathematical sense, and the “plus” sign generally refers to “addition” as a usual arithmetic process. Leeson (2005: 57) describes the Coordination Effort as the air-traffic controller for the SI that assists interpreters to appropriately direct their attention between the listening and analysis task, the production task, and the ongoing self-monitoring that takes place in the interpreting process. If interpreters achieve the coordination task smoothly, they will reach to a state of “flow” where the interpreter can overcome the interpreting challenges easily (Robinson, 1997, cited in Leeson, 2005: 57).

In terms of available processing capacity, Korpala (2016: 28) conceives that it is important for interpreters to keep some additional processing capacity ready to be applied in the coordination of the three other cognitive efforts in addition to the cognitive capacity applied to other processes such as comprehending the SL, storing and processing in the STM, and producing the meaning in the TL. Gile (1995: 169) argues that each of these efforts, at each point of time, requires a specific capacity which depends on the comprehension, STM, or production operations being used on speech segments. Based on how high the variability of requirements is depending on the incoming speech segments, the requirements of each Effort can vary instantly through time, in seconds or fractions of seconds.

It is important to understand how these efforts operate during the process of SI, if the SL speech includes consecutive segments A, B, C, D etc., the production effort will deal with segment A while segment B is processed and waiting in the STM to be produced in the target text, and C segment is being analysed by the Listening and Analysis Effort (Gile, 2009: 168). However, the process is not easy at all due to the syntactic differences that may exist between the ST and the TT, in addition to unclear SL speech that leads to overload the STM with unprocessed units which cause information loss.

The total requirement of the processing capacity is the total outcome of these efforts. However, it differs based on the particular SL segments that are analysed and vibrated according to incoming speech stream (Christoffel, 2004: 22). Moreover, problems can be encountered even when the processing capacity requirements are similar or less than the

total available capacity, and that could be due to difficulties in the SL text (Christoffel, 2004; Gile, 2009). (See problem triggers in Chapter 3).

Gile (2017) proposed three major operational assumptions that underlie the Effort Model:

- All the efforts have non-automatic elements. Hence, all three efforts require attentional resources and, consequently, increase the processing capacity requirements.
- The three Efforts are characterised by competition. In other words, this means even if they have common resources and may seem cooperative, their main objective is to investigate the increase in processing capacity requirements “competition hypothesis”.
- The notion that, most of the time, interpreters work near saturation level (the Tightrope Hypothesis). The total available processing capacity of interpreters is, most of the time, equal to the required capacity for the interpreting process so that any mismanagement of the cognitive resources could lead to overload in one of the processing efforts, which consequently deteriorates the interpreting process. The Tightrope Hypothesis, on the other hand, shows that errors and omissions can be identified in interpreting even when no technical or other problems related to the ST could be identified (Gile, 1995): if interpreters work below saturation level, errors and omissions occur only when the problems of the SL speech are encountered (Gile, 2017).

1.6.4.5 General Points About Gile’s Efforts Model

Gile’s Efforts Model (1995) was proposed in line with Kahneman’s capacity theory of attention (1973), which was originally developed in the field of cognitive psychology. This could show that the interpreter has a limited amount of processing capacity that can be divided into four processing efforts: listening and analysis, STM, production and coordination. The interpreting process, on the other hand, requires a processing capacity that should be available to cope with the cognitive load of the interpreting process. Hence, failure to provide the required capacity leads to errors and omissions, and consequently deteriorates the process of interpreting. Interpreters work close to the state of saturation in

order to keep the flow of interpreting as smooth as possible, which is what Gile calls the “Tightrope Hypothesis”.

There are a number of problem triggers that have a significant effect on the interpreter’s processing capacity, such as proper nouns, numbers, syntactic differences between SL and TL, cultural problems, etc. (they will be described in Chapter 2). As a didactic tool, the Efforts model help students to identify the cognitive processes involved in SI and determine which part requires more training (Korpala, 2016: 29) .

Several points in Gile’s Efforts Model could be highlighted: first, Efforts model focused on interpreting capacity requirements. However, they did not clearly state how interpreters or students increase these requirements, especially the nature of training required and which efforts should be focused on during training, since all efforts competitively operate together during the interpreting process. Second, the Efforts model focused only on the interpreter’s attentional resources that require processing capacity during interpreting, such as proper nouns, numbers, or fast speech. However, other reasons related to the interpreter’s performance such as confusion and stress were not identified. Third, the notion of the Tightrope Hypothesis requires more clarification as it is still not clear how to measure the saturation level of interpreters.

1.6.5 Seeber’s Cognitive Load Model

Seeber (2011) attempts to introduce his Cognitive Load Model (CLM) to explain the mental operations and workload involved in the SI of certain language combinations. It is based on Wickens’s (1984) Multiple Resource Model, in which “the combination of two (or more) tasks requires more processing capacity than either (or any) of the tasks performed individually” (Seeber, 2011: 187). It is in contrast with Kahneman’s (1973) single source theory, which argues that all mental operations compete for one undifferentiated pool of resources, Seeber’s model suggests considerable interference between resource-demanding perceptual tasks and the mental processes including WM to retain or process the information (Liu and Wickens, 1992; cited in Seeber, 2011).

The investigation of cognitive load was the key point of this model, as Seeber (2011) states: “in order to capture the notion of cognitive load in SI, I propose a CLM that takes into

account the amount of load generated by individual concurrent tasks”. According to this model, SI is regarded as a real-time combination of comprehending the SL and producing the TL, which are divided into their demand vectors (i.e. perceptual auditory verbal processing of input and output “P”, cognitive-verbal processing of input and output “C”, and verbal-response processing of output “R”). Interference “I” is also considered (and added as a conflict coefficient) particularly when there is overlap between the tasks. Seeber also adds a storage component “S” which refers to the load that is caused by the storage of information being produced in the TL (Seeber, 2011: 187-188).

Figure 5 shows the conflict matrix of SI in which different modalities are listed.

			listening & comprehension						response		
			perceptual			cognitive		response			
			vector	\emptyset	\emptyset	\emptyset	1	\emptyset			1
production & monitoring	perceptual	demand -	VISUAL SPATIAL	VISUAL VERBAL	AUDITORY SPATIAL	AUDITORY VERBAL	COGNITIVE SPATIAL	COGNITIVE VERBAL	RESPONSE SPATIAL	RESPONSE VERBAL	
		\emptyset	0.8	0.6	0.6	0.4	0.7	0.5	0.4	0.2	
		\emptyset	0.6	0.8	0.4	0.6	0.5	0.7	0.2	0.4	
		\emptyset	0.6	0.4	0.8	0.4	0.7	0.5	0.4	0.2	
	cognitive	1	AUDITORY VERBAL	0.4	0.6	0.4	0.8	0.5	0.7	0.2	0.4
		\emptyset	COGNITIVE SPATIAL	0.7	0.5	0.7	0.5	0.8	0.6	0.6	0.4
		1	COGNITIVE VERBAL	0.5	0.7	0.5	0.7	0.6	0.8	0.4	0.6
		\emptyset	RESPONSE SPATIAL	0.4	0.2	0.4	0.2	0.6	0.4	0.8	0.6
	response	1	RESPONSE VERBAL	0.2	0.4	0.2	0.4	0.4	0.6	0.6	1.0

Total interference score = demand vectors + conflict coefficients
 = (1+1+1+1+1) + (0.7+0.8+0.4+0.6+0.8+0.7)

Fig. 5: Conflict matrix of SI developed by Seeber (2011: 188).

In general, both Gile's (1995) Effort Model and Seeber's (2011) CLM attempt to illustrate the cognitive load that is inherent in SI. However, Efforts Model is based on Kahneman's (1973) single resource theory, which argues that all the cognitive processing activities that are involved in SI depend on one pool of undifferentiated resources. The CLM adopted Wicken's (1984) Multiple Resource Model, which denies the idea of having one pool of

cognitive resources and argues that multiple cognitive resources are available, in addition to producing the notion of conflict of coefficients which refers to dynamics of SI tasks (Korpál, 2016: 33).

In contrast to the Efforts Model, the CLM is regarded as the first attempt to quantify the cognitive load based on Wicken's demand rectors and conflict coefficients. Notwithstanding, both models consider SI as an interaction between the comprehension of the SL and production of the TL, involving a total cognitive load; only the CLM is capable of accounting for the conflict potential resulted from the difficulties they cause (Seeber, 2011). While both models conceive that the syntactic differences between SL and TL increase the processing capacity requirement and pose more cognitive load, the CLM thoroughly explains how the effects of various combinations of subtasks affect the overall cognitive difficulties, which consequently lead to express a strategic behaviour that can be applied to overcome the issue of syntactic asymmetry between SL and TL (i.e., English and German) (Seeber, 2011: 189).

In other words, Seeber's Model produces a comprehensive view with strategies applied such as waiting, stalling, chunking, and anticipation (see Chapter 2 in this dissertation) in order to overcome the problems encountered during SI due to overall cognitive load (Seeber, 2011). As stated by Korpál (2016), Seeber's Model (2011) lacks more experimental support because it was applied only to a specific language pair (English and German) and that may present different results if it is applied to other combinations. Moreover, the model focuses mainly on two tasks: the language comprehension task and language production task. The WM has not been deeply considered in the model.

1.7 Processing and Memory System Models

WM is probably considered one of the important cognitive processes involved in SI that has attracted many researchers and scholars within the interpreting field. Early scholars of the Paris School conceived that excellent memory is undoubtedly the cornerstone of interpreting (Seleskovitch, 1968, 1978). Psychologists such as Gerver (1975), who developed his Model around STM stores and their role in SI. In the following sections a description will be presented of the multiple WM models by Baddeley and Hitch (1974), an early theoretical model that presents a full description of WM, and by Darò and Fabbro

(1994), which focuses on the nature of memory (WM and long-term memory) and its functions in SI.

1.7.1 Working Memory Model of Baddeley

This model is related to early attempts to conceptualise the WM system that date back to the 1970s when Baddeley proposed his model to underly several studies on WM in SI (Pöchhacker, 2016: 110). In this model of the WM system, Baddeley (2000) conceives that WM is a system of multiple parts that is in charge of retaining and processing information while at the same time participating in the essential cognitive processes such as reasoning and comprehension. According to Baddeley (2000), his tripartite model originally includes three components: the phonological loop, the visuo-spatial sketchpad, and the central executive, while the episodic buffer was added later on to his model.

Furthermore, each component is controlled by a limited capacity attentional system which is relatively independent from each other. The model suggests that the attentional system (central executive) is supported by two slave systems: the “articulatory or phonological loop” which deals with managing phonological or speech-based information, and the “visuo-spatial scratch pad or sketch pad” for visual and spatial information (Baddeley, 2000). (Figure 5 shows the graphic of Baddeley’s (2000) model). The central executive is a fundamental part of this model as it incorporates information from the phonological loop, the visuo-spatial sketchpad, the episodic buffer, and also from the long-term memory, but it is still considered an unclear component of WM due to being a place where complex issues are allocated (Baddeley, 2003: 835). The episodic buffer, on the other hand, is seen as a limited capacity store where information is incorporated together for a short time from the phonological loop, visuo-spatial sketchpad, and LTM (ibid.).

This model undoubtedly presents a full description of language processing of WM in the form of episodes, especially the phonological loop, which maintains acoustic or speech-based information (Baddeley, 2000). It is one of the important models that helps interpreters and researchers to clearly understand the components of WM and the processing of information through the memory episodes, and thus it becomes a basis for other models such as Darò and Fabbro’s (1994) Model.

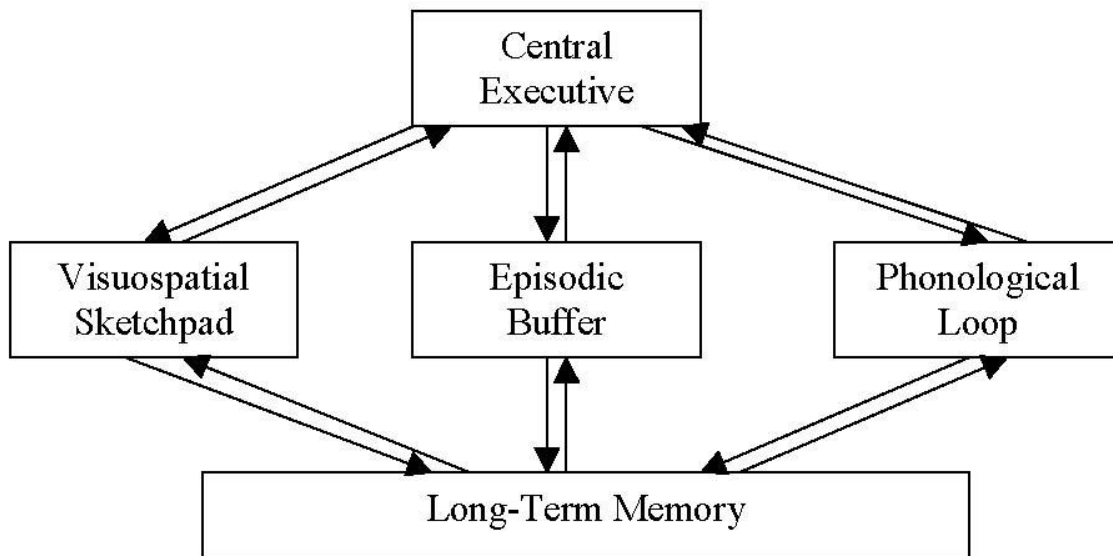


Fig. 6: Baddeley's (2000) Model of WM Structure.

1.7.2 Darò and Fabbro's Model

This model of WM system is based on Baddeley and Hitch's model (1974). However, it applied only the verbal slave system and the central executive component. Based on memory systems in SI, Darò and Fabbro (1994) propose their model that relied on the principles developed by Baddeley (1990) and Tulving (1987). The two authors propose this model which is incompatible with the prevailed knowledge about memory systems that consists of two memory systems: WM and long-term memory, both systems are further divided into subsystems. In this model, the information is analysed in the WM before translating it into the TL and then the memory keeps the verbal chunks for 10 seconds and afterwards, they either fade away or are further processed (Darò and Fabbro, 1994: 376). These chunks can be moved to different translation systems where they can be processed but not translated until they can be incorporated with the feedback from the LTM systems of explicit memory and then produced into the TL (Darò and Fabbro, 1994). Figure 7 illustrates Darò and Fabbro's Model (1994).

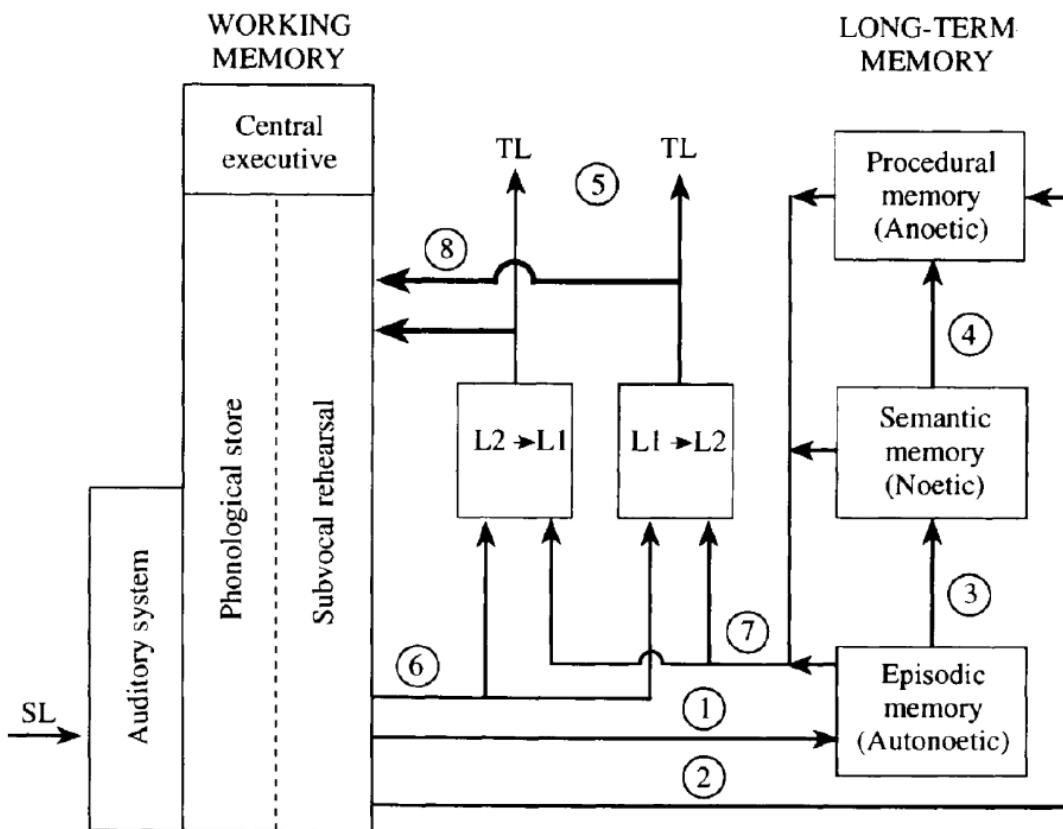


Fig. 7: Model in SI developed by Darò and Fabbro (1994).

Temarova (2008: 16) argues that this central executive component was applied in this model but it did not have any function due to: a) most of the researchers in the field of psychology focused their research on the storage functions, b) during 1970s the central executive component was originally developed in Baddeley and Hitch's (1974) model. However, it becomes the centre of interest in mid-1990s, when Baddeley called for more research into the executive functions of WM (Baddeley, 1996).

1.8 Directionality

The notion of directionality in interpreting, or whether interpreters have to render into one's native language or into his/her foreign language, has been considered as one of the controversial aspects in translation and interpretation studies since the early time of their existence (Gumul, 2017: 312). Working only into one direction is a normal act in the process of interpreting. However, there is no particular title for "one-way" or one-directional interpreting in terms of communication. The International Association of Conference

Interpreters (AIIC), on the other hand, introduced language classification categories in which the interpreter's working languages are classified into A, B or C languages. A is the native or active language, B is an active language of which the interpreter has a good command, and C is a passive language of which the interpreter has a good understanding (Pöchhacker, 2016: 21).

Scholars and interpreters from the Paris School highlight the importance for interpreters to work into their A language, as they argue that the high-quality expression could only occur when interpreters render into their native (A) language. In contrast, those who belong to the Soviet School support the work of interpreters into their foreign (B) language relying on the interpreters' understanding of the SL that helps them to improve the TL production (Gile, 2009; Bartłomiejczyk, 2015; Pöchhacker, 2016). Most of the SI processing models do not take directionality into account except Gile's (1995) model, which investigates the effects that directionality has on the four concurrent efforts: comprehension, memory, production and coordination.

In other words, research asserts that interpreting into a native language or interpreting into a foreign language activates different areas of the brain (Tommola et al., 2000, cited in Chang, 2005: 14) which supports the claim that directionality has an effect on cognitive processes involved in SI processes (ibid.). There is a common understanding among experienced interpreters regarding the potential challenges that directionality reflects on interpreters; in the direction of A to B is the production while, in B to A is comprehension (Chang and Schallert, 2007: 139). However, others found that professional interpreters have not been affected by the interpreting direction such as Barik (1973; 1994) who provided a detailed analysis of translation-direction data of three professional interpreters and three inexperienced participants. In this study, professionals made the same errors and omissions in the two directions. In the next section I will describe the arguments of each direction in SI.

1.8.1 Interpreting from B to A Language

Prominent scholars and researchers support the tendency for interpreters to work from their B language into their A language, such as Seleskovitch (1968) and Seleskovitch and Lederer (1989). They even called interpreters to not think of interpreting to B language at all and

never consider it as part of the curricula of interpreter training courses., Others like (Déjean Le Féal, 2002; Donovan, 2004) were more reluctant to take the need of the market into consideration and at the same time they prioritised the “quality” of interpreting as a crucial aspect of assessment (see Gumul, 2017: 312). Proponents of interpreting from B to A argue that interpreters will be under high cognitive load and continuous stress if they interpret into their B language as more efforts and processing capacity are required to provide the equivalent expression in their B language (Pöchhacker, 2003).

In the same line, Seleskovitch (see Seleskovitch and Lederer, 1989) believes that interference is clearly identified when interpreting into B language although the interpreter has great command of his/her B language. Furthermore, she added that comprehension takes place in B language spontaneously if the interpreter has a wide understanding of the subject matter. She concludes that “only in the A language the speech production will be spontaneous and idiomatic”. As for Bartłomiejczyk (2015: 109): “the Paris School’s position on directionality has become dominant, and the popular expression ‘retour interpreting’ also seems to imply into A interpreting as the default option”.

Based on various linguistic theories, Schweda-Nicholson (1992, cited in Chang, 2005: 15) presents two reasons for interpreters to follow interpreting into their A language. Firstly, interpreters should focus their attention on the syntactic structure when producing their L2 as it causes problems particularly when L1 and L2 have different syntactic systems (Seleskovitch, 1999). Secondly, interpreters should pay attention to the prosodic features of their L2 output, which requires extra processing capacity requirement. This is compatible with Donovan’s (2005) identification of SI challenges, as she argues that the interpreter is less fluent, flexible, and intuitive in the B language and is always under the effect of the interference of L1 while the interpreter’s aim to find the equivalent expression may affect negatively on the analysis process. On the other hand, interpreting into B increases the interpreter’s capacity requirement as he/she needs more cognitive means for monitoring the coherence, prosody, pronunciation, and signs of interference (see Chang and Schallert, 2007: 140).

1.8.2 Interpreting from A to B

Challenging the first view of better interpreting from B language to A language, proponents of the Soviet School claim that working into B language is the optimal approach as the interpreter will depend mainly on the comprehension process which plays an essential role in the output production (Gumul, 2017: 312). As supporters to this view, Chang and Schallert (2007) believe that even expert interpreters sometimes face challenges during listening to their B language, which has a negative effect on the TL production though they work into their A language. The two authors conclude that the lack of linguistic and cultural knowledge of the B language increases the difficulties and leads to errors and omissions and, consequently, affects the process of interpreting, especially when working into the A language (Chang and Schallert, 2007: 139).

In the same line, Denissenko (1989, cited in Chang, 2005: 17) depicts interpreting into a foreign language (B) as the ideal practice because, in this direction, the interpreter will not face any challenges related to understanding and comprehending the ST, which is regarded as an essential cognitive process in interpreting in which, if errors and omissions occurred, they cannot be repaired. Denissenko (1989) adds that the multiple options that the interpreters have when interpreting into their A language may reflect negative results as “with a large variety of options, decision-making and delivery control take more time in the rigid split-second attention distribution cycle” (Denissenko, 1989: 157).

Furthermore, research in second language indicates that advanced L2 learners whose skills are similar to those of native speakers face various challenges related to SL perception such as bad speech quality, different accent, or noisy environment when they interpret into their A language, which leads to problems in TL production and consequently deteriorates interpreting process (Denissenko, 1989). Therefore, various studies come up with the opinion that for student interpreters and untrained fluent bilinguals, interpreting from their A language into their B language shows better results, especially when they fully and accurately understand the source text; errors and losses of important information may be less common than rendering from B to A (Barik, 1975; Tommola and Heleva, 1998).

As was described above, most studies conducted to test interpreters' preference to which direction they tend to work, either to their A language (Donovan, 2004; Nicodemus and

Emmorey, 2013) or into their B language (Al-Salman and Al-Khanji, 2002; Nicodemus and Emmorey, 2013), present contrastive results. This can be attributed to various aspects such as interpreting mode and language combination. In their large survey study, Nicodemus and Emmorey (2013) investigate the preference of interpreting direction for both interpreters of spoken language and signed language. This study found that spoken language interpreters tend to work into their mother tongue language (A), whereas signed language interpreters were clearly in favour of their foreign language (B).

On the other hand, Al-Salman and Al-Khanji (2002) test in their research whether simultaneous interpreters are in favour of interpreting oral discourse from their native language into their foreign language. This study relied on the data gathered by means of questionnaires and real performance of several expert interpreters who conducted SI tasks in both English and Arabic. The data collected were analysed according to criteria based on linguistic adequacy, strategic competence, and communication strategies. The study reports that most of the subjects work more comfortably during the interpretation from Arabic into English than in the opposite direction (Al-Salman and Al-Khanji, 2002). Interpreters' strategies are also affected by the directionality of interpreting, which may be related to several aspects such as the language combination with syntactic and cultural differences (Al-Salman and Al-Khanji, 2002), (Riccardi, 1995), (Dawrant, 1996). In Al-Salman and Al-Khanji's study, expert interpreters used achievement strategies such as anticipation and approximation during interpreting from English into Arabic, while they applied reduction strategies such as "incomplete sentence" with Arabic into English. On the other hand, Dawrant (1996) found that interpreters mainly applied strategies such as waiting, segmentation, and anticipation in SI to solve the problems encountered due to word order differences between Chinese and English.

1.9 Concluding Remarks of Chapter One

1. SI is considered one of the interpreting modes that requires listening and understanding of the SL message, processing it in the memory, and delivering it according to TL norms. This demanding task is characterised by complexity as the interpreter has to activate all his/her mental processes during the task, and the simultaneity when all these processes have to be done in real time as the interpreter has to preserve the same pace as the speaker. Moreover, in SI there exists a lagtime

which is the delay between speaker's message and interpreter's articulation of the TL message. These main features distinguished SI from other interpreting modes such as CI, sight interpreting, and LI.

2. The focus of interest to do research in SI has shifted from studying the final outcome of TL (studying interpreting as a product) to interpreting process research. This shift is mainly based on investigating the cognitive processes that were activated in interpreter's mind during the SI process. In product approach, the focus has been directed towards studying the TL outcome such as the quality of TL message. On the other hand, in process-oriented research, the behaviour of interpreters is examined through experiments, in addition to the use of new retrospective methods to collect more concrete data.
3. Researchers in interpreting studies have mainly classified the cognitive processes applied in SI into comprehension of the SL message, processing that message in memory, and producing it according to TL norms. Any defect in one of these process leads to distort the process of interpreting and affects negatively on the interpreter's performance. Hence, most of the research in SI have been dedicated to investigate these processes and learn more about the means of developing them particularly through comparing the performance of expert interpreters with novices during the SI task.
4. Several models have been proposed to study how the cognitive processes are used in SI task, to find solutions if interpreting problems occurred in one of these processes, and to train the interpreters how to manage the cognitive load that is resulted from the demanding task of SI. In this context, Seleskovitch developed a model in the 1970s which focuses on the comprehension of the SL message and conveying the sense of that message in the TL rather than converting the SL linguistic representations into the TL. Other models concerned with the work and structure of the memory system during the SI task such as Gerver and Moser-Mercer. One of the main processing models in SI is the Efforts Model which was proposed by Gile (1995). In this model Gile classified the cognitive processes into four efforts that the interpreter should master in order to keep the interpreting flow. These efforts are listening and analysis effort, a speech production effort, a STM effort, and coordination effort. Any failure in one of these efforts may increase the cognitive

pressure and consequently causes problems for the interpreter. Similarly, Seeber (2011) proposed the CLM to investigate the cognitive pressure that affects interpreter's performance during SI. Moreover, other models were proposed to conceptualise the memory system that is used in the process of SI such as Baddeley and Darò and Fabbro's Models of WM.

5. The effect of directionality on the interpreting task is a controversial issue as some of the scholars prefer to work from interpreter's foreign language into their native language as they consider producing the meaning of the SL message in the TL is the main objective of interpreting process such as the view of Paris School. On the other hand, another view supports working from interpreter's native language into his/her foreign language as comprehending SL message properly facilitates producing that message in the TL. However, language combination plays an important role particularly when rendering between two different language systems. Moreover, interpreter's knowledge and skills which were obtained by experience and training have a positive effect on reducing the impact of rendering from or into one's native language.

CHAPTER TWO

THE NOTIONS OF “PROBLEM” AND “STRATEGY” IN TRANSLATION AND INTERPRETING RESEARCH

2.1 Problem

In this part, a detailed description will be provided on the notion of problem, the identification of problem, and different classifications of problems in translation and interpreting.

2.1.1 The Notion of Problem in Different Disciplines

In common language, a problem is “a situation preventing something from being achieved. The word comes from a Greek word meaning an ‘obstacle’ (something that is in your way). Someone who has a problem must find a way of solving it. The means of solving a problem is called a ‘solution’”¹.

One of the main approaches to problem solving in mathematics is related to the mathematician Polya (1965), who argues that “the resolution of problems is based on cognitive processes that result in finding an exit at a difficulty, a route around an obstacle, so as to reach a goal that was not immediately achievable” (Polya, 1965: 23, my translation). De Vega considers problem solving as “the tasks which require processes of relatively complex reasoning, and not a simple associative activity and routine” (De Vega, 1984: 125, my translation). According to research into problem solving applied to education, Pozo et al. (1994) centre their research on the distinction between problem and exercise. They believe that a problem differs from an exercise as with the latter we can use mechanisms that lead us directly to the solution, whereas a problem is a new situation that differs from what has been learned, and consequently requires the strategic use of techniques.

On the other hand, from the psychological point of view the process of problem-solving requires an attempt to relate an aspect of a difficult situation with another, which leads to

¹ See <https://dictionary.cambridge.org/dictionary/english/problem>

structural understanding, that is, the ability to grasp how all parts of a problem fit together to meet the requirements of achieving the goal. In order to solve the problem, a reorganisation of the elements in the problematic situation is required, which includes a complex process starting from the identification of the problem to solving and evaluating it (Ginger, 1987, 2003, cited in Gil-Bardají, 2010).

In translation, however, as in other specialised fields, a problem occurs when “automatized” solutions are not available for source text items (Bell, 1998; Kiraly, 1995). The term “problem” has been considered as an essential aspect in studying translation strategies (Kring, 1986: 268). However, in interpreting the task could be more challenging, as interpreters work simultaneously with no possibility to use dictionaries or other references that help them to overcome these challenges.

Many scholars and research groups were interested in classifying and designing taxonomies of translation and interpreting problems, such as Nord (1997), the PACTE group (2009, 2011), and Gile’s (2009) problems triggers, which were mainly aimed at identifying the problems encountered by translators/interpreters. Due to its comprehensive and open nature, in addition to its use for educational purposes, Gile’s (2009) taxonomy of PTs will be applied in this study as a basis of suggested categories that refer to potential problems during the SI task. Therefore, lexical problems (proper nouns, numbers), syntactic problems (passive voice, collocations), and cultural problems (culture specific expressions, structures with religious content) will be thoroughly discussed with examples from English-Arabic-English renderings. These problems represent real challenges for simultaneous interpreters in this language pair as both languages belong to different roots and are syntactically asymmetric.

2.1.2 Translation Problems

Although this study focuses on interpreting, it is important to shed light on what has been achieved in the translation field as there has been much research conducted in relation to translation problems. Despite of the absence of a precise definition for the translation problem, the notion of a problem is increasingly considered an important subject in

translation studies because it is deemed as a trigger that affects the mental operations that are used in the translation process, as well as the strategies applied by translators to solve the problem (Gil-Bardají, 2010: 276). In general, the term “translation problem” can be understood as anything that is not smoothly translated into the TL and results in misinterpretation or errors in expressing the SL segment in the TL. However, the expression of translation problem received different headings in the literature, such as “challenge” and “pitfalls” (Clark, 2000: 20). Others differentiate between “difficulties” and “problems” (Pontiero, 1992; Mauriello, 1992, Nord, 1997). Newmark (1988), on the other hand, used both “difficulties” and “problems” without differentiation.

According to Newmark (1988: 30-31), a translation problem can be defined as an “instance when literal translation becomes inadequate”. In this case, a translator/interpreter must exert efforts to use his/her linguistic and extralinguistic skills to produce an appropriate TL rendering. However, Wilss (1996: 47) believes it is difficult to find a uniform concept in the scope of translation studies that can describe the components of a translation problem, which leads Lörcher (1991: 12, cited in PACTE, 2011) to conceive that the research on problems of translation is to a great extent speculative and requires more empirical evidence. Since the 1980s, research on translation problems have started to focus not only on the linguistic aspect but also on the cognitive processes involved in translation (Nord, 1997; Krings, 1986; Gil-Bardají, 2010; Hurtado, 2011; PACTE, 2009, 2011).

Bell (1998, cited in PACTE, 2011) considers translation problems as part of the text transference process from the SL reception into the TL production; they are related to non-automatic processes: “A translation problem is some part of the process of transfer, whether deriving from the reception of the ST or the production of the TT, which makes analysis or synthesis non-automatic” (Bell, 1998: 188). In his model of cognitive processes in translation, Kiraly (1995: 99-105, cited in PACTE, 2011) perceives that controlled and uncontrolled processes are mixed in the mind of translators. However, translators have both a relatively uncontrolled processing centre, which is intuitive and unconscious, and a relatively controlled processing centre, which is strategic and more conscious.

Kiraly (1995: 104) believes that translation problems are related to non-automatic processes because they intuitively exist in the workspace as the production of tentative translation

elements were stopped by the automatic processing. According to this researcher, this problem can be identified at the controlled processing centre and is waiting for the translator to select an appropriate strategy to solve it (Kiraly, 1995: 105). Translating/interpreting problems are not considered universal, as the same text could be translated differently in the same translation conditions (Mankauskienė, 2018: 14). Gil-Bardají (2010: 285) investigates the notion of translation problem within the pioneering studies of translation process. According to this researcher, translation problems were discussed within several disciplines including cognitive psychology and pedagogy. Furthermore, the problem also determines the strategic direction of translators in the problem-solving process, which is a central aspect of the didactics of translation.

In other words, some translators can translate the same text better than others under the same circumstances and that is due to linguistic and extralinguistic aspects of the translator's competence. In this regard, Nord (1997) differentiates between "translation difficulties" and "translation problems". The former is described as learner-dependent while the latter is described as learner-independent. In other words, the difficulties of translation are related to the translator's linguistic and extralinguistic competence. In this sense, the translator could not find the lexical, grammatical, or syntactic equivalence in the SL. Translation problems, on the other hand, represent gaps in both languages which are considered objective problems that every translator must work on to solve regardless of his/her level of competence (Nord, 1997: 151). Therefore, the translator's duty is to direct his/her attention to solve the translation problems through his/her available cognitive instruments and, conversely, he/she must identify the translation difficulties and look for the appropriate strategies to overcome them.

2.1.3 Problem Identification

Different researchers and scholars agree that all translations are problem-solving activities (Wilss, 1996; Kaiser-Cooke, 1994). However, this problem-solving activity requires several steps to achieve its objective. Identifying the problem is considered the first procedure to successful evaluation and analysis in finding solutions (Wilss, 1996; Deeb, 2005). In the same line, Pym (2010: 166) states:

when theorizing, when developing your own translation theory, first identify a problem—a situation of doubt requiring action, or a question in need of an answer. Then go in search of ideas that can help you work on that problem. There is no need to start in any one paradigm, and certainly no need to belong to one.

Interest in problem identification started to increase through conducting research and publishing articles, such as O'Brien (2006, cited in Nitzke, 2019), who studied problem identification in post editing, which is part of machine translation.

In this study, the ST has been scrutinised by two systems of language checkers that can identify the segments which do not adhere to the rules of the ST features such as ungrammatical constructions, spelling errors, or syntactically incorrect structures and other speech parts which are obviously hard to process, such as abbreviations, gerunds, and slang. This study is considered among the few empirical studies that does not rely on the translator's behaviour in identifying the problem of translation, but it first highlights potential problems and then examines the effects of these problems on the post editing effort (Nitzke, 2019: 72). On the other hand, Königs (1996) classifies the translation units into two types: (a) spontaneously translated units (translator does not encounter any problem with translating SL segments into TL) and (b) units resulting translation problems which are attributed to (i) gaps in the foreign language competence of the translator, (ii) problems in the processing competence of the translator, (iii) specific language problems during the translation at the word, sentence, or text level, (iv) specific content problems, or (v) performance problems.

Kaiser-Cooke (1994) published an article that incorporates problem solving with expertise and knowledge for novices and experts. She states that novices and experts deal with problems in translation differently, which is related to the differences in background comprehension, the processing knowledge, and other ways of identifying the problems. Furthermore, she argues that experts acquire expertise through experience, which makes the process routinised and decreases the cognitive load. Thus, translation is regarded as an expert task that highlights their ability to solve the problems as compared with novices' inability to do the same. She adds "not only all translations are problem solving activities

but all are difficult, although some are, of course, more difficult than others”, which refers to novices’ difficulties to handle the problems in translation.

She argues that novices are unable to produce adequate renderings because of the lack of adequate inference and abstraction capabilities, underdeveloped holistic processing and insufficient problem representation. In Kaiser-Cooke’s (1994) context, problem-recognition is a crucial feature of expertise; as she states “we are all familiar with novices or laypersons who describe texts as "easy to translate" because they are not aware of the difficulties (i.e., the nature of the problem) involved” (1994: 137). Hence, from the perspective of an expert activity, translation is primarily a problem-solving activity, which involves problem recognition as well as decision-making, since recognition of the problem necessarily precedes decisions as to the various strategies which can be taken to solve it (Ibid).

In the same line, Krings (1986) proposes a model that is based on the analysis of think-aloud protocols in problem identification (see Chapter 3 in this dissertation).

2.1.4 Taxonomies of Translation Problems

Several scholars and researchers were interested in categorising the problems in translation and interpreting based on theoretical and empirical studies conducted in the field. According to Nida (1976), translation problems can be studied under two titles: problems of content (highlighting the content of the ST), and problems of structures (highlighting the form of the ST). Krings (1986) on the other hand, classifies translation problems into a) comprehension problems; problems related to understanding and comprehending the source language with which the translator fails to find an appropriate equivalent, b) reproduction problems; problems related to processing into the target language, and c) comprehension-reproduction problems; problems related to both aspects.

Similarly, Lam (1995: 912-913) divides the translation problems into comprehension problems (source language-oriented problems) and production problems (target language-

oriented problems). Mauriello (1992: 64) suggests a “typology criteria” to measure the difficulty of the text. Accordingly, the problems can be classified into:

1. Lexicon, semantics, idioms
2. Syntax, structure
3. Terminology
4. Concepts, logic
5. Style, register, tone
6. Language for special purposes (phraseology)

Furthermore, Wilss (1995: 858) introduces problems from two perspectives: macro-context problem-solving operations in which the translator has to understand the content of text, i.e., the communicative function and the intended audience, and micro-context operations in which the translator has to handle the linguistic elements like word, phrase, clause, etc. appropriately. The PACTE group (2011) conducted an experiment on two groups of experts and teachers of foreign languages. One of the variables of this study aimed to identify and find solutions for translation problems that were inserted as Rich Points within the texts.

The participants undoubtedly identified the Rich Points as problems in translation which can be divided into linguistic, textual, extralinguistic, intentionality, and translation brief or TL problems. The results of this study show that linguistic problems were the main problems encountered in this study, as 70% of the participants reported having linguistic problems. Furthermore, the results reflect that the identification of problems varies greatly between both translators and teachers based on the individual. It is in line with the distinction made by Nord (1997) between the subjective difficulties and the objective difficulties in translation, particularly when encountering prototypical problems (PACTE, 2011: 36).

With regard to translation from English into Arabic, Gazala (1995) presents a general classification of translation problems in which he divides them into: grammatical, lexical, and stylistic. Moreover, he provides several solutions to overcome these problems. On the

other hand, Ali Deeb (2005) offers a list of translation problems particularly for the translation from English into Arabic based on Duff's classification. In this list, she classifies translation problems into two levels: problems that belong to language characteristics such as vocabulary and grammar, and problems belonging to textual characteristics such as rhetorical and stylistic devices, cohesion, and culture.

Obviously, taxonomies of translation problems with the English-Arabic language pair should include linguistic and extralinguistic aspects as both languages are completely dissimilar in almost all of these aspects. In other words, focusing on one aspect such as the lexical, syntactic, or pragmatic will express only one side of the topic, which reflects a defect in managing the whole process.

2.1.4.1 Nord's Classification of Translation Problems

Nord (1997) differentiates between "translation problems" (objective problems) and "translation difficulties" (subjective difficulties). She states that "translation problems will always remain problems, even when a translator has learned how to deal with these problems rapidly and effectively" (Nord, 1997: 64). By comparing the ST with the TT, the translator can determine which SL linguistic elements can be kept or adjusted according to the translation requirements (Nord, 1997). In the functional hierarchy of translation problems, Nord (1997: 67) rejects the bottom-up approach of translation as it has several drawbacks on the translation process, particularly in translation teaching. In this approach, translation is considered as a code-switching process in which lexical and syntactic equivalences play a crucial part. Hence, Nord (1997: 67) supports a top-down approach as the process of functional translation has to start at the pragmatic level through the study of the intended purpose of the translation to the linguistic text-surface structure. Therefore, and for pedagogical purposes, this author divides translation problems accordingly into pragmatic, cultural, linguistic, or text specific.

2.1.4.1.1 Pragmatic Problems in Translation

Nord (2018:61) argues that pragmatic problems result from the differences in translation processes that take place between the ST and the TT which can be identified through the examination of the extralinguistic aspects such as the sender, medium, receiver, time, motive, place, and text function. These types of problems are considered the most important problems which should be investigated perfectly during the translator's training courses as they can be studied regardless of language combination, culture differences, or the direction of translation (Nord, 1997). From the pragmatic perspective, the translator should understand the intended meaning of the ST first, then he/she must provide the TT with same meaning and effects of original text (Ballim and Wilks, 1991). Different areas that are involved in pragmatic studies can be identified as potential areas for causing pragmatic problems in translation such as the cooperative principle, speech acts and events, presupposition and entailment, implicature, and deixis (Levinson, 1983; Leech, 1983; Hatim and Mason, 1997; Farghal and Shakir, 1994).

In the speech act illocutions may be processed differently in both the SL and TL (English and Arabic in our case), which causes problems for translators. In Arabic, the imperative form is applied for offers, while English uses the declarative form (statement) as it has a modal verb (Farghal, 2012; Farghal and Borini, 1996, 1997; Aziz, 1999). See the following example from Farghal (2012: 133):

No	Source Text	Target Text	Explanation
1.	ابق معنا هذه الليلة يا علي	You can stay with us, Ali	Arabic is more direct than English which uses modal

The translator should be aware of translating this pragmatic mismatching which causes problems in the translation process. Consider another example that explains the pragmatic difference between English and Arabic and creates problems for translators, cited in Triki (2013: 43):

No	Source Text	Target Text
2.	فترة انتظار ثملة بالدفء تحت الغطاء الثقيل	a moment of expectation full of warmth beneath the heavy cover

The translator has to take into account two things during the translation of example 2: first, according to the context the word *ثمل* (*thamil*) has more than one meaning in Arabic. Its denotative meaning is “drunk”, while it may connote other meanings such as “intoxicated”, “screwed”, “full”, or “boozy”. In this regard, the best expression that suits the ST context is “full”. The second point is the word *انتظار* (*intithar*), “waiting”, which is the denotative meaning of *انتظار* while, according to the context, the word “expectation” is the connotative meaning of the SL expression *انتظار* (Triki, 2013: 43). Below we see another example from English into Arabic:

No	Source Text	Target Text
3.	a- Can I borrow your Shakespeare ? b- Yeah, it’s over there on the table.	ا- هل ممكن ان استعير شكسبيرك ب- بالتأكيد انه على الطاولة

In order to translate this example, the translator should have a pragmatic competence that helps him/her to produce the appropriate rendering. In other words, the translator has to understand the intention of the speaker when he/she refers to the noun “Shakespeare” in “Can I borrow your Shakespeare?”, which is the book, not the person (Yule, 1996: 20). With reference to politeness, translators sometimes apply euphemistic words in Arabic rather than unsuitable English words such as obscene words (four-letter words) and swearwords in order to cope with Arabic politeness norms, as Arabs feel sensitive in dealing with these words. See the following example from Shakespeare with its Arabic counterpart as reflected in the works of Aziz (1999: 72) and Farghal (2012: 140):

No	Source Text	Target Text	Back Translation
4.	Petruchio: Come Kate, we'll to bed . (The Taming of the Shrew, 1953: 184)	بنرشيو: هلم يا كيت لنبدأ حياتنا الزوجية	Petruchio: Come on Kate, let’s start our marital life

2.1.4.1.2 Cultural Problems in Translation

Newmark (1988: 94) believes that culture is a “way of life and its manifestations peculiar to one speech community”. Differences in conventions and norms which direct the linguistic and non-linguistic behaviour in SL and TL cultures lead to cultural problems in translation (Nord, 1997: 66). Thus, Nida (2000) considers cultural differences in translation as more problematic than differences in language structure. Furthermore, Nida (2000) describes the relationship between language and culture within three categories: the first category is when there is no far distance between the SL and the TL linguistically and culturally, as in English and French, or Arabic and Hebrew. In this category, the occurrence of problems is less frequent as the translator will not encounter many linguistic and cultural difficulties in translation.

The second category is when the ST and the TT share the same culture but they linguistically differ, as in the translation from German to Hungarian. This category is considered more problematic than the first category. However, the third category is the most problematic as compared to the two other categories, as there is a distance in linguistic and cultural differences between the ST and the TT. Hence, the translator must exert more effort to produce TL linguistic and cultural equivalences for SL segments, as in the translation between English and Arabic. Thus, the translator must have good knowledge in both cultures in order to provide TT culture specific segments (Nida, 2000; Mares, 2012; Abdelaal, 2020: 122). In order to highlight the cultural problems in the translation between English and Arabic, examples will be provided according to Nida’s (1964: 92) classification of culture: ecology, linguistic, ideological, social, technical aspects.

In English-Arabic translation, the translator encounters various problems related to ecological differences between the two cultures. Mahmud (1981: 207-216) states that Arabic has more than forty-eight Arabic words referring to various kinds of winds, forty-nine for clouds, and seventy-three for rain. This is attributed to Arabs’ life, which basically depends upon these ecological conditions. Arabic is greatly influenced by the hot dry weather of the Arab land, while English is influenced by the cold wet climate of the British Isles. This difference is clearly reflected on the vocabulary used in both languages regarding

climate conditions. Arabic has three items to describe the weather hot (حار), warm (دافئ), and cold (بارد).

English, on the other hand, has a fourth item in addition to the three mentioned, which is “cool”. This, however, does not have an Arabic equivalent, which causes a problem for the translator in translating from English into Arabic (Aziz, 1982: 26). Another example is from a sonnet by Shakespeare: “shall I compare thee to a summer’s day?” According to Newmark (1982: 50), this sonnet should be translated literally to express the beauty of the moderate summer in England. Therefore, it was translated into أيام الصيف اشبهك (Muhammad, 1986: 39). Meanwhile, Aziz et al. (1981) provide another Arabic translation which copes with TL cultural norms: "هل اشبهك بيوم ربيع جميل", in which spring refers to nice moderate weather while summer in Arabic reflects the dry hot environment.

Differences in ideological culture may cause problems for translators during the translation between English and Arabic, which include political, religious, and mythological aspects. Each of these aspects has its own jargon that can be applied only within its culture. Therefore, literal translation is not possible because it reflects a different meaning. See the following examples (Qassem, 2014: 248):

No.	Source Text	Target Text	Back Translation
5.	Chancellor	وزير مالية	Minister of finance
6.	Shadow minister	وزير بالحزب المعارض	Minister in the opponent party

Differences in the social culture can pose problems in translation between English and Arabic, including the kinship system, social institutions, and rules. For example, the English item “cousin” is sex-neutral and used to refer to the son of one’s uncle or aunt, while in Arabic it refers to seven items (Ilyas, 1981: 258):

No.	Source Text	Target Text	Back Translation
7.	Cousin	1- ابن العم 2- ابن العممة 3- بنت العم 4- بنت العممة 5- ابن الخال 6- ابن الخالة 7- بنت الخالة	1- son of one's uncle 2- son of one's aunt 3- daughter of one's uncle 4- daughter of one's aunt 5- son of maternal uncle 6- son of maternal aunt 7- daughter of maternal aunt

Linguistic problems that are related to a specific culture pose difficulties to translators during English into Arabic translation and vice versa. One of these problems is the problem of translating idioms which, if translated literally into the target language, will lead to either untranslatability or cultural shock as they are basically related to different cultures (Nida, 1964: 219). Consider the following examples from Muhammad (1986: 46):

No.	Source text	Target text	Back translation	Meaning
8.	Armed to the teeth	مدجج بالاسلح	مسلح الى الاسنان	To describe someone heavily armed
9.	His race is nearly run	بلغ أرذل العمر	يوشك عرقه على النفاذ	To describe an old man

Another problem in the translation between English and Arabic is the translation of technical and scientific terminology, especially from English into Arabic, which is due to the fast development of technical science around the world and the emergence of thousands of new technical words that come into use. English-Arabic translators apply various strategies to overcome the gap as they apply coinage, derivation, borrowing, and Arabisation (Ashqar, 2013: 4). See the following examples quoted from Muhammad (1986: 113-116):

No.	Source Text	Target Text	Type of Strategy
10.	announcer	مذيع	derived from the root ذاع, which means to broadcast

Other scientific and technical terms were transferred into Arabic because they did not have equivalents in Arabic at an early stage and they were kept in use until now in spite of the availability of equivalent Arabic words. See the following examples from Muhammad (1986: 113-116):

No.	Source Text	Coined Arabic Term	Borrowed Term
11.	microphone	مصوات	مايكروفون
12.	thermometer	محرار	ثرموميتر
13.	microwave	موجة دقيقة	مايكروويف

As for the big difference between English and Arabic cultures, translating the cultural aspect between these languages is considered one of the most problematic areas in translation, as the translator should be fully aware of the cultural differences both the SL and TL. The literal translation of cultural aspects leads to cultural shock and deterioration of the translation process.

2.1.4.1.3 Linguistic Problems in Translation

Language problems in translation occur due to the differences of form in the vocabulary, grammatical, semantic, and stylistic characteristics of both the SL and the TT (Nord, 1997: 62). The analysis of linguistic characteristics of both the ST and the TT will identify the similarities and differences between both languages in various aspects such as the type of words applied, the use of parts of speech, times and verbal modes, and expressions related to theory and practice of the translation task (Stiegelbauer, 2016: 53).

Regarding the lexical differences between the ST and the TT, Al-Najjar (1984) and Saraireh (1990) suggest three categories of lexical items that can be applied in English-Arabic translation. The first category is SL lexical items that have a TL equivalent that do not pose problems for translators; the second category is lexical items that have a partial TL equivalent that have some differences between SL lexical items and their meaning in TL. This category sometimes becomes problematic for translators if they do not manage the differences appropriately. The third category includes lexical items that do not have

equivalents in the TL, for which translators should apply strategies in order to overcome the problem. In this study, the researcher concentrates on the third category of the unavailability of equivalence, particularly at the level of word, as it poses difficulties for translators who should resort to strategies to provide an adequate rendering in translating between English and Arabic. See the following examples quoted from Abdelaal (2020: 96).

No	Source Text	Target Text	Explanation
14.	يحج	1. Do/perform/act pilgrimage; 2. Do/perform/act <i>haj</i> ; 3. Do/perform/act <i>haj</i> (pilgrimage).	No English equivalent for Arabic word. Therefore, the translator has to select the best strategy that conveys the SL meaning.
15.	جهاد	1. Jihad; 2. Striving; 3. Striving (holy war).	No English equivalence for Arabic word. Therefore, the translator can provide these translations or resort to transliterating the SL word accompanied by a paraphrase.
16.	standard	مقياس او معيار	Although there is no Arabic equivalence for “standard”, it is considered مقياس او معيار if the SL word is conveyed appropriately (Baker, 1992).

Syntactic problems occur in the translation between English into Arabic because of the big syntactic differences between both languages. Below, we see several examples quoted from Ghazala (2008) which refer to only a few aspects of grammatical differences between English and Arabic.

No	Source Text	Literal Translation	Target Text	Explanation
17.	I am a PhD student	انا اكون طالب دكتوراه	انا طالب دكتوراه	English verb “to be” must be omitted in Arabic .
18.	Will you open the window?	سوف تفتح النافذة؟	هل لك ان تفتح النافذة "من فضلك"	“Will” is used in the sense of question to refer to polite question.

19.	No smoking	لا تدخين	ممنوع التدخين	“No” does not always mean لا in Arabic. In the context it means ممنوع “prohibited”.
20.	The sky was cloudy	السماء كانت مليدة بالغيوم	تلبدت السماء بالغيوم	The normal Arabic word order is VSO unless there is emphasis on the subject.

Stylistic differences include TL connotative expressions, figures of speech, or figurative meaning that were applied in the source text in order to reflect a particular meaning for the SL words (Stiegelbauer, 2016: 53). Stylistic features of language have, to a great extent, a close relationship with meaning; therefore, any mistranslation of these stylistic features may affect the meaning negatively and distort the translation (Ghazal, 2008: 222). Furthermore, translators must be fully aware of the stylistic characteristics of both the SL and TL and they should know how to use the necessary strategies when they encounter stylistic problems during translation. The following example illustrates the relatedness of style with meaning as explained by Ghazal (2008: 223).

No	Source Text	Target Text
21.	a. Her mom died yesterday.	ماتت والدتها أمس
	b. Her mom was killed yesterday.	
	c. Her mom licked the dust yesterday.	
	d. Her mom kicked the bucket yesterday.	
	e. Her mom passed away yesterday.	
	f. Her mom was martyred yesterday.	
	g. Her mom slept her last sleep yesterday.	
	h. Her mom was hanged yesterday.	

Obviously, all English sentences are translated into one Arabic sentence as the meaning clearly reflects that “her mom has died”. However, if these English sentences are analysed into their stylistic and semantic aspects, they will reflect that the word “death” has other

meanings in the TL. Hence, syntactically and semantically these sentences could be translated into the following, which present more detailed translations than the previous sentence (Ghazal, 2008).

No	Source Text	Target Text
22.	a. Her mom died yesterday.	مات والدتها أمس
	b. Her mom was killed yesterday.	قتل والدتها أمس
	c. Her mom licked the dust yesterday.	خر والدتها صريحا أمس
	d. Her mom kicked the bucket yesterday.	ودع/توسد والدتها أمس
	e. Her mom passed away yesterday.	رحل والدتها أمس
	f. Her mom was martyred yesterday.	استشهد والدتها أمس
	g. Her mom slept her last sleep yesterday.	نام والدتها اخر نومة أمس
	h. Her mom was hanged yesterday.	أعدم والدتها أمس

2.1.4.1.4 Problems of Textual Specificity in Translation

Halliday et al. (1965) defines translation as “the replacement of textual material in one language, i.e. the SL, by equivalent textual material in another language, i.e. TL”. They consider the process of translation as not a mere word-for-word rendering but as a process of transplanting the whole text (see Abdelaal, 2020: 1). Translators encounter translation problems due to ST specific features such as certain figures of speech, neologisms, or puns. It is also impossible to generalise these text-specific instances to other cases. Therefore, translators have to be fully aware of how to deal with these problems in order to produce an appropriate translation (Nord, 2018: 62). The PACTE group (2011: 17) on the other hand, listed textual problems that are encountered in translation: text type, style, cohesion, coherence, and genre. In addition to this, there are problems related to comprehending or re-expressing aspects, and those are related to the functional particularities of each language.

With regard to English into Arabic translation and vice versa, and due to limited space, the examples will be restricted to metaphor, repetition, and wordplay. Obviously, the translation of metaphor is a difficult and challenging task due to its connotative nature, in addition to being a culture-specific figure of speech (Snell-Hornby, 1988: 57). The problem of

translating metaphor lies in whether to translate the SL metaphor into a TL metaphor, assuming that there is a TL equivalent available, or to provide non-equivalent TL segments for the SL metaphor when a TL metaphor is not available but, in this case, meaning will be affected (Ali Deeb, 2005: 115). See the following examples that were given by Al-Salem (2014, cited in Abdelaal, 2020: 111) to translate metaphors in the poems by Mahmoud Darwish.

No	Source Text	Target Text	Explanation
23.	لا موسوعه الأزهار تسعفني	No encyclopaedia of flowers is any help to me	The metaphor translated into a sense rather than functional metaphor.
24.	والصلاة تكلست	The prayer calcified	The metaphor was translated literally.
25.	أيها الحاضر! تحملنا قليلا فلسنا سوى عابري سبيل ثقلاء الظل	Oh present! Be a little patient with us, for we are only passers-by with heavy shadows .	The metaphor “heavy shadow” is inadequate as it lacks the figurative effect of the ST.
26.	اجاب: حبي نزهة قصيرة أو كأس خمر... أو مغامرة	He answered: My love is a short outing , a glass of wine, an affair/a love affair	The metaphor is translated literally.

As it was noted, the literal translation of a SL metaphor is not adequate as does not convey the SL meaning. However, translating the metaphor into the TL without conveying the figurative meaning of the SL metaphor is also considered an inappropriate rendition. Therefore, translators should work to provide either a TL metaphor or convey the effect of the SL metaphor in their translation, which requires a wide knowledge in both the SL and TL to be able to handle the translation of metaphor.

Another aspect of textual features is the lexical repetition which can be rendered into TT lexical repetition or, alternatively, can be replaced with cohesive device like ellipsis, pronominal reference, or substitution, as in the following example cited in an Arabic short story by Abdul Haq (1992). This work was translated into English as “Bus Walk” by Roberts (1995) (see Farghal and Almann, 2015: 82).

No	Source Text	Target Text	Literal Translation
27.	وهناك سلوى حبيبتي الوحيدة، حبيبتي التي لا توصف...انها حبيبتي، حبيبتي انا...الا يكفي ذلك لكي تعرف سلوى؟	And there's Salwa, my one and only beloved , my marvellous, indescribable beloved . She's my sweetheart , my sweetheart . Isn't it enough for Salwa to be my sweetheart for you to know who she is?	And there's Salwa, my only beloved, my indescribable beloved... she's my beloved, my beloved...Isn't that enough for you to know Salwa?

In the example above, the translator succeeded in conveying the variation and repetition in translation. It is obvious that the translator applies lexical repetition in the TT as a cohesive device even more than that of the ST (Farghal and Almann, 2015: 82).

Reference can express the relationship between linguistic and extralinguistic elements as defined by Lyon (1968) and Brown and Yule (1983) as “the relationship which holds between words and things” Therefore, speaker/writer can refer to the mentioned person or object using proper nouns, noun phrases, and pronouns (Kehal, 2010: 16). Halliday and Hasan (1976: 33) divide reference into two main types: “endophoric reference” (i.e. textual reference) and “exophoric reference” (i.e. situational reference). Each language has its own reference types, which creates problems for translators in the process of translating between these languages (Baker, 2012). Moreover, Baker (2012: 183) believes that “each language has what we might call general preferences for certain patterns of reference as well as specific preferences that are sensitive to text type”. Given the great distance between Arabic and English, there is a difference in using referential words in terms of explicitness (Aziz, 1993). See the following example quoted from Almann and Al-Rubai'i (2009: 14–15):

No	Source Text	Target Text	Back Translation
28.	لذلك عاش الناس بمسرة وابتهاج...ولم يأت احد على ذكر الوزير او الحارس او الملكة التي كانت سيدة الجميع	In this way the people carried on, happy and contented. No one ever mentioned the treasurer, the	Therefore, the people lived happily and cheerly... And no one mentioned the minister, the guard or the

		guard or even the queen, who once had been the mistress of all.	queen, who was the mistress of all.
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The use of the relative pronoun in Arabic *التي* (“who”) in the above example illustrates the effects of referential words on the text as Arabic does not pose any problem with using the relative pronoun to determine which noun or object is the reference because the relative pronoun presents the number and gender in the text. Therefore, the Arabic relative pronoun *التي* refers to “the queen”. However, in English it is difficult, as one should depend on the context to determine the reference of the relative pronoun. This makes it difficult for the translator to determine it and it obliges him/her to use strategies to overcome the problem such as relying on the structure of preceding nouns or objects because relative pronouns normally follow the noun or object they refer to (Aziz, 1989, cited in Farghal and Almana, 2015: 84).

2.1.5 Errors in Translation

In foreign language teaching, an error or a mistake refers to a deviation process that takes place within a system of norms or rules. Accordingly, Wilss (1982: 201) argues that a translation error means “an offence against a norm in a linguistic contact situation”. On the other hand, scholars such as Nord (1997), Sigrid Kupsch-Losereit (1985), or Kussmaul (1986) adopt a functional definition to error and argue that the definition of an error should be based on the intention of the process or product of the translation. Hence, Sigrid Kupsch-Losereit (1985, cited in Nord, 1997: 73) defines a translation error as “an offence against: 1. the function of the translation, 2. the coherence of the text, 3. the text type or text form, 4. linguistic conventions, 5. culture- and situation-specific conventions and conditions, 6. the language system”. Moreover, Nord (1997: 74) relates the errors to the function of translation as she adds: “If the purpose of a translation is to achieve a particular function for the target addressee, anything that obstructs the achievement of this purpose is a translation error”.

On the other hand, Baker (1992) believes that errors in translation are mostly related to the lack of equivalence between the SL and the TL, which requires a linguistic and extra-linguistic background in both languages. Therefore, errors are the main aspect of determining the quality of a translation. Thus, they give an insight into the translator's CP (Seguinot, 1990, cited in Rahmatillah, 2013: 17). In translation, errors are normally related to each other, which reflects the fact that each error has an effect on other errors or problems. Similarly, the solutions to overcome these errors have the same features and, consequently, the ways to overcome these errors have effects on the solutions of other errors. The process is described as networks or hierarchies in which the solution to one problem has an effect on how to deal with other problems (Nord, 1997: 75).

Various taxonomies of errors in translation are found in research such as Pym's (1992) classification, which divides errors into two types: binary and non-binary errors. Binary errors are related to any error that is considered an incorrect translation. On the other hand, non-binary errors are mainly related to inaccurate translation or one which is not completely incorrect. Thus, it can be improved through minor changes. Moreover, in non-binary errors, the translator selects the least appropriate SL equivalent from many adequate choices. Pym (1992) concludes that these two types of errors describe the correlation between translators' competence in a language and their competence in translation. He argues that binary errors refer to language competence that requires improvement. However, non-binary errors refer to the competence in translation, which reflects the availability of different TTs and then choosing the most appropriate one to achieve the objectives and satisfy the receivers of the translation.

Furthermore, Nord (1997:75) suggests four types of errors in translation:

- Pragmatic translation errors: inappropriate solutions to translation problems that are related to pragmatic aspects such as a lack of receiver attitude.
- Cultural translation errors: translator's inadequate management of the cultural differences between the ST and the TT.
- Linguistic translation errors: inappropriate translation when the translator pays more attention to the form rather than the content. Translating as a Purposeful Activity.

- Text-specific translation errors: translation problems that occur due to the specific characteristics of the text which can be assessed from a pragmatic or functional point of view.

Similarly, in order to investigate the performance of students, Altman (1994) suggests four types of errors in translation: inaccurate rendering of an individual lexical item, inaccurate rendering for long phrases, omission, and addition. Each of these errors includes various types of errors, whose seriousness is determined by measuring -or speculating on- “the extent to which they affect the communicative impact of the speaker’s message” (Altman, 1994, 30).

2.1.6 Problems in Interpreting

From a cognitive perspective, SI entails different cognitive processes as compared with translation (De Groot, 2000; Gile, 1995), and that is due to the complex and demanding nature of the task (Christoffels, 2004: 5). Many mental operations occur recurrently and simultaneously as new input is continually flowing, the interpreter is engaged in understanding and comprehending that input and retaining the necessary segments in the memory and, meanwhile, earlier segments of that input should be re-expressed into the TL (Gerver, 1976; Padilla et al., 1995; Christoffels, 2004). The simultaneity and concurrent cognitive processes that take place during the SI task cause problems to processing both the SL and TL and to the allocation of attentional resources which capture the multiplicity of the task (Ivanova, 2000: 37). In his efforts model, Gile (2009: 190) relates the occurrence of the problems in SI to the interpreter’s available capacity. He argues that “problems occur when total processing capacity requirements exceed available processing capacity (saturation), and when processing capacity available for a given Effort is not sufficient for the task it is engaged in at a given time (individual deficit)”.

Gile (2009) concludes that interpreters normally work close to the level of saturation (Tightrope Hypothesis). Consequently, these problems are frequent during the SI task. Thus, even expert interpreters are likely to make mistakes per minute (Gile, 1995; Christoffels, 2004). Gile (2009) classifies the reasons behind online problems in SI into two categories:

chronic reasons, when the cognitive skills and the linguistic and extralinguistic knowledge of the interpreter are not qualified to cope with the competition of four efforts during the SI task, and occasional reasons, which refer to the cognitive saturation triggers that occur in specific circumstances in spite of the interpreter's high expert knowledge. It can be related to objective factors such as semantic, linguistic, and physical characteristics of the SL problem triggers, communicative environment (interpreter's high stress, noisy environment, lack of specific background knowledge), or subjective aspects (errors in the interpreter's processing capacity management or interpreter's memory issues). Meanwhile, expert interpreters believe that several parameters affect their rendering negatively and cause problems during SI (Gile, 2009: 19).

These parameters include SL, speech delivery rate, style, degree of speech specificity, pronunciation aspects, noise of environment, temperature of the booth, the speaker's position and the conference room, the subject's prior knowledge, the interpreter's general mental and health condition, including all his/her personal features and experiences, personal relations between the members of the team, the audience and their reaction towards the interpreter, and the organisers (Gile, 1995).

2.1.7 Past Studies in Interpreting Problems

Several studies have been conducted and models have been developed on the problems of interpreting, focused on the differences between novice and expert interpreters regarding the problems encountered and the strategies applied to overcome these problems (Ivanova, 2000; Abuín, 2007; Arumí, 2012; Alhiyari, 2013; Al-Khufaishi, 2015; Shareef, 2018).

One of the key studies on problems of SI is Ivanova's (2000) experiment, in which a sample of expert interpreters and another one of trainee interpreters conducted a SI task from English (subjects' L2) into Bulgarian (subjects' mother tongue). The study has mainly aimed at examining the subjects post-interpreting reports regarding the cognitive processes that show evidence for the interpreting problems. In order to classify the problems in SI, the study was based on Kring's (1987) translation protocols, which define a problem as "breakdowns in automatic processing" (Faerch and Kasper, 1987). The results of this study

show the main types of problems that are incompatible with the following mental processes that were used in interpreting: comprehension, translation, simultaneity of the task, and monitoring.

The results also reflect that experts have comprehension problems more than other codes as they were able to recall most of the problems with completely integrated information regarding all the segments of the text. Moreover, they also reportedly encountered perceptual problems during the SI task, which were mainly related to mishearing of personal names. Similarly, the results reflect that novice interpreters identified text comprehension problems, particularly integration of information as a main CP, which shows evidence of problems in the SI task. However, novice interpreters report more cognitive processing problems than those of the experts (Ivanova, 2000: 40-43).

One of the productive studies with regard to interpreting problems and interpreter's strategies was conducted by Abuín (2007). In this study, she experimentally identified and described the main problems and strategies detected by three groups of interpreters with different degrees of expertise after a CI task between English and Spanish. The results show that beginning students identified more problems than the other two groups, experts and advanced, in all interpreting phases: comprehension, note-taking, and reformulation. In the same line, Arumí (2012), analyses in her pilot study the interpreting problems that are related to the cognitive processes encountered during a consecutive interpreting task from English into Spanish by two samples of students, novice and advanced interpreters who were conducting training at two unsimilar stages. The results indicate that novice students have reportedly encountered more problems as compared with advanced students and these problems vary in kind, based on the training level, while advanced students were not convinced with their reaction towards resolving the problems.

It is worth noting that Mankauskienė (2018) presents a quantitative analysis of problems and difficulties to five groups of interpreters with different interpreting training levels. This study is based on Nord's (1997) distinction of subjective difficulties that are related to interpreters' skills, and to the problems that are objective obstacles that are considered difficult to render irrespectively of the interpreters' interpreting skills. This methodology of

distinguishing between these two categories has confirmed some common views on interpreting. Thus, it reflects different outcomes regarding all the participants who took part in the experiment. The results of this study support the claim that both experts and students face common difficulties during the SI task. However, this study asserts that expert interpreters deal with the difficulties more appropriately than students. In other words, experts have the experience to strategically overcome these difficulties.

In the English-Arabic language combination, Shakir and Farghal (1997) study the pragmatic impact of lexical items and conjunctives on the type of ST during the SI from Arabic into English. This study investigates the claim that both textual components, lexical items and conjunctives, have important effects on identifying the intended meaning of the communicative activity, particularly in hortative texts. To achieve the objective of this study, 10 MA translation students participated in a SI interpreting task from Arabic into English which includes five Arabic conjunctives and four emotively-loaded lexical expressions. The two authors found that most of the subjects could not render the conjunctives appropriately, which has a negative effect on the text function. The results show that subjects' renderings for the four key lexical expressions separate them from the emotive nature which was originally incorporated in the ST, and consequently this has negative effects on the TT (1997: 229-240).

Al-Khufaishi (2015: 552) developed a model of CI that can manage to deal with pragmatic, stylistic, linguistic, communicative, thematic, and discourse problems during an interpreting task between Arabic and English. In this study, the analysis is mainly based on a linguistic transcript of one hundred pages of English speeches used at the United Nation General Assembly sessions which were rendered into Arabic. This model fits the communicative contexts of both the SL and TL and depicts the interpreter as a mediator who interprets the SL text and produces it in the TL appropriately. The model is examined against the data collected for this study and reflects the ability to identify the inconsistent and inaccurate aspects in the interpreting task, particularly in the following categories: lexical, stylistic, textual, structural, and collocation.

Alhiyari (2013) investigates the challenges that were faced by novice interpreters during the interpretation of scientific texts between English and Arabic. This study aims at identifying the causes of these challenges and tries to find successful solutions to overcome these challenges during the interpreting task. As an instrument applied in this study, experts and experts who teach interpreting courses or take part in academic conferences performed open-ended interviews. The findings of the study reflect various types of difficulties that graduate students have faced during the interpretation of these texts. The difficulties were mostly related to types of terminology, unavailability of some SL equivalents, the existence of many acronyms and abbreviations, and stylistic and structural aspects of the ST. Furthermore, the analysis shows the unawareness of subject matter, memory issues, and the need for necessary training courses, leading to additional difficulties for the graduate student interpreters. The study recommends having expert and experienced interpreters to conduct the interpreting of such kinds of texts.

In his master's thesis, Issa (2018) researches the analysis of main problems conference and TV interpreters whose A language is Arabic face. These problems include speaker's accent, speech rate delivery, noise, idiomatic expressions, jokes, religious structures, in addition to the strategies that were applied during the exposure to real-time meeting sessions. He found that speech rate delivery and speaker's accents were the major challenges for most of the participants. However, the strategies or the coping tactics used to solve these challenges vary among the participants. Furthermore, Issa (2018) was against the idea of applying omission in the media setting, especially in Security Council Resolutions and presidential speeches, as deleting any part will mislead the audience.

Al-Rubai'i (2004) prefers to focus on the structural differences between English and Arabic in the SI task. The study examines the impact of six complicated English linear orders on the quality of interpreters' performance during the interpretation of three types of texts: expressive, informative and vocative. These arrangements normally cause problems for interpreters because they include items that force the interpreter to lag more than they are supposed to before they start rendering into Arabic. This lagging behind negatively affects the working memory and the performance of the interpreter. On one hand, this study uncovers that the subjects have applied a tactic called "tracking" to overcome the omissions and errors to closely follow the speaker, particularly during the interpretation of vocative

passages. On the other hand, departures were higher in the informative and expressive texts rather than vocative passages.

This study, in contrast with the previous research, will focus on lexical, syntactic, and cultural problems that simultaneous interpreters face between English and Arabic. These aspects represent the core items of any language which must be mastered by interpreters, especially in interpreting between distance languages such as English and Arabic. It will identify which aspect of these problems is the major part that is mostly encountered by expert and student interpreters during the SI task. The research will investigate the effects of directionality on the problems encountered by both groups in the English-Arabic combination, in addition to identifying the effect of each problem on the interpreting process.

2.1.8 Problem Triggers in Interpreting

Gile (1995) develops the Efforts Model to describe in particular the recurrent mental operations that, due to increased capacity requirement, cause problems for interpreters and interpreting students during the process of interpreting. Gile (1995) indicates that

“In the Effort Model framework, PTs are seen as associated with increased processing capacity requirements which may exceed available capacity or cause attention management problems, or with vulnerability to a momentary lapse of attention of speech segments with certain features” (Gile, 2009: 171).

He argues that, so far, there is neither a conceptual framework for the analysis of problem triggers nor a clear analysis of their complexity. In other words, various studies have investigated particular problems such as numbers (Mazza, 2001, Liu and Xiao 2010), idiomatic expressions (Cattaneo, 2004), noise (Gerver, 1971), names (Meyer, 2008), rapidly delivered speeches (Gerver, 1969, 2002; Gile, 1995), and the speaker’s accent (Lin et al., 2013).

With reference to the relationship between PTs and the processing capacity requirement, Gile (1999) asked 10 expert interpreters to participate in SI tasks two times for the same SL speech and environment. The results reflect that the subjects corrected many errors and omissions that occurred in the first task while other new omissions and errors occurred in the second one. This indicates that interpreters' processing capacity requirement is limited which, consequently, leads to inadequate allocation of necessary attentional resources to cope with the cognitive challenges of the task. Later on, Gile (2009) decides to replicate the study and discover the same results.

In her experiment, Mankauskienė (2016) investigates the PTs that occur at the languages' interface during the SI task between English and Lithuanian. In this study, two groups of interpreters participated in the experiment: beginner and experienced interpreters. Both samples rendered the SL speech two times in order to mitigate the effects of cognitive load, speaker's related difficulties, and the technical PTs. For the purpose of this study, the analysis includes only the second rendering. The general objectives of this study are to highlight the PTs that affect negatively on the interpreting process and lead to errors and omission, and specifically to investigate the problems that resulted from one problem trigger which is lexical items. The study reflects this taxonomy is important not only for the identification of well-known PTs such as proper names, numbers, or acronyms, but also in discovering other PTs that are not widely introduced. For example, when particular items are group together into these lexical elements which do not have equivalents in the TT, as in renderings into Lithuanian or into other languages.

Shamy (2020: 339) discusses seven types of PTs specific in the combination of English and Arabic. These PTs were divided into three levels of discourse: syntactic level (acronyms, word order), syntactic-pragmatic level (passive constructions, argumentation styles, definite article as means of emphasis), and semantic- pragmatic level (modals, discourse markers). Shamy (2020: 346) states: "making students aware of potential PTs and having them develop strategies to deal with them would lead to a better use and coordination of cognitive efforts." Obviously, from the research on the topic of PTs we see that several researchers prefer to study one specific problem trigger while others tackled several PTs with different levels of discourse. However, little research has been conducted on several PTs within different discourse levels in SI between English and Arabic, which will be investigated in

this study. Moreover, it will discuss the effect of directionality on these problems between English and Arabic.

2.1.9 Classification of Cognitive Problem Triggers in SI

As explained earlier, the main objective of the Efforts Model is to clarify the interpreting difficulties that interpreters and students encounter during the process of interpreting, particularly the recurrent problems which have not been investigated before through the use of the common conceptual framework such as names, numbers, enumerations, fast speeches, strong foreign or regional accents, poor speech logic, poor sound, etc. (Gile, 2009). These problem triggers (PTs) are described in the Efforts Model framework as “associated with increased processing capacity requirements which may exceed available capacity or cause attention management problems, or with vulnerability to a momentary lapse of attention of speech segments with certain features” (Gile, 2009: 171). The classification of PTs is mainly intended for pedagogical purposes and, due to its comprehensiveness, six types of categories will be studied in this study which represent three levels of discourse, namely: lexical, syntactic, and cultural. Below, we see an overview of the PTs classification as described by Gile (1995) which includes:

1. Problems arising from an increase in processing capacity requirements

a. High density of the ST which can be accompanied with:

– *A high delivery speech rate.*

– *High density of the information content* of the speech or of particular speech segments such as *enumerations.*

b. *External factors* such as *bad quality of the sound* which comes from interpreter’s earphones, high noise, or other sound issues.

c. *Unknown names* that consist of several words which increase capacity requirements for the *Memory Effort* unless these names are familiar to the interpreters in the TT.

d. *Saturation*, which refers to an increase in processing capacity requirements in the Short-term Memory Effort when there are syntactic differences between the SL and TL which may force the interpreter to keep a large amount of information for some time before being able to process it in the TL.

2. Problems associated with signal vulnerability

Some parts of speech seem to require few processing requirements but are more likely to be considered problematic elements for interpreters due to their high informativity, high density, low redundancy, and their pronunciation may sound very much alike, such as numbers, proper names, and acronyms.

3. Language-specificity related problems

3.1 Possible language-specific differences in the perception of SL

- a) Differences in the words' perception
- b) Grammatical redundancies
- c) Syntactic structures
- d) Sociolinguistic aspects

3.2 Possible language-specific differences in speech production

3.3 Culture-specific difficulties

3.4 Implications for training

4. The speaker factor

To achieve the objectives of this study, six types the problems will be investigated in this study which cover most of the PTs; lexical (proper names, numbers), syntactic (collocations, passive voice), and cultural (culture specific terms, structures with religious content) problems which increase the capacity requirement and pose cognitive load on the interpreters especially when interpreting between English and Arabic, two languages with asymmetric lexical, syntactic, and cultural systems as will explained in the next sections.

2.1.10 Lexical Problems in both Translation and Interpreting

Newmark (1981, cited in Abdelaal, 2020: 95) suggests three unrelated ways to view any lexical item: dictionary items such as different kinds of meanings (i.e. figurative, technical, colloquial), degrees of frequency (i.e. collocational, primary), and the core and peripheral meanings. Consequently, these senses may pose difficulties for the translator during the translation task if he/she cannot distinguish between these senses. According to Ghazala (2008: 83), most of the translation problems encountered by students are lexical problems

as they pay more attention to word by word meaning ignoring the contextual meaning of an utterance.

In interpreting, the case is more difficult as interpreters have to provide a lexical equivalent simultaneously under various cognitive efforts which makes interpreting a demanding process. Interpreting lexical items has been tackled differently by interpreting researchers. Seleskovitch (1975) argues that interpreters should deverbalize the ST and convey the sense into the TT. However, some lexical items (names, numbers, technical terms) should be transcoded into the TL. On the other hand, Gile (2009) in his effort models states that interpreting these lexical items is normally “associated with increased processing capacity requirements which may exceed available capacity or cause attention management problems, or with vulnerability to a momentary lapse of attention of speech segments with certain features” (Gile, 2009: 171). In the next sections, lexical problems will be limited to investigating the problems of interpreting “proper names” and “numbers” in SI as part of PTs. These two lexical items increase interpreter’s processing capacity requirements and require more attentional resources.

2.1.10.1 Proper names

It is necessary to differentiate between a proper noun and a proper name, as the latter can be a single word or more than one word while the former is considered to be one single word (Quirk et al., 1985: 288). Since this study deals with the problems encountered by interpreters with regard to the names of people, places, organisations, etc., which are mainly composed of more than one word, the term “proper name” will be used throughout the study. Translating proper names received specific attention by scholars and researchers in both translation and interpreting studies as they present difficulties during both tasks. Newmark (1993: 15) argues that proper names pose difficulties for translators in any discourse. In general, in literary texts, it has to “be determined whether the name is real or invented while in non-literary texts, translators should think about providing extra information about the names in order to clarify and disambiguate the information for the TL readership.”

Similarly, Moya (1999) investigates translators’ ability to explain, add or omit the names based on their linguistic and extralinguistic knowledge during the translation of journalistic texts. Moreover, Grass (2006) conceives translating and adapting names of foreign places

might have a political and historical background and, consequently, it could not be considered that trivial (see Meyer, 2008). In the same line, translating proper names is regarded as an important decision-making method as Vermes (2003) states “the translation of proper names has often been considered as a simple automatic process of transference from one language into another, due to the view that proper names are mere labels used to identify a person or a thing” (Vermes, 2003: 89-90). Moreover, translating proper names should not be deemed as a trivial aspect but it requires making a suitable decision in order to carefully understand the meanings of the names before making the decision of translating them into the TT (ibid.).

Moya (2002) suggests two techniques to translate proper nouns, namely, naturalisation and transfer. By naturalisation, Moya means a translating process based on transferring SL proper names into the TL by changing the SL word according to the phonological and morphological aspects of the TL (see Moya, 2000: 13-3). This technique tries to clarify the ambiguous aspects of the SL name to cope with the expectations of TL readers. On the other hand, the transfer technique refers to a process of translation which includes reproducing the SL word in the TL text (transliteration) (Moya, 2000: 13).

Various studies have tackled the topic of translating proper names and the challenges they may cause for translators, particularly in translating between culturally different languages like English and Arabic. Aziz (1980: 70-87) investigates the process of transliteration in the translation of English proper nouns into Arabic, and the main difficulties that transliteration of English proper nouns poses for translators. The study indicates that transliteration only means nearest equivalent, vague and imprecise transliteration should be avoided, consistency is important in the process of transliteration, and in language with long written tradition, radical changes should be minimum.

Ghazala (2008: 172) on the other hand, indicates that translating English proper nouns into Arabic is not a straightforward process; it causes problems. Hence, three procedures should be followed to translate proper nouns between English and Arabic:

- a) Transcription: it means conveying SL proper names in TL (transliteration) which shows respect for people’s names which are purely cultural. Furthermore, Ghazala (2008: 172) believes that it is a right for everybody in the world to his/her name

retained in the translation. See the following examples, as cited in Ghazala (2008: 172):

No.	Source Language	Target Language
29.	Bill	بيل
30.	Emma	ايمما
31.	Ivan	ايفان
32.	Olivia	اوليفيا

b) Transcription / Naturalisation: there are several shared names between English and Arabic, particularly in religion and history. Hence, naturalisation is considered an appropriate choice for translators to render English names which refer to the same character, particularly the names of prophets and the Virgin Mary. See the following examples (Ghazala, 2008: 174):

No.	Source Language	Target Language
33.	Abraham	إبراهيم
34.	David	داود
35.	Joseph	يوسف
36.	Jonah	يونس

Nevertheless, when they refer to ordinary people, they can be transcribed because they become mere English names, as in the following examples:

No.	Source Language	Target Language
37.	Abraham	ابراهيم
38.	David	ديفيد
39.	Joseph	جوسيف
40.	Jonah	جوناه/جوننا

a) Naturalisation: It is the adaptation of the foreign terms to the grammar, spelling and pronunciation of Arabic Language such as the names of famous poets, scientists, philosophers and mythological heroes in history, as in the following examples (Ghazala, 2008: 175):

No.	Source Language	Target Language	Occupation
41.	Alexander	الاسكندر	a leader
42.	Aristotle	ارسطو	a philosopher
43.	Hercules	هرقل	a legendary hero
44.	Homer	هوميروس	a poet

To sum up, Ghazala (2008: 176) states that proper names in English-Arabic translation should mostly be transcribed, except several cases that should be naturalised but never translated. However, sometimes students transcribe English names incorrectly but it can make sense anyway. In some cases, the incorrectly transcribed name becomes standardised in the TL, as in the following example:

No.	Source Language	Target Language	Back Translation
45.	Lincoln	لنكولن	لنكن

In interpreting studies, the focus on interpreting proper names goes back to Seleskovitch's model (1962) in which proper names require linguistic "transcoding" rather than interpreting. In this model, the process of "transcoding" is simple, mechanistic, and only entails the transference of SL names into TL names (Seleskovitch, 1962, cited in Pöchhacker, 2004: 97). Contrarily, Gile (1995) argues that proper names are among those potential problems that the interpreter encounters during simultaneous interpreting, especially when interpreters are not familiar with these names or lack their phonological characteristics in the TL (Gile, 1995: 173).

In his "Efforts Model", Gile (1995) believes that interpreting proper names, numbers, and acronyms increases processing capacity requirements, causes attention management problems, and poses a cognitive load on interpreters' minds and thus requires certain "coping tactics". In his experiment, Gile (2009: 194) indicates that any minor error in attention may distort the information. In his study, Gile (2009: 194) recruits fifteen expert interpreters to render a recorded speech that includes eight proper names. The percentage of adequate renderings was very low even for those common names such as "Jim Joseph"

(Gile, 2009: 194). This problem is not related to saturation, but to the unavailability of processing capacity in one of the four Efforts.

Vianna (2005, cited in Meyer, 2008: 109) investigates the challenges of SI as compared with written translation. She argues that “if speaker and interpreter share contextual assumptions not accessible to the audience”, as with the rendering of proper names, the interpreters can clarify, adapt, or omit information which is not clearly expressed in the SL text. One of the key studies on the interpreting of proper names is Meyer’s research (2008). In this study, Meyer (2008) examines the claim that proper names can be interpreted differently in SI and CI. The performances of a sample of five consecutive and simultaneous interpreters were collected and analysed. The findings of this study reflect that a number of proper names were rendered in a different way than that of the original. Moreover, there were clearly no differences that were identified between SI and CI tasks. This may be due to the interpreters themselves not being familiar with the name or having a problem with listening to the names. Therefore, they used a more general “dummy” name that does not need particular knowledge for the interpreter and the audience (Meyer, 2008: 120).

2.1.10.2 Numbers

It is necessary to differentiate between numbers which are considered as arithmetical objects, and numerals which refer the names used to name them (Hurford, 1987). It is commonly known that numbers are one of the PTs that require particular attention from the part of interpreters due to the challenges they pose during the process of interpreting (Gile, 1995, 2009). These challenges require more processing capacity and lead to a cognitive load which does not only affect the interpreting of numbers themselves but the neighbouring segments as well and, consequently, this distorts the interpreting process (Mackintosh, 1983; Gile, 2009; Mead, 2015). From a cognitive point of view, numbers are also considered as one of the aspects that cause cognitive pressure, particularly when they are processed in a bilingual context (Korpál and Stachowiak-Szymczak, 2018: 338). Thus, Mazza (2001: 90) relates the difficulties of rendering numbers in SI to three aspects:

- a) low predictability (Braun and Clarici, 1996), which leads to an increase in the Listening and Working Memory Efforts as no anticipation is possible with numbers.

In other words, interpreters have to interpret numbers once they are delivered by speakers;

- b) low redundancy (Gile, 1995: 108), which also causes an increase in the Listening and Working Memory Efforts as interpreters cannot miss or omit any element of numbers. Besides, they even cannot be inferred or elicited from the context;
- c) high informative content (Alessandrini, 1990), which leads to an increase in all processing Efforts as the information included in the numbers are valuable and must be completely conveyed into the TL.

In the same line, Mead (2015: 286) believes that the difficulties of interpreting numbers are attributed to the following characteristics: Firstly, numbers are closely related to the corresponding numbers, which denies their association with linguistic and extralinguistic referents. Secondly, the neural representation of numbers in the brain (numerical cognition) is different from that of lexically expressed concepts (Cheung, 2009). Jones (2002: 117), on the other hand, argues that numbers are a very complex entity that interpreters should not deal with as merely an arithmetical value, but as including five elements: the arithmetic value itself, the magnitude order in interpretation, the unit (i.e. dollar), their reference, and their relative value. Jones (2002) concludes that these difficulties require online strategies that can help interpreters to render numbers appropriately.

In this context, Gile (2009: 202) suggests that the passive interpreter could assist the active interpreter in the booth, specifically in rendering numbers, as the former can write the number down while the latter is busy with performing multiple tasks during the interpreting processes. Jones (2002: 118) believes that interpreters are able to deal with one segment of numbers easily as it can be kept in the short-term memory for several seconds, but in rendering two or more segments of numbers, interpreters need assistance other than pure memory in order to produce adequate renderings. Therefore, Jones (2002) proposes that: a) interpreters, in order to mitigate the cognitive load posed by numbers, should deliver the numbers in the TL immediately after uttered by the speaker; b) if the speaker delivers numbers fast, interpreters can write the number down even in Arabic numeral codes, which is the easiest way to follow SL pace and does not burden the efforts with extra processing capacity; c) interpreters can choose the appropriate way to interpret numbers as they think it convenient. He gives the following example: “a speaker may say, we have allocated six million five hundred and forty-three thousand dollars to the project”. The interpreter

considers it easier and quicker to interpret it into “six point five four three million dollars” (Jones, 2002: 120).

Notwithstanding, there is almost unanimous agreement about considering numbers as a source of difficulty for the interpreter, and there is relatively little systematic investigation of this topic (Mead, 2015). Several experimental studies have been conducted on the interpreting of numbers in simultaneous and consecutive interpreting, which indicates that interpreting numbers is problematic for both expert and student interpreters, such as Alessandrini (1990), Braun and Clarici (1996), Mazza (2001), Desmet et al., (2018), and Korpala and Stachowiak-Szymczak (2020).

In their experiments, Mazza (2001) and Pinochi (2009) investigate the causes of problems in interpreting numbers, types of problems, the effect of directionality, and if the process of notetaking is useful during the interpretation of numbers. The results show interpreting segments with numbers is more difficult and less accurate than rendering those parts without numbers. Omissions are considered the main sort of mistakes which mostly involve the surrounding text. Moreover, the studies reflect that accuracy in interpreting numbers has not been affected by notetaking. Regarding language combination (in this case interpreting between German or English and Italian), two specific features of numbers in a German source text require more processing capacity requirements: numerals in German are not only considered lengthier than in Italian or English, but also place units before tens which not only imposes extra cognitive load on the working memory, but also requires rearrangements of units in the TLs (see Mead, 2015: 287). To categorise the mistakes and errors made by interpreters during interpreting numbers, Braun and Clarici (1996) present the following classification that was adapted by Mazza (2001):

1) *omissions*: number segments were omitted totally or replaced by a general item such as “many”, “few”, etc.;

2) *approximations*: the interpreter follows the correct arrangement of the number segment, but it is rounded up or down (i.e. 2,933,462 being translated as “about 2,900,000”);

3) *lexical mistakes*: the interpreter keeps the arrangement of the number, but its elements are in the wrong order; they are either misplaced or inverted (i.e. 763 being rendered as 637; 1964 as 1946);

4) *syntactic mistakes*: although the TT number is in the right sequential order, it differs from that of the SL number, or there are changes and modifications in the nature of the number (i.e., 220,000 becomes 220);

5) *phonological mistakes*: the interpreter encounters problems with perceiving sound figures in the SL that affect his/her TL equivalent. (i.e., 19, “nineteen”, perceived as 90, “ninety”);

6) *other mistakes*: these include potential mistakes that were not included in any of the previous types (Mazza, 2001; 94).

As for English –Arabic numeral systems, both systems have ordinal and cardinal numerals. However, there are several differences that can cause problems for translators and interpreters, specifically in rendering from English into Arabic, which can be attributed to several morphological and lexical differences (Ryding, 2005: 330). Some of these differences are:

1. as compared to English, Arabic numerals 1-10 have both masculine and feminine forms as the feminine has the suffix *-at*, which is the normal way of pronouncing them separately. However, the first two numerals are said in masculine form, whose feminine counterparts are *wahida* or *ihda* and *thintan* or *ithnatan* respectively. Thus, the same feminine suffix can be applied, albeit as an infix in *ithnatan* (Jassem, 2012: 227). See the following examples from Ryding (2005: 330):

No.	Source Language	Gender	Target Language
46.	في وقت واحد	Masculine	At one time
47.	قبل ان يخفف العقوبة الى سنة واحدة	Feminine	Before he enlightened the penalty into one year
48.	تضم ممثلين اثنين عن كل جانب	Masculine	It includes two representatives from each side
49.	تضم ممثلتين اثنتين عن كل جانب	Feminine	It includes two representatives from each side

50.	فائتنتان منهما تعتبران معقلا للمعارضة	Feminine	For two of them (cities) are considered a stronghold for the opposition.
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2. Arabic has a dual category in its grammatical system that agrees with its case and gender, as in the following examples (Ryding, 2005: 330):

No	Source Language	Target Language
51.	خلال السنتين الماضيتين	During the past two years
52.	دخل الملكان	The two rulers entered (referring to a king and queen)

3. In the Arabic numeric system, the numbers 20-90 have the plural suffix *-een* (or *-oon*, according to case) attached to the masculine form, while in English numerals there is "ty" attached. However, they do not show any gender distinction (Jassem, 2012: 227). See the following examples (Ryding, 2005: 330):

No	Source Language	Case	Target Language
53.	خمسون من موظفو المحطة	Nominative	Fifty of the station employees
54.	بعد مرور أكثر من ستين عاما	Genitive- accusative	After the passage of more than sixty years

2.1.11 Syntactic Problems

In the process of interpreting, syntactic tasks are required within both comprehension and production phases as the interpreter has to decode the SL syntactic elements during the comprehension stage and encode them during the TL production stage (Seeber, 2015). Encoding and decoding syntactic elements are demanding tasks and increase the interpreter's processing requirements (Gile, 1995). As it was clear with lexical problems (proper names and numbers) that cause problems for translators/interpreters, syntactic differences have the same effects, as they require waiting and storing much information in short-term memory before reformulating the message in the target language (Wilss, 1978; Gile, 2009; Seeber, 2015).

Highlighting the importance of syntactic aspects in interpreting, Kirchhoff (2004: 99) suggests a complex variant in his processing model that includes a short-term memory

storage of input segments which involves storing the differences in syntax between the SL and the TL. Various studies shed light on the syntactic variants and their effects on the process of interpreting, such as Dillinger (1990), Setton (1999), and Tommola and Helevä (1998). Dillinger (1990) investigates the effect of structural differences of the text on the interpreter's comprehension with regard to the syntactic environment in terms of clause density and embedding.

The results show that syntactic variables in terms of the clause's density and embedding have only few effects on the performance of interpreters during the interpretation between English and French. This result is in line with Setton's (1999) findings in his analysis on expert interpreters in Chinese–English and German–English SI tasks. The study finds that syntactic elements do not have a negative effect on SL (Setton, 1999: 270). Meanwhile, Tommola and Helevä (1998) investigate in an experimental study students' working from English into Finnish. These two authors argue that syntactic complexity has a significant effect on the accuracy of the TL message as measured by propositional analysis (see Pöchhacker, 2004: 131). Language combination has a significant effect on the difficulties that syntactic differences cause for interpreters, particularly when both SL and TL are syntactically different.

This study will focus on the problems that interpreters' encounter in interpreting passive voice and collocations during SI tasks.

2.1.11.1 Passive voice

Baker (2018: 114) defines voice as “a grammatical category which defines the relationship between a verb and its subject”. In English, voice could be active or passive, in which the relationship between active and passive require two grammatical levels: the verb phrase and the clause (Quirk, 1972: 652). In both clauses, the subject has different functions: in active clauses, the subject is considered as the agent who is in charge of implementing the action, while in passive voice the subject is the entity who receives the effect of the action. Thus, the agent could or could not be identified, based on the structures available in each language (Baker, 2018: 114). The following examples illustrate the differences between active and passive voices in English, as quoted from Baker (2018: 115):

(55) Active: Nigel Mansell opened the Mansell Hall in 1986.

(56) Passive: The Mansell Hall was opened in 1986.

(57): The Mansell Hall was opened by Nigel Mansell in 1986.

The sentence in (55) is an active sentence in which the subject “Nigel Mansell” is the agent (doer) of the action “opened”, and the affected entity is “Mansell Hall”. In (56) and (57) the changes in the form of the verb exist in the passive voice to reflect the subject has the effect of the action but not the agent. However, the structure in (57), in which the agent is clearly identified in the passive clause, is not that frequent as compared with the structure in (56), where there is no reference to the agent. It could be due to the fact that passive voice in most languages permits the use of “agentless” clauses (Baker, 2018: 115). In other words, El-Yasin (1996: 19) identifies the main differences between passive and active structures in English as: a) the subject in the active is the doer or performer of the action while the passive subject is the receiver or the affected part of the action, and b) it is possible to omit the doer in the passive but not in the active voice, particularly in the noun phrase.

Arabic, on the other hand does not seem to use passive structures commonly, and if passive is used there is no natural way to mention the doer (Farghal, 2008; El-Yasin, 1996). In other words, the use of passive in Arabic is not quite common and that is due to the existence of reflexive verbs that are related to their non-reflexive counterparts as the relation between passive and active (El-Yasin, 1996: 20). See the following examples:

No	Source Text	Target Text	Literal Translation
58.	رفع الرجل رأسه	The man raised his head	Raised the man head his
59.	ارتفع رأس الرجل	The man's head was raised (by someone or something)	Raised head the man

Obviously, the translation in (59) is inappropriate as it refers to the doer when Arabic never has such reference; the Arabic verb “ارتفع” “to rise” is an intransitive active verb and shares with “رفع” “to raise” the semantic features represented by the root ر-ف-ع. However, there is a syntactic difference between them which requires one argument less and accepting a subject equivalent to the object of “رفع” “raise” (see El-Yasin, 1996: 21).

Another feature of the Arabic passive structure is to mention the doer at the end of the passive construction proceeded by "من قبل" "by". This tendency has emerged recently in Arabic and is related to the effects of European languages, particularly in the field of translation (Al-Najjar, 1984; Saraireh, 1990). In contrast, various Arabic scholars agree that the only way to express the doer is to use an active structure, which implies that applying the agent (doer) at the end of Arabic passive structure is rejected (Wright, 1974; El-Yasin, 1982, 1996; Farghal, 1991). Al-Najjar (1984: 158, on the other hand, suggests two ways to express English agentive passive in Arabic: either as an agentive passive or as an active voice clause. This author seems to apply active voice in Arabic as it is well formed. See the following example quoted from (Farghal and Al-Shorafat: 1996: 100):

No.	Source Text	Target Text	Back Translation
60.	He will study the plan which was presented by his advisor	أ) سيدرس الخطة التي قدمت من قبل مستشاره ب) سيدرس الخطة التي قدمها مستشاره	a-He will study the plan which was presented by his advisor. b-He will study the plan which present it his advisor

As indicated by Farghal and Al-Shorafat (1996), Al-Najjar (1984) limited his view to English passivized relative clauses which can easily be rendered into Arabic embedded topic-comment forms as in (b), rather than the clumsy agentive passive (a). Farghal and Al-Shorafat (1996) claim that Al-Najjar (1984) avoids translating more complex structures such as matrix passive sentences. However, El-Yasin (1996) argues that in order to identify the form and the meaning of an English passive construction, a translator has to render English passive voice into Arabic topic-comment form. See the following examples quoted from Farghal (1991: 144):

No	Source Text	Target Text
61.	اغتيال اليساريون الرئيس	a-The leftists assassinated the president or, b- the president was assassinated by the leftists
62.	أغتيل الرئيس	The president was assassinated

Obviously, the translations in (a) and (b) maintain the topic-comment or theme-rheme representation, as in both translations the president “الرئيس” occupies the topic position while the rest is considered the comment or theme. Al-Yasin (1996) points out that the translation in (b) as considered by Farghal as a functional equivalent rather than formal one (a). Arabic is more concerned with the اليساريون “the leftists” than with the الرئيس “president”. Meanwhile, the English passive version considers the “president” as the topic and the “leftists” as an aspect of the comment, which illustrates that the English passive translation in (b) is not an appropriate Arabic equivalent.

Similarly, Farghal (1991: 145) states that passivisation is a matter of a thematisation option in translation in which all elements can be mentioned in English, whereas Arabic considers it a pragmatic choice in which the agent can be dropped deliberately, otherwise an active construction is used. Farghal (1991: 145) comments on the example above stating that in example (35) it is the only choice for Arabic speakers to mention the agent in the sentence, otherwise he/she can use passive as in (36) and drop the agent. In English, it has two translations based on thematisation; if the translator wants to focus on “the leftists”, he/she can say “the leftists assassinated the president” or, if the focus is on the president, the translation would be “the president was assassinated by the leftists” (Farghal, 1991: 144). This could be compatible with Ghazal’s (2008: 246) view about the translation of English passive into Arabic. Ghazal (2008) insists on translating SL passive/active into TL passive/active unless there is no equivalence available in the TL.

Moreover, he criticised some Arab translators who believe that it is better to translate English passive structures into Arabic active structures as, in contrast to English, Arabic is an active language. Ghazal (2008) concludes that both English passive and active should be translated into Arabic passive and active as they both have specific functions that are clearly reflected on the meaning. See the following example quoted from Ghazal (2008: 246):

No	Source text	Target Text
63.	The Zionist soldiers killed five Palestinian children yesterday	قتل الجنود الصهيونية خمسة أطفال فلسطينيين أمس
64.	Five Palestinians were killed yesterday	قُتِلَ خمسة أطفال فلسطينيين أمس

As it is clear, the first sentence is active focusing on the doer (Zionist soldiers), which could be used by Arab and anti-Jewish mass media, while the second sentence is a passive construction hiding the doer of the action and could be applied by Jews and pro-Jewish media. Therefore, the function of applying passive and active structures in the SL is important to be conveyed into the TL. Moreover, the only way to change the active into passive which keeps the agent unknown is to insert the verb of completion (تم) followed by the noun of the main verb of the sentence, as in the following translation for the above example (64) تم قتل خمسة أطفال فلسطينيين امس (64). In this case, SL function is retained in the TL.

Clearly, translating passive voice from English into Arabic causes problems for translators/interpreters as Arabic does not tend to use passive when the agent is mentioned in the sentence (Al-Yasin, 1996). Translators/interpreters should master both linguistic and extralinguistic knowledge to handle the passive voice, as converting the passive into active may deviate the meaning and affect translation. The literature highlights passive and active relations specifically in translation because passivation in interpreting has not yet received much attention. This problem is clearly identified in translation. However, one can imagine the difficulty in conveying these structures during complex interpreting tasks such as simultaneous interpreting.

Due to poor research that deals with interpreting passive structures between English and Arabic, this study will investigate whether the novice and expert interpreters are aware of this problem or not, and how they can deal with it during the SI task.

2.1.11.2 Collocations

A lot of literature has been written about collocation in translation studies. There is a controversy among linguists and scholars on the definition of collocation. Baker (2018: 54) defines collocation as “the tendency of certain words to co-occur regularly in a given language”. Similarly, Ghazala (2008) considers collocation as a “combination of two or more words that always occur together consistently in different texts and contexts in language”. Baker (1992: 55) points out that collocation has a very important part in the language as it can be seen as its most beautiful aspect. It is inevitable in any kind of texts without exception. Consequently, Khalel (2019) highlights the main characteristics of collocation as:

- a) no item can be inserted between the co-occurrence of items, i.e. it is impossible to insert an item in this collocation: “bread and butter”;
- b) no replacement or change can take place in the elements of a collocation even if they are synonyms, i.e. although the words “trip” and “journey” are synonyms, “journey” cannot collocate with business as in “John is always on business trips”, but not “John is always on business journeys”;
- c) collocation belongs to irreversible binominal, in that the collocated elements are fixed, i.e. we say “bread and breakfast” but not “breakfast and bread”
- d) collocation has a high degree of expectation, i.e. when we hear “more” immediately one will expect that “less” will follow (Khalel, 2019: 23-24).

Several classifications of collocations have been proposed (Newmark, 1988; Benson et al.,1986; Obana, 1993; Ghazal, 2008; Nofal, 2012). However, most of these categories are purely grammatical, relying on the syntactic arrangement of word classes and based on their occurrences together within the language use (Cruse, 1977; Ghazal, 2008). The adoption of grammatical arrangements to describe collocations facilitates following and understanding their structures, and consequently makes their translation, particularly into Arabic, easier (Aziz, 1982; Ghazal, 2008). Moreover, Newmark (1988: 213) states:

“Translation is sometimes a continual struggle to find appropriate collocations, a process of connecting up appropriate nouns with verbs and verbs with nouns, and, in the second instance, collocating appropriate adjectives to the nouns, and adverbs or adverbial groups to the verbs; in the third instance, collocating appropriate connectives or conjunctions.”

Hence, Newmark (1988: 212) classifies collocations into three categories: adjective with a noun, noun with a noun (compound nouns), and verb with an object as explained in the following sections:

1. Adjective with noun collocation

No.	Source Language	Target Language
65.	Hard labour	أشغال شاقة
66.	Net weight	الوزن الصافي

67.	Warm reception	استقبال حار
68.	Black market	سوق سوداء
69.	Raging storm	عاصفة هوجاء

Translators/interpreters do not encounter problems with translating these English collocations into Arabic due to the availability of identical TL collocations. Hence, translators/interpreters require only to search for their TL equivalent (Ghazal, 2008: 108). However, some English collocations do not have Arabic identical equivalents, which may cause problems for translators/interpreters. In this case, literal translation could solve this issue, as in the following example quoted from Mustafa (2010: 40):

No.	Source Language	Target Language	Literal Translation
70.	Bad need	حاجة ماسة	necessary need
71.	Busy day	يوم حافل	celebrating day

Some adjective-noun collocations describe bad inedible food as in:

No.	Source Language	Target Language
72.	Addled ages	بييض فاسد
73.	Bad milk	حليب فاسد
74.	Putrid meat	لحم فاسد
75.	Rancid better	زبدة فاسدة
76.	Rotten fruit	فاكهة فاسدة

It is obvious from the examples above, translators/interpreters may encounter a problem with translating these collocations, as Arabic does not have equivalent adjectives as in English. Therefore, the word فاسد could be a good equivalent for the English adjectives above. It could be more problematic when translating between Arabic and English, as the translator should choose the best equivalent for the Arabic adjective فاسد.

2. Noun with noun collocation

No.	Source Language	Target Language
77.	Brain drain	هجرة العقول
78.	cell nerve	خلية عصبية
79.	Status quo	الوضع الراهن
80.	Death sentence	حكم الاعدام
81.	Honey moon	شهر عسل

These collocations have Arabic equivalents, but with different grammatical structures. However, literal translation is not possible with these collocations as it is not acceptable to use “هجرة دماغية” and “قمر عسل” for “brain drain” and “honeymoon” respectively. Therefore, translators/interpreters should know the proper TL equivalent for these collocations and avoid literal translation as much as possible (Ghazal, 2008; Mustafa, 2010).

3. Verb with an adjective collocation

No.	Source Language	Target Language
82.	Solve an equation	يحل معادلة
83.	Write a message	يكتب رسالة
84.	Attend a lecture	يحضر محاضرة

There are no problems with translating/interpreting these English collocations into Arabic as Arabic has already identical equivalents (Mustafa: 2010: 39). However, translating the collocation of a verb followed by an object can cause problems for translators, particularly when the TL does not have identical collocational equivalents. The following examples are cited in Ghazala (2008):

No.	Source Language	Target Language	Literal Translation
85.	Tell the truth	يقول الحقيقة	To say the truth
86.	Teach a lesson	لقن درسا	To dictate a lesson
87.	Break the law	يخترق القانون	To penetrate law
88.	Work miracles	يجترح المعجزات	To achieve miracles

Obviously, translators/interpreters should work to find the correct TL collocations and avoid any literal translations that would cause unusual collocation and affect the cohesion of the translation or interpretation (Mustafa, 2010; Ghazal, 2008).

Moreover, culture specific collocation may cause difficulties for translators/interpreters, as the SL collocational elements are specific to SL culture, which may require providing TL cultural equivalents as in the following examples mentioned by Farghal and Shunnaq (1999: 122-123):

No.	Source Language	Target Language
89.	قضاء وقدر	fate
90.	قسمة ونصيب	destiny

Baker (1992: 49) presents an interesting example for the translation of an English collocation that includes a verb with an object and its equivalent in Arabic:

No.	Source Language	Target Language	Literal Translation
91.	To deliver a baby	يلد امرأة	to deliver a woman

Baker asserts that English tends to concentrate on the baby during the process of childbirth, while Arabic seems to focus on the woman. She illustrates that speaking about delivering a woman could be unacceptable in modern English (ibid.). Baker conceives the differences in collocational forms among languages “are not only a case of using different verb that collocate with a noun but, the different ways involved in describing an event which illustrates the influence of culture on the lexical choice within the collocations between languages” (Baker, 1992: 46).

Various research projects tackled the topic of collocation in English and Arabic translation/interpretation. Faris and Suha (2013: 1-16) perform a study to investigate the problems that occur during the translation of collocations from English into Arabic and their solutions. The study shows translating collocated structures from English into Arabic can be divided into three problems:

- a) The difficulty of generalisation, as an English item mainly collocates with only one word while in Arabic this is not the same, as in the following: “seize the opportunity” has its Arabic collocational equivalent as *يُنْتَهز الفرصة* while it is unacceptable to translate “seize power”, into *"يُنْتَهز السلطة"* but *"يستولي على السلطة"*. Thus, “seize” is not always *يُنْتَهز*. Therefore, translators cannot generalise the meaning of collocated words as they may differ from one collocation to another.
- b) The availability of multiple identical English collocations with the same meaning for only one Arabic collocation with single meaning as in “well and good”/ “hale and hearty”/ “right and proper”, which only have one Arabic equivalent (*صحة وعافية*). Hence, translators resorted to literal translation to translate the English collocations.
- c) Cultural differences between English and Arabic affect the translation of collocations, as these collocations are specifically related to the English culture and people, i.e. “as pretty as a picture” cannot be translated into *أجمل كالصورة* but it should be *أحلى من الصورة*.

Similarly, Bahumaid (2006) adopts a study to identify the problems of translating collocations from English into Arabic and to find the necessary solutions that may solve these problems. The results show that collocations cause difficulties not only for novices but even for experts during the rendering between English and Arabic which are due to the differences in lexical collocations between the two languages. Furthermore, collocations that are related to culture were the most problematic for the participants. On the other hand, Mohammed (2015) investigates the strategies that were applied by interpreters to interpret collocations in SI from English into Arabic. In this empirical study, a sample of 12 MA and PhD students of Translation and Interpreting between English and Arabic was observed. The results of this study reflect the subjects applied strategies to provide the required equivalents in target speech such as paraphrasing, partial omission, and a combination of other strategies.

Translating collocation is basically related to finding an identical TL collocational equivalent. However, finding an equivalent is not an easy task specifically when translating between far distant languages such as English and Arabic. Literal translation to SL collocation may distort the meaning in some cases while it could be an option when providing non collocational TL. Translators/ interpreters should have a clear background

for both SL and TL collocation systems in order to be able to render collocation, and to have the ability to apply several strategies such as finding the appropriate TL collocation, paraphrasing, or partial omission (Mohammed, 2015). Furthermore, translators/interpreters should fully understand the cultural differences in collocations used in both SL and TL so as not to produce meaningless collocational renderings.

2.1.12 Cultural Problems

As was discussed with the cultural problems in translation, converting the SL text into a TL text will be accompanied by challenges, especially when the SL and TT producers express their own beliefs, rituals, and experiences of the world in an uncommon way (Farghal and Almann, 2015: 93). Nida and Reyburn (1981: 2), on the other hand, consider the problems encountered due to differences in culture are the most effective problems for translators/interpreters which have caused the most profound misapprehension among readers/audience.

The differences in culture represent ecological, linguistic, ideological, social, and technical aspects that affect translator's performance during the translation process unless he/she has a competent knowledge of these cultural factors in both the SL and TL (Nida, 1964: 92; Newmark, 1988: 95). In other words, cultural differences between SL and TL pose more difficulties on the translator who has to examine the "deep/symbolic level of the SL in order to capture the cultural implications meant by the source author" (Al-Masri, 2004, cited in Farghal and Almann, 2015: 93). Conversely, Gile (1995) includes cultural differences within the PTs that cause problems for interpreters which require more processing capacity requirement and need extra attentional resources from interpreters.

In this study, the focus will be limited to two categories of cultural problems: problems related to interpreting culture specific terms and structures and terms and structures with religious content.

2.1.12.1 Culture Specific Terms and Structures

According to Baker (1992: 21), “culture specific term” refers to “any concept which is either abstract or concrete; it may relate to a religious belief, a social custom, or even a type of food”. An example of an abstract English concept which is notoriously difficult to translate into other languages is that expressed by the word “privacy”. This expression is only related to English culture and it is difficult to be found in other cultures. She presents another interesting example for translating a difficult cultural expression into other languages. The word Speaker of “the House of Commons”, is not found in many languages such as Russian, Chinese, and even Arabic. It is normally translated into “Chairman” by the Russians, which lacks the official duty of the Speaker of the House of Commons as an independent official who has the authority and order in Parliament (Baker, 1992: 21).

On the other hand, the problem of translating culture specific expressions becomes more complex when the same concept is expressed by different lexical systems in the SL and TL, which requires the translator to understand these systems properly and choose the accurate TL equivalent (Outratová, 2013: 9). Furthermore, Newmark (1988: 94) believes that “when a speech community focuses its attention to a particular topic (this is usually called ‘cultural focus’), it spawns a plethora of words to designate its special language or terminology”. This could be clearly noticed when English includes a lot of terms for cricket, French on wines and cheeses, Arabic has many words for camels, and Eskimo-Aleut has various expressions on snow.

In the same context, Al-Shawi (2012: 141) indicates that cultural origins have a crucial role in the process of translation. She concludes that “words which have various connotations in one language may not have the same emotive associations in another”. Thus, Hassan (2014) presents an interesting example of having one lexical item that expresses the differences between denotative and connotative meanings when one says “That animal with the big tail is a fox”. The word “fox” refers to a certain animal. But, when one says “This man is a fox”, the word “fox” does not refer to the animal. Instead, it refers to someone who is smart and good at deceiving people. So, the word “fox” in the second context signifies a different meaning from the former context (2014: 29-30). Hence, translators/interpreters should be careful with differences in culture in both the denotative and connotative meanings during

the process of translation/interpreting. Otherwise, their rendering will be culturally unacceptable.

Moreover, it is highly expected that these cultural differences which resulted from the different aspects of society may lead to linguistic gaps. Consequently, translators should bridge the linguistic and cultural gaps and meet TL assumptions in order to be successfully able to provide an appropriate cultural equivalent (Kussmaul, 1995: 70). In the same line, Abdelaal (2020: 122) comments on “culturally bound expressions” that result from the differences between languages in terms of culture. He states that “culturally bound terms are particular cultural elements that are bound to each specific language”. According to Harvey (2000, cited in Abdelaal, 2020: 122), culture-bound terms include concepts, institutions, and personnel which are specific to the SL culture. However, Kussmaul (1995) argues that most culture-bound terms can be easily detected due to their association with a specific language and the impossibility to translate them literally because it would distort the meaning (Kussmaul, 1995: 71).

Various classifications of cultural aspects that cause problems for translators/interpreters have been proposed (Newmark, 1988; Baker, 1992). Newmark (1988: 102) classifies foreign cultural words into five categories, which will be listed below with examples on the translation between English and Arabic.

- a) ecology: Arabic has a variety of words for winds, deserts, and animals. Regarding vocabulary on weather, English is influenced by cold wet weather, while Arabic weather is characterised by a hot dry climate. These differences are reflected in the vocabularies used in both languages. For example, Arabic has three expressions to describe the weather حار “hot”, دافئ “warm”, and بارد “cold”. English, on the other hand, has another item, “cool”, which has no equivalent in Arabic and consequently causes problems for translators (Aziz, 1982: 26).
- b) material culture: which includes houses, food, clothes, towns, transportations. For example, Arabic does not differentiate between black tea and white tea in terms of colour, which English does but, by stating tea alone or tea with milk (Aziz, 1981: 257).

- c) social culture (work and leisure): differences are enormous in social culture between English and Arabic, which are mainly related to kinship, marriage, love and sex, clothing, etc. Arabic differentiates between the brother of one's father عم and brother of one's mother خال , the sister of one's father عمه and the sister of one's mother خاله. However, English does not make such a distinction as there is one expression for the brother of the father and the brother of the mother which is "uncle" and one for the sister of the mother and the sister of the father, which is "aunt" (Ilyas, 1981: 258).
- d) organisations, customs, activities, habits: for example, English uses three forms of address: the first name of the person, the surname preceded by a title, and the title alone. Arabic, on the other hand, applies five forms, namely: first name, first name preceded by a term of kinship, generic use of kinship such as اخ (brother), عم (uncle), etc., the title alone, and kunya where the person is called the father /mother of his/her first born (Aziz, 1985: 144-5).
- e) Gestures and habits: differences between Arabic and English are enormous with regards to habits and gestures. For example, Arabic has only three meals a day إفطار "breakfast", غداء "lunch", and عشاء "dinner" while English has different meals at different times such as Brunch (a combination of breakfast and lunch eaten usually during the late morning) and snack (a small amount of food eaten between meals) (Muhammed, 1986: 99).

Researchers develop strategies to cope with culture bound expressions in translation/ interpreting. Al-Saidi (2013) adopts Baker's (1992: 76) translation strategies to cope with these expressions between SL and TL. He suggests five strategies that enable translators to render cultural expressions as:

- a) Full or cultural equivalent: this refers to translator's ability to provide a cultural equivalent in the TL that is similar in form and meaning to the SL expression. This kind of translation is considered by Baker (1992: 76) as the best solution for the problems arising from cultural differences between the SL and the TL during the process of translation. English and Arabic have huge cultural dissimilarities which make the translation between these two languages to be considered a difficult task for translators. Al-Saidi (2013: 17) provides the following examples which illustrate

the impossibility of providing a full cultural equivalent. However, they reflect the pragmatic effect on the cultural receiver. (Newmark, 1988, cited in Al-Saidi, 2013):

No.	Source Text	Meaning	Target Text
91.	Light-handed	Well-experienced thief	شخص خفيف اليد
92.	Bury one's head in the sand	Refuse obstinately to accept or face fact	يدفن رأسه بالرمال

b) Partial equivalent (applying an expression with the same meaning, but different form).

Sometimes translators can provide a TL equivalent with the same SL cultural term but with dissimilar form. Consider the following examples cited in Al-Saidi (2013: 31):

No.	Source Text	Target Text
93.	Heart and soul	قلبا وقالبا
94.	بيت القصيد	The bottom line

c) Borrowing SL cultural expression in translation. In translation, borrowing means using the same expression in the TL as in the SL because it is not found in the TL culture (Mohammed, 2016). Consider the following borrowed words between Arabic and English cited in Mohammed (2016: 5-6):

English words borrowed from Arabic	Meaning in Target Language	Arabic Words borrowed from English	Meaning in the Target Language
amber	عنبر	internet	انترنت
safari	سفاري	strategy	إستراتيجية
lemon	ليمون	virus	فيروس
algebra	علم الجبر	carbon	كاربون

d) Compensation strategy. This strategy is considered one of the most proper procedures that functionally interpret the culture bound expression to recompensate the loss of

meaning as much as possible (Baker, 1992: 86). Al-Saidi (2013: 32) presents an interesting example for using compensation strategy: during the translation of the English expression “owl” into Arabic "بوم" , the translation does not imply similar meaning in both cultures. In other words, it symbolises wisdom and a good omen in English, while in Arabic it includes a very negative connotation, as it refers to pessimism and a bad omen. Therefore, a translator can solve this cultural mismatching by replacing the word “owl” with a different bird name which refers to wisdom in Arabic as هدهد “hoopoe” (Ilyas, 1981: 259).

e) Translation by paraphrase. When the translator could not provide a TL equivalent for SL culturally specific expression, he/she might resort to the paraphrasing strategy to convert the meaning of the SL expression in the TL. Consider the following examples from Al-Saidi (2013: 33):

No.	Source Language	Target Language
95.	الطواف	going round al-Kaaba
96.	السعي	running between Safa and Marwa during Haj (pilgrimage)
97.	استخارة	supplication for seeking Allah's guidance

2.1.12.2 Terms and Structures with Religious Content

Translating terms and structures with religious content is considered one of the difficult types of translation, as it includes very sensitive genres such as words of God and prophetic sayings (Mehawesh and Sadeq, 2014). Therefore, even expert translators face challenges when translating religious content structures (Shehabat and Zeidanin, 2012). Elewa (2014: 25) describes the translation of religious structures as:

“It should be as accurate and precise as possible and must be in accord with sound belief. Therefore, translators must understand the original ST and transfer it faithfully, accurately, and integrally into the receptor language, without adding or omitting a single part of the original content.”

In the same line, Dickins et al. (2002: 178) believe:

The subject matter of religious texts implies the existence of a spiritual world that is not fictive, but has its own external realities and truths. The author is understood not to be free to create the world that animates the subject matter, but to be merely instrumental in exploring it.

Similarly, Nida (1984: 3-4) states that in translating religious texts the translator should inevitably leave the remarks of the SL text on the translation. Nida concludes that “the verbal utterances in many religious texts are often regarded as sacred and divinely inspired, and therefore they must be preserved as sentence units”.

Religious structures represent the most difficult aspects of cultures, as indicated by Larson (1984: 180):

“terms which deal with the religious aspects of a culture are usually the most difficult, both in analysis of the source vocabulary and in finding the best receptor language equivalence. The reason in that, these words are intangible and many of the practices are so automatic that the speakers of the language are not as conscious of the various aspects of meaning involved.”

Farghal (2012: 152) presents an example on the cultural effect of religious structures when the co-pilot of the Egypt Air fatal crash of flight No. 990 (1999) mentioned the Arabic theocentric expression *توكلت على الله* (I put trust in God). There was doubt whether he was calling upon God to help him solve a problem or was he crashing the plane on purpose. The American investigators claimed that “he was intent on crashing the plane”, they not being aware that the said expression cannot preface such a presumed evil act.

According to Al-Shawi and Mahadi (2012), the dominant culture and religion in the Arab world is Islam, while English is mainly dominated by Christian culture and religion. Therefore, the translator should master both cultures perfectly in order to overcome the challenges faced during the task. In other words, Newmark (1988: 162) considers that “the function of the translation of the Holy Koran and the Bible is a weapon for truth”. Arabs use fixed religious phrases in their daily life, which cause problems for translators as they do not have English equivalents in the TL. Consider the following examples from Dickins et al. (2002: 35):

No.	Source Text	Target Text	Back Translation	Explanation
98.	ان شاء الله	I hope	God's will	English has no religious equivalence for SL.
99.	السلام عليكم ورحمة الله وبركاته	Hi/Hello	Peace be and Allah's mercy and blessings upon you	English has no religious TL equivalence.
100.	انعم الله عليك	Thanks very much, or Oh, that's kind of you	Allah's grace upon you	No English religious equivalence.

Farghal and Almanna (2015) reflect that Arabic includes few religious abbreviations that should be translated appropriately into English. The method implies verbs characterising the most salient and/or important sounds in a phrase/sentence. Consider the following examples: هَلَّلَ for the act of uttering the sentence لا إله إلا الله "There is no god but God", كَبَّرَ for the phrase اللهُ أَكْبَرُ "God the greatest", and بِسْمِ for the phrase بِسْمِ اللهِ الرَّحْمَنِ الرَّحِيمِ "In the name of God, the most gracious, the most merciful", among a few others. Thus, an Arabic sentence like وَهَلَّلَ مِنْ الْفَرَاشِ عِنْدَمَا رَأَى ضَوْءَ النَّهَارِ needs to be rendered into "He rose out of bed and testified to the oneness of God when he observed the light of day" or "He rose out of bed and said 'There's no god but God' when he observed the light of day" Farghal and Almanna (2015: 29).

Alzubi (2013) divides the problems of translating the Noble Quran Verses in two types: the translation of form and the translation of meaning. He argued that the meaning is the biggest problem because the Quran is not just another book; it is a book that is always understood differently by the readers. Several researchers emphasized that translation of the meanings of noble Quran to other languages is impossible in the same accuracy as Arabic. Words could be translated literally, but it is difficult to translate what those words mean deeply. The translation will make the meaning weaker and sometimes it changes it. (Alzubi, 2013: 95).

In his study, Alzubi (2013) presents evidence for the validity of applying transliteration to overcome the difficulties during the translation of extracts from the Holy Quran and Muslims' unification. Various studies have been conducted on the topic of translating

linguistic and extralinguistic aspects of the Holy Quran. However, most of these studies confirm the difficulty of translating the Quranic verses into English (Al-Zou'bi, 1999; Abdul Jaleel and Larkey, 2003; Al-Fakhri, 2005; Assaf, 2005; Abed, 2006).

Khammyseh (2015) conducts an experiment for 23 MA students in translation at the University of Al-Yarmouk in Jordan to identify the problems that occur during the translation of Islamic expressions in religious occasions into English in order to find the causes behind these problems and to suggest solutions that can help to overcome these problems. The study shows that the problems encountered during the task were due to cultural voids between Arabic and English, the unavailability of SL Islamic equivalents in the TL, and the syntactic differences between the SL and the TL. The study suggests several reasons behind these problems, such as lack of cultural background of the TL, difficulties with mastering the structures of SL and TL, and the unavailability of particular references for these items.

Mehawesh and Sadeq (2014) research the problems of translating the Islamic religious expressions during the translation of Naguib Mahfouz's novel "The Beginning and the End". The study shows: a) to solve the problems of rendering these expressions, translators use several strategies such as paraphrasing, transliteration, and annotation", and b) to provide the accurate TL equivalent for the SL religious expressions, translators should have a wide knowledge in all cultural aspects of those religious expressions. Ibrahim (2019) explore the challenges that occur for the students of translation during the translation of religious words from Arabic into English. This study reflects the challenges were mostly due to the gaps in both SL and TL cultures, varieties of the styles between the two languages, and the absence of equivalents in English.

It is clear from the literature that translating culture specific terms and structures with religious content is problematic for translators. However, it is more problematic for simultaneous interpreters as they have to interpret these expressions and structures simultaneously without even having time to consult dictionaries or colleagues. Moreover, these difficulties are mainly cultural dissimilarities between English and Arabic which have a great effect on the vocabularies of each language, besides the domination of Islamic religion in Muslims' lives, which is clearly indicated in their daily usage of language. The translator's/interpreter's main goal is to provide a cultural equivalent for culture specific

expressions and religious structures. However, he/she does not always succeed in this endeavour because not all SL cultural expressions have a TL equivalent. This requires translators/interpreters to develop strategies that may help to overcome this problem.

2.1.13 Expertise in Interpreting

As long as this study is concerned with investigating the performance of expert interpreters and novices, it is important to shed light on the effect of expertise in interpreting. From a cognitive point of view, Ericsson (2007b: 3) argues that expertise “refers to the characteristics, skills and knowledge that distinguish experts from novices and less experienced people”. This could lead to define an expert as an individual who has received a wide knowledge in a particular field and who can make use of this knowledge to outperform other performers (Tiselius, 2013). However, Chi (2006) describes expertise within the scope of contrastive approach as any more skilled group can be considered the “experts” and a less skilled one the “novices”.

Expertise in interpreting deals with both the interpreting product (or output) and the interpreter’s processing, and can be achieved through countless hours of deliberate, goal-focused practice (Tiselius, 2015). Early research in interpreting focused on the differences between experienced interpreters and interpreters with less or no experience which was clearly shown in the work of Barik (1973, 1975). This scholar argues that major difference between highly experienced and interpreters without or with limited interpreting experience in TL segmentation as experienced interpreters are able to segment their renderings more effectively than unexperienced interpreters (Barik, 1975: 296).

In the same line, Goldman-Eisler (1972) compares the cognitive load in interpreting with other speech production tasks. She found that cognitive load increases during interpreting compared with other speech production tasks and that interpreters with high interpreting experience can deal with the cognitive load much better than those without interpreting experience. Other studies applied different investigative approaches reflect experts’ selectivity during SI task. In this context, Barik (1975) discovered that experts made greater

omission for unnecessary and redundant structures while novices and other bilingual groups resorted to omit important information that have a negative impact on the SI.

Similarly, Liu et al. (2004) study whether expert and novice interpreters were different in their selection of more important or less important information when circumstances limited the possibility of full interpretation. The findings of this study showed that expert interpreters reflected a greater ability in identifying the more essential meaning units from the more secondary ones. On the other hand, the students were less selective in interpreting the more or less important meaning units. Vik-Tuovinen (2006) found in her study that the less experienced interpreters focused more on the meaning of single words, whereas the expert interpreters focused on understanding the content. In the same line, Abuín (2012) in her study performed by three groups of participants with different levels of interpreter training and experience (beginner students, advanced students and interpreters) in a CI task from English into Spanish, found that as the interpreter's level increases, there is a shift from the use of the SL towards the use of the TL. Moreover, this study reflects that the expertise level in CI may have an effect on the interpreter's choice of language direction.

Other studies investigated the processing abilities of experts and novices during SI which showed that expert interpreters are more semantic based approach to information processing. These studies found that expert interpreters detected significantly more semantic errors while students focused on syntactic ones (Fabbro et al., 1991; Ilic, 1990). Similarly, the superiority of expert interpreters in semantic processing was also identified in lexical processing. In a study of word categorization, Bajo, Padilla and Padilla (2000) found that expert interpreters showed faster reaction than student interpreters and non-interpreters in categorizing nontypical words, they reflected more efficient access to the semantic information of words. Moreover, the same study approved that training in SI has an effect to develop this ability as student interpreters significantly improved this task after one year of training while non-interpreters did not do the same.

The use of strategies in interpreting is considered a part of expertise as various studies showed that expert interpreters used the strategies in interpreting differently from novices (Kalina, 1994b; Sunnari, 1995). In this regard, a high-quality interpreting performance is

accompanied with the use of strategies which is a crucial component of interpreting competence (Kalina 2000). In the same line, several studies showed that expert interpreters can apply strategies to cope with the difficulties of SI task such as Davidson (1992), and McDonald and Carpenter (1981) who found that expert interpreters are capable of processing larger chunks of input than the novices. This may give evidence to the findings of other studies which explain that expert interpreters often sound less literal in their renderings than novices (Barik, 1975; McDonald and Carpenter, 1981; Sunnari, 1995).

Other studies in interpreting showed the effect of expertise on the performance of interpreting such as Liu (2001) who compared the output of expert interpreters and second-year and first-year interpreting students. This researcher asked raters to listen to the output of SI without listening to the source speeches. The finding of this study showed that expert interpreters' renderings were considered much more meaningful, more coherent, and sounded smoother and more natural than the other two groups. In the same line, Sunnari (1995) found in her study that novice interpreters use segments in speech and use them arbitrarily which led to provide incoherent output. Similarly, Kirchhoff (1976/2002) found that the output of beginner interpreters includes pauses, disruptions, incoherent and high variations in speed while expert interpreters aimed at providing coherent steady output. The development of expertise in interpreting may not lead to automatic processes such as significantly decreases the requirements of processing capacity but in a better management of mental resources (Gile, 1995). That is to say, when expertise develops, comprehension and production efforts become less demanding. It is the efficient capacity management mechanism that contributes the most to the advancement of the skill of interpreting (Liu, 2013).

2.2 Strategies in Translation and Interpreting

The following sections will discuss the concept and the use of strategies in translation and interpreting studies.

2.2.1 Strategies in Translation

It is important to discuss the strategies in the field of translation as there has been much research conducted in this field. A strategy is broadly defined as a goal-oriented act that intends to solve a problem. Although various attempts have been made to find a comprehensive concept for strategy (Lorscher, 1991; Zabalbeascoa, 2000; Molina and Hurtado Albir, 2002; Chesterman, 2005; Gambier, 2008b; Gil-Bardají, 2003, 2009), defining the strategy varies from scholar to scholar, which leads to considerable discrepancy (Gil-Bardají, 2020: 541). In other words, expressions such as tactic, technique, procedure, plan, solution-type, shift, change, operation and operator have been applied to describe a strategy or reflect a similar meaning and function (Chesterman, 2005). The variety is not only limited to the definition of strategies but also in the classifications of strategies applied in translation. Chesterman's (1997) taxonomy is based on a textual approach, while Lörcher's (1991) classification relies on a cognitive approach.

According to Gutiérrez (2013: 28) states that "a cognitive approach does not only analyse the text or its external behaviour, but it takes into consideration what is behind the visible processes in translation". In other words, it studies the cognitive processes that make the translation possible. On the other hand, the textual approach to translation considers a text as an act of communication which occurs in a specific situational and cultural context. Hence, the translator should produce an equivalent TT taking into account the textual and the communicative aspects applied in the translation.

According to Zabalbeascoa (2000: 120), a strategy is "a specific pattern of behaviour aimed at solving a problem or attaining a goal". In translation, the main objective is to produce an appropriate TT according to TL norms. Therefore, Zabalbeascoa states that a strategy can be considered as "any conscious action(s) intended to enhance a translator's performance for a given task, especially in terms of efficiency and effectiveness". Zabalbeascoa (2000: 120) also distinguishes between "behavioural" strategies and "mental" act, where the former may refer to actions that can be recognised directly by the researcher, such as consulting a dictionary and writing a draft version. On the other hand, mental activity is related to thinking operations that can only be identified indirectly through certain indicators or symptoms such as hesitations and mumblings.

In contrast, Hurtado Albir (1996, 1999) regards a strategy as “a procedure (conscious or unconscious, verbal or nonverbal) used by the translator to solve problems that emerge when carrying out the translation process with a particular objective in mind.” Consequently, Lörscher (1991: 76) highlights the role of translation strategy to solve translation problems in his definition of strategy as a “potentially conscious procedure for solving a problem faced in translating a segment from one language into another.” However, Scott-Tennent et al. (2000: 108) look at a strategy as a means to provide translation solutions for potential translation problems which may be encountered at either micro- or macro-levels. Highlighting the importance of student’s recognition and the ability to solve these translation problems, Scott-Tennent et al. (2000: 108) define a translation strategy as “the steps, selected from a consciously known range of potential procedures, taken to solve a translation problem which has been consciously detected and resulting in a consciously applied solution.”

Molina and Hurtado Albir (2002: 508) classify the application of strategies into two categories: strategies used for comprehension such as identifying the main and secondary ideas and establishing conceptual relationships, and strategies for reformulation aspects such as paraphrasing and retranslating. On the other hand, these authors believe that strategies and techniques have various positions in the problem-solving process in which the strategies are considered as part of the process while techniques have effects on the result. Similarly, Chesterman (1997) divides strategies into comprehension strategies, which relate to the analysis of the ST, and production strategies that focus on the translator’s ability to use his/her linguistic and extralinguistic knowledge to produce an appropriate TT. Chesterman, thus, prefers the latter as it is a crucial part of the translator’s goal. Furthermore, Chesterman’s preference is incompatible with Jääskeläinen’s (1996) study, which shows that experts can apply more processing capacity for production strategies than novices.

Piotrowska (1998: 211) pinpoints the importance of translator’s awareness of the problems in his three pieces of advice for translators to measure their strategic competence. These are considered a crucial part in teaching methods of strategies and techniques: “(1) be aware of problems, (2) be sensitive to the demands of the source and target cultures and texts, and (3) be purpose and context-oriented”. Based on the fact that a strategy is a problem-solving process, and because problems can be classified into global (general) and local (specific) problems, Jääskeläinen (1993: 116, cited in Sun, 2013: 5409) and Chesterman (1997)

propose a clear distinction between global strategies (i.e. the translator's preferable modes of action) and local strategies (i.e. specific actions in relation to the translator's problem-solving and decision-making).

Jääskeläinen (1993) conceives local strategies belong to the translator's choice to overcome the problems encountered in translation. However, these strategies should correspond with the chosen global strategy, while global strategies might be dictated by the commissioner. Jääskeläinen notices that, compared with novices, expert translators prefer to frequently and consistently apply global strategies (see Sun, 2013: 5409). Jääskeläinen's views were supported by several scholars and researchers who intend to conduct experimental research using retrospective methods such as think-aloud protocols (TAPs). Consequently, the first empirical study was conducted in written translation by Kußmaul and Tirkkonen Condit (1995). In this study, think-aloud protocols (TAPs) were applied in a group of experimental studies that took place in Germany and Finland to examine the use of strategies in translation. The study shows that successful translators tend to apply strategies adequately, as their local and global decisions completely correspond in their decision-making process (Kußmaul and Tirkkonen Condit, 1995: 190).

2.2.2 Strategies in Interpreting

Since the 1960s, the topic of interpreting strategies has been the main interest of different scholars in the field of interpreting. Other terms are also used for strategies in interpreting, such as "coping tactics" (Gile, 1995) and "techniques" (Jones, 1998). Kirchhoff (1976: 43) points out that interpreting strategies are considered a practical objective to study the interpreting process. On the other hand, Gerver (1976: 173) indicates interpreters' recourse to the use of interpreting strategies when they face a high SL delivery speech rate. Seleskovitch (1978) suggests three "techniques of analysis" in order to get a clear idea of the ST that were reference to pre-existing knowledge, the interpreter's stance, and visualization. Brockhaus (1984, cited in Liontou, 2011: 38) names the main components of interpreting strategy which can be found in most definitions of a strategy:

- strategies are procedures carried out by an individual;
- strategies contain an element of planning;
- strategies aim at reaching certain goals; and

- strategies refer to a sequence of actions during the process of goal realization

Focusing on the process and the intentions that activate a strategy, Kohn (1990: 110) considers strategies as “processes that focus on the achievement of a specific goal, even though they might not be governed by any plan”. Gile (1995), on the other hand, discusses the interpreting problems and strategies that may be applied to solve these problems via his Efforts Model. In this model, conscious cognitive and non-automatic operations are involved in the process of interpreting. Gile (1995) presents a set of deliberate strategies or coping tactics to prevent or solve potential interpreting problems, as compared with spontaneous or unconscious reactions. Moreover, Gile (2009: 201) describes strategies as actions that were planned with particular objectives (i.e. conference preparation strategies) and “tactics” which refer to online decisions and actions.

According to Kohn and Kalina (1996), interpreting includes several complex processes that can only lead to appropriate target discourse if they are strategically controlled. Hence, these two authors consider interpreting as “a strategic discourse processing geared to the interlingual transfer of mental world modelling from a source discourse to a target discourse platform” (Kohn and Kalina, 1996: 132). They also claim that text strategies are not satisfactory to deal with the inherent problems in SI. However, applying old strategies and developing new ones is considered a main challenge for interpreters (Kohn and Kalina, 1996: 124-125). Furthermore, Kalina (2005) believes that the interpreter’s ability to select an appropriate strategy during the interpreting task is deemed a fundamental aspect that determines the interpreting quality under specific conditions.

In her study that compared the interpreting performance between two groups of advanced student interpreters and expert interpreters, Riccardi (1996, 1998) refers to two categories of interpreting strategies: knowledge-based strategies and skill-based strategies. The latter means “all those strategies governed by stored patterns of automatic responses whose application is triggered by the recognition of a well-known stimulus within the communicative event” (Riccardi, 2005: 760). Meanwhile, knowledge-based strategies are related to online actions as no automatic response can be identified or due to cognitive overload occurred during the interpreting task. Riccardi (2005) points out that strategies in SI are useful methods in both teaching and research because “they point to typical interpreting occurrences resulting from the SI process”. She adds that it is possible to group

strategies in a general list of interpreting strategies apart from the languages applied, or into specific language combination strategies, and take into consideration the strategies suggested for lexical and syntactic differences between both languages used (Riccardi, 2005: 765).

In the same line, Kader and Seubert (2015, cited in Li, 2015: 3) assert that interpreting strategies must be considered a crucial part of interpreter training due to the complexity of the interpreting process, which requires interpreters to cope with or avoid recurrent difficulties of comprehension and production. Hanoka Osamu (2002) suggests two general types of strategies that can be applied by interpreters during interpreting proper names, namely, decoding and encoding strategies. According to this author, decoding strategies can be classified into proactive (pre-emptive) strategies, which means that the interpreter can anticipate the topic of the text in advance, and reactive strategies that reflect the interpreter's choice to guess from the context when he/she encounters an unfamiliar name. Encoding strategies, on the other hand, involve three specific factors: the culture-specificity of a name, the figurative/non-figurative use, and the relationship of the name to the macro/ micro-structure of the text (Hanoka Osamu, 2002: 38).

2.2.2.1 Empirical Research of Interpreting Strategies

Various empirical studies have been conducted by scholars and researchers comparing interpreting groups at different levels on the use of strategies in conference interpreting (simultaneous and consecutive) (see Gran, 1998; Riccardi, 1998; Abuin, 2008; Arumí, 2012, among others). Ivanova (1999, 2000) applies a retrospective method to collect concrete data about the cognitive processes from expert and novice interpreters during the SI task. After analysing the retrospection protocol, this author divides subjects' reports into three groups: problems, monitoring observations, and strategies. The findings of this study indicate experts' ability to apply various interpreting strategies that help them to overcome and prevent the interpreting problems while it does not clearly appear in the analysis of students' renderings.

Abuín (2008) presents a comprehensive study of the problems encountered by a group of interpreters who have various levels of expertise during CI and the strategies applied to solve these problems. In this study, strategies were mainly classified into two groups:

reception phase strategies and production phase strategies in which problems can transfer from reception phase to production phase as interpreters develop their strategic competence, which increases interpreters' use of difference strategies (Abuín, 2008: 55-56).

Arumí (2012) conducted a pilot study to identify the problems encountered by two groups of students at two different stages of training and the strategies that were used. In this study, the strategies used by the subjects to overcome the difficulties have been classified. The results of this study show that novice interpreters reportedly applied more strategies than the advanced students, while advanced students used various types of strategies to solve the problems (Arumí, 2012: 330). There are few studies on the strategies of interpreting in the English-Arabic combination. However, Al-Khanji et al. (2000) conducted experimental research to identify the causes of problems encountered by expert interpreters and discuss the strategies that were applied by the subjects to compensate for difficult or incomprehensible input in the SI task from English into Arabic. The results of this experiment show that five kinds of compensatory strategies have been applied by the subjects.

Accordingly, these strategies and their frequency were as follows: skipping (31%), approximation (25%), filtering (21%), comprehension omissions (14%), and substitution (9%). On the other hand, Al-Salman and Al-Khanji (2000) study whether simultaneous interpreters support or refute the claim that interpreters prefer to render from the foreign language into their mother tongue. The study was based on a questionnaire which collects responses from of a sample of expert interpreters who participate in local and global meetings and on the analysis of actual performance of several expert interpreters who participate in SI tasks in English and Arabic. In this study, the following criteria were applied to measure subjects' performance: linguistic adequacy, strategic competence, and communication strategies. The findings of this study show that the combination of reception and production criteria which represents the strategic competence with the non-verbal characteristics reflect a clear tendency towards the interpretation from Arabic into English.

2.2.3 Typologies of Interpreting Strategies

The work on interpreting strategies, specifically in conference interpreting (simultaneous and consecutive), has attracted many scholars and researchers, as we noted earlier. Some of

them have focused on the classification of strategies (Gile, 1995; Riccardi, 1998; Kalina, 1996; Kalina and Kohn, 1998; Al-Salman and Al-Khanji, 2002), while others seem to study specific strategies such as compression (Sunnari, 1995), segmentation (Lee, 2007), or omission (Lee, 2013a). Regarding the first of these two groups, it does not seem easy to reach one classification of interpreting strategies, as it is difficult to differentiate between various types of strategies (Pöchhacker, 2004: 132; Li, 2015: 5). Therefore, researchers classify interpreting strategies based on their own purposes.

Pöchhacker (2004:132), in terms of strategic processing of interpreters, distinguishes between process-oriented strategies for coping with high-load-inducing input, and product-oriented strategies for communicating effectively with the target-language audience. The same author, on the other hand, classifies interpreting strategies into online strategies, which refer to the interpreter's reaction to problems encountered during the interpreting process, and offline strategies, which could be specific to translational cognitive processing such as preparing glossaries or marking up documents (Pöchhacker, 2004: 132-33).

Riccardi (2005) distinguishes between skill-based (those resulted from procedural knowledge and have been internalised and automatised by the interpreter) and knowledge-based strategies (their activation requires conscious analytical processes). Other scholars divide the interpreting strategies into different interpreting phases, such as Kalina (1998), who suggests two groups of strategies, comprehension strategies and production strategies. According to various interpreting phases, Gile (2009) proposes “coping tactics” in SI and classifies them into comprehension, prevention, and reformulation tactics. Donato (2003) presents three categories of strategies with their subcategories: comprehension, reformulation, and emergency strategies.

2.2.3.1 Gile's Coping Tactics

Gambier (2010: 412, cited in Li, 2015) distinguishes between a strategy and a tactic in which: “a strategy is a planned, explicit, and goal-oriented method used to achieve a certain objective. While a tactic is a set of locally-implemented steps that requires monitoring and adaptation to suit a given context. A strategy in translation refers to general concept, related to pre-translation and post-translation act, whereas a tactic is more specific which is related to particular techniques applied to achieve a translation objective (see Li, 2015: 6-7).

On the other hand, Gile (2009: 200) argues that a strategy is preparatory action with a desired medium-term or long-term effect, while a tactic can be defined as an online decision aiming at immediate or quasi-immediate effects.

According to Gile (2009), although various preparation strategies were taken into account by the interpreter, problems occur when interpreters' processing capacity requirement affect the interpreting process, and defects the interpreter's knowledge. This author asserts that even expert interpreters with long term experience regularly encounter these problems. Gile (2009) concludes that, as long as interpreting is considered "crisis management", and due to the existence of recurrent difficulties that have negative effects on comprehension and production, several tactics have been proposed to help interpreters cope with these difficulties (Gile, 2009: 191-201).

Gile (2009: 201) developed the following tactics that are based on the interpreting phases.

2.2.3.1.1 Comprehension Tactics

According to Gile (2009), interpreters develop the following tactics to cope with arising or possible comprehension problems which increase interpreters' processing capacity requirements:

- a) Delaying the response: interpreters encounter comprehension problems in word or sentence levels therefore, they develop several tactics as they delay response for few seconds in order to gain more time to process the information. Long delay time help interpreters get larger chunks of input to process, however it may cause memory defects because of the capacity limitation of short-term memory storage which consequently, lead to omission of important items of output (Gile, 2009). Barik (1973), on the other hand, argues that short lag may alleviate cognitive load but, in the same time it could cause errors in the interpreter's output as the interpreter may not be able to produce adequate TL rendering (Gerver, 1974). Gile (2009: 201) indicates that if the interpreter could solve the problem with delaying tactic, he/she can choose another tactic to cope with the problem.

- b) Relying on the context to reconstruct the segment: when interpreters face difficulties with hearing and understanding SL message properly, they may resort to reconstruct the TL in their mind using their linguistic and extralinguistic knowledge (Gile, 2009: 201). This tactic is considered a conscious process as it requires processing capacity in addition to, more attentional resources in order not to reach the saturation and/or individual deficits (ibid: 2009: 201).
- c) Trying to use the booth's help and consult a resource in the booth. In SI, two interpreters are usually available in the booth: the active interpreter and passive interpreter. The former's function is to receive the SL message and produce it into TL while the latter can do various tasks to help his/her colleague at the booth such as write down SL numbers, acronyms, and proper names to be interpreted appropriately. Moreover, interpreters can prepare the documents and highlight the important words before the process of interpreting (Gile, 2009: 202-4).

2.2.3.1.2 Preventive Tactics

Interpreters resort to preventive tactics when they think they encounter or are about to encounter problems that require more than their available processing capacity. These tactics include:

- a) Note taking: Interpreters resort to writing down names, acronyms, and numbers because, if they are not interpreted immediately, they may be lost as they must be conveyed completely without any change. This tactic may be considered a time-consuming tactic as writing is slow, which may lead to lose another item before and after those written down. However, the existence of a passive interpreter will help in writing down these items and assist the active interpreter (Gile, 2009: 204).
- b) Segmentation and unloading of short-term memory: Gile (2009) believes that interpreters resort to reformulating the speech into smaller segments earlier than the speaker's full speech delivery because SL and TL have different syntactic structures which may require more processing requirement and overload the interpreter's memory (Gile, 2009: 204). In this regard, Setton (1999) calls this strategy "chunking", which is considered by several authors as "a cornerstone of SI

technique, and involves producing sentence openings without waiting, or uttering neutral, non-committal material” (Setton, 1999: 50). On the other hand, Jones (2002) names this strategy the “salami technique”, which means simultaneous interpreters should produce their interpretations in short, simple sentences, in contrast with speaker’s long complicated sentences (Jones, 2002: 91). Moreover, Jones states “the salami technique is particularly useful when working from languages that have a natural tendency to long, complicated sentences, particularly those that can have Russian doll-like structures, with one subordinate clause fitting in another one, which in turn fits into a main clause (such as the so-called *Schachtelsätze* in German)” (Jones, 2002: 93).

Al-Qinai (2001) indicates that segmentation or chunking in translation relies on clear punctuation marks and on the divisions of the paragraph while in interpreting it relies on pauses and gaps in the SL message or on the working memory system of the interpreter. Thus, interpreters can make their TL sentence longer or shorter based on the SL and TL style and tempo. Moreover, differences in ST and TT reveal if the interpreter has divided the sentences (Jones, 2002) or applied more TL long complex sentences for short SL ones (Al-Qinai, 2001:14).

See the following example cited in Al-Qinai (2001: 14):

No	Source Text	Target Text before Segmentation	Target Text before Segmentation
101.	A passion for routine in administration, the sacrifice of flexibility to rule, delay in the making of decisions, and refusal to embark upon experiment, evils inherent in bureaucracy, according to Harold Laski, are undoubtedly to be found in bureaucratic bodies ----public and private-----but the efficiency and realizability	ويرى هارولد لاسكي ان العيوب المتأصلة في البيروقراطية وهي الولوج بالروتين الإداري والتضحية بالمرونة في سبيل التقيد بالأنظمة والتأخير في اتخاذ القرارات موجودة بلا أدنى شك في الهيئات البيروقراطية ورفض الخوض في التجارب العامة والخاصة على حد سواء. الا ان تحقيق الكفاءة والانجاز في عمليات أي مؤسسة كبرى ما هو الا نتاج لما يطلق عليه علماء الاجتماع لفظ البيروقراطية	According to Harold Laski, evils inherent in bureaucracy, i.e, “a passion for routine in administration, the sacrifice of flexibility to rule, delay in the making of decisions, and refusal to embark upon experiment, are undoubtedly to be found in bureaucratic bodies –public and private.

	desired in the operations of any large organization are also the product of what sociologists call bureaucracy.		Yet, the efficiency and realizability desired in the operations of any large organization are also the product of what sociologists call bureaucracy.
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- c) Changing the order of words in an enumeration. Gile (2009) conceives interpreting enumerations increases the processing capacity requirement and overloads short term memory due to the limitation of human working memory capacity. In support of this view, Shlesinger (2003) performs an experimental study on enumeration in SI to verify how many adjectives followed by nouns can be retained in the TL by the subjects who interpret from English into Hebrew. The study shows that a good number of subjects could not retain the adjectives during interpretation. Shlesinger (2003) concludes that the “dramatic loss of information (i.e. the omission of most of the items in the strings comprising the experimental materials) may be accounted for both as a by-product of working memory limitations and as the result of the subjects’ strategic decisions” (Shlesinger, 2003: 45).

In the same line, Gile (2009) argues that this tactic may help interpreters to deal with interpreting enumerations, which requires the interpreter to reformulate the last element first to free the memory from the information and then to move on to other segments. Moreover, Gile (2009: 206) adds that this tactic can be better applied with names or with other items which can be transferred more easily.

2.2.3.1.3 Reformulation Tactics

- a) Replacing a segment with a superordinate term or a more general speech segment. In SI, interpreters sometimes face difficulties in understanding a specific segment or when reformulating it in the TL, which requires providing a semi-equivalent segment or a less accurate expression in the case of word level, or creating a general segment in the case of clause or sentence (Gile, 2009: 206). Moreover, Gile (2009)

argues that, in this tactic, time will be preserved as not much processing capacity is required. However, it may cause a loss of information which may be recompensated at any time during the interpreting process (Gile, 2009: 206).

- b) Explaining or paraphrasing. When the interpreter is incapable of providing an appropriate TL segment for the SL segment, he/she resorts to explaining the intended meaning of the original segment (Li, 2015). Gile (2009) provides an example of the word “tableur” (spreadsheet), which was mentioned in a conference. It was interpreted into “the programme which defines rows and columns and allows calculations to be made”.

The following example quoted from Al-Qinai (1999: 238) illustrates the interpreter’s intrusive role in explanation when interpreting an English cultural term (Halloween).

No	Source Text	Target Text	Back Translation
102.	In Halloween children wear strange costumes	في عيد القديسين (وهو يشبه "الفرقيعان" في رمضان) يرتدي الأطفال ملابس غريبة	In Halloween (same as Gurgi'an in Ramadan) children usually wear strange costumes.

Paraphrasing is also considered one of the best strategies in interpreting cultural expressions as these items are specific to one culture which may not exist in other cultures (Baker, 2011). The following example quoted from Abdulaal (2020: 138) explains the paraphrasing tactic to render a culture specific segment:

No	Source Text	Target Text	Back Translation
103.	a bird in the hand	يغتتم الفرصة	seize the opportunity

In other instances, this tactic could be found in interpreting religious structures from Arabic into English when the interpreter is required to explain the expression to the TL audience in order to be understood. See the following example quoted from Al-Qinai (1999: 239). The term “السعي” refers to a well-known Islamic ceremony of running seven times between “Safa” and “Marwa” during the season of pilgrimage. In Islam, it would be sacrilegious to violate it by running less than seven times. Interpreters should include some of this background information in their interpreting, especially when their audience is non-Muslim.

No	Source Text	Target Text	Back Translation
104.	فإن لم يكمل المؤمن السعي بطل حجه	If a believer fails to complete al-Sa'y, (running between Safa and Marwa) his pilgrimage becomes null.	If a believer fails to complete al-Sa'y his pilgrimage null

In spite of its informational efficiency, this tactic has two drawbacks. Firstly, it requires time to explain or paraphrase, which consequently increase processing capacity. Secondly, it may draw the attention of delegates to the fact that the interpreter has no idea of the accurate TL equivalent item, which lowers his/her credibility (Gile, 2009: 207).

- c) Transcoding. Several scholars believe that two interpreting strategies are applied to recode SL into TL: meaning-based strategies and transcoding or calque strategies (to mention a few: Christoffels, 2004; Anderson, 1994; Fabbro and Gran, 1994; Massaro and Shlesinger, 1997). In contrast with meaning-based strategies which focus on comprehending the meaning of the SL and then expressing that meaning into the TL (Fabbro and Gran, 1994), “transcoding strategy involves the literal transposition of words or multi-word units” (Christoffels, 2004: 13). The interpreter resorts to transcoding when he/she fails to comprehend the general meaning of the ST and applies a word-for-word method by following the ST structure (Li, 2015: 175). However, this strategy strictly indicates providing the equivalents for word level in translation. Its role has to be limited, because TT interpretation would be relatively undesirable (Christoffels, 2004).

Furthermore, Paradis (1994, cited in Christoffels, 2004) suggests that the process of transcoding can occur at all language levels (phonology, morphology, syntax, and semantics) throughout the automatic use of rules. Kalina (1994, cited in Li, 2015: 180) argues that, due to the demanding task of SI with time pressure, interpreters are under the effect of transference of the SL signals and, therefore, they may apply the strategy of transcoding. On the other hand, Seleskovitch (1975) indicates that the transcoding strategy can be best applied with interpreting some lexical items (names and numbers) (see Kalina, 1998). However, other speech parts can be interpreted based on transferring sense into the

TL. In the same line, Lederer (2003) conceives that transcoding is used with words describing universal phenomena, such as physical and psychological attributes of human beings and phenomena of the natural world which are present in all languages.

It is impossible to get an adequate TT interpretation only through the application of the transcoding strategy, as Seleskovitch (1976) argues: “no translation, however literal, is ever entirely devoid of interpretation; no interpretation, however freed from the constraints of the original linguistic system, is ever entirely devoid of transcoding” (see Lederer, 2003: 420). This is compatible with Gile (2009: 208), who believes that this tactic is very efficient to handle lexical problems on the basis of “instant naturalization”. Gile (2009) concludes that many terms have been coined in the TL by experts based on naturalisation, which consequently are understood by the audience based only on their semantic meaning. In contrast, Al-Salman and Al-Khanji (2000) consider literal interpreting as one of the reduction strategies that has a negative effect on the communicative nature of the interpreting process.

In her MA thesis on culture in SI, Jaradat (2010) investigates the hypothesis of whether interpreters feel more comfortable interpreting into their native language. This study has identified strategies that were applied by three expert interpreters during the historical speech delivered by US president Obama on June 4th, 2009, in Egypt. The study includes the analysis of three different interpretations conducted by Arab interpreters who work for three popular Arabic TV stations: Al-Jazeera, Al-Arabiya, and Al-Masriya. The results of this study show that transcoding was considered as the most widely used strategy, followed by message abandonment. This researcher reflects that “the adoption of either strategy results in awkward and unidiomatic renditions that do not appeal to the ears of the recipients” (Jaradat, 2010: IV).

The use of the transcoding strategy is clearly indicated in rendering cultural segments from Arabic into English, specifically clichés and formulaic structures. In other words, it is traditionally familiar to use elaborate greetings and clichés in the opening and closing paragraphs in Arabic which are not related to the main theme (Darwish, 1995). See the following examples quoted from Darwish (1995, cited in Al-Qinai, 1999: 242):

No.	Source Text	Target Text (Transcoding)	Back Translation
105.	بعد التحية	After greeting	Dear...
106.	تحية طيبة	Good greeting	Dear...
107.	السلام عليكم ورحمة الله وبركاته	May peace and the blessings of Allah be upon you	Dear...
108.	وتفضلوا بقبول فائق الاحترام	Please accept our utmost respect	Best regards

It is clear that the use of this strategy can be useful with certain lexical problems (proper names, numbers, technical terms) which have correspondent names in most languages (Lederer 2003). However, applying this strategy with other segments of the text may affect the interpreter's performance and deteriorate the interpreting process specifically when trying to follow literal interpreting during the interpretation between distant languages, as in the combination of English and Arabic. In other words, applying transcoding in interpreting linguistic, syntactic, and cultural aspects between English and Arabic will lead to distorting the interpreting process.

2.2.3.2 Kalina's Categorisation of Interpreting Strategies

Kalina (1998) presents one of the important catalogues of interpreting strategies. In this taxonomy, Kalina identifies strategies that are crucially important for interpreters to deal with potential problems in SI. According to this author, strategies are divided into two main groups: comprehension strategies that help interpreters understand and comprehend the ST, and production strategies that assist interpreters to produce the TT. Below are the two groups with their subcategories (cited in Liantou, 2011: 41).

A) Comprehension Enhancing Strategies

1. Preparation strategies
2. Inference
3. Anticipation
4. Chunking

B) Target-Text Production Strategies

1. Source-text (ST) conditioned strategies

- a. Syntactic transformation
- b. Transcoding

2. Target-text conditioned strategies

- a. EVS
- b. Text compression
- c. Text expansion
- d. Stylistic strategies
- e. Presentation strategies

3. Emergency strategies

- a. Compression
- b. Selection
- c. Deletion
- d. Generalisation

In order to avoid replication of information, the following discussion is for the interpreting strategies that were not discussed in the previous classification.

2.2.3.2.1 Comprehension Enhancing Strategies

According to Kalina (1998), these strategies support the interpreter in understanding and comprehending the ST in order to produce appropriate TT. They include:

- *preparation strategies*: interpreters try to collect information about the participants of the communication event, the topics, and potential terminology that might be included during the interpreting event (Liontou, 2011).
- *inference*: refers to drawing expectations regarding the SL messages based on linguistic (textual) and extralinguistic (contextual) characteristics including the pragmatic dimension (Chernov, 2004: 57). On the other hand, Li (2015) states that “the interpreter recovers information that is forgotten, not comprehended or not heard by relying on the source speech context and his or her general

knowledge”. Thus, Chernov (2004) indicates that comprehension starts when the hearer is capable of making inference from the already delivered message. The process includes understanding the SL semantic components and relating them to:

- other semantic components and their configurations in the discourse (linguistic inference);
 - elements in her long-term memory or thesaurus of world knowledge (cognitive inference);
 - factors in the situational context of the discourse (deictic and situational inference);
 - the social role of the speaker (pragmatic inference) (Chernov, 2004: 60).
-
- *anticipation*: this strategy is applied when the interpreter predicts or foresees the following items of the discourse even before being uttered by the speaker (Liontou, 2011, Kirchoff, 1976). It is broadly used in SI due to the parallel development of both ST and TT that can be easily compared and contrasted, and the time pressure imposed on the interpreter which makes him/her use any available energy-saving tactic to keep up with the interpreting task (Gile, 1995). This strategy is highly recommended by Zanetti (1999: 90) especially when the interpreter works between languages that are syntactically different, though this author describes this strategy as an influential tool when interpreting between syntactically similar languages (see Li, 2015).

Wilss (1978), on the other hand, states that the mechanism of anticipation strategy is based on interpreter’s linguistic, semantic, contextual, situational, and thematic knowledge which may assist him/her to anticipate items during the SI process. In the combination of English and Arabic, Al-Salman and Al-Khanji (2002) investigate the strategies applied by expert interpreters during the SI task between English and Arabic. The study shows the strategy of anticipation was considered the second most frequently applied strategy after skipping. Moreover, in English into Arabic, the subjects were able to appropriately anticipate “culture-specific expressions” before the speaker had uttered them and predict “the appearance of expressions that frequently occur together in speech” (Al-Salman and Al-

Khanji, 2002: 618). The authors describe the anticipation strategy during SI as “these anticipations are something like set phrases which carry much of the informational content of the message.” The two authors consider the strategy of anticipation among the achievement strategies that reflect positive results when applied by interpreters (Al-Salman and Al-Khanji, 2002: 617).

2.2.3.2.2 Target-Text Production Strategies

Kalina (1998) lists the strategies used by interpreters during SI that are related to TL text production: ST conditioned strategies, TT conditioned strategies, emergency strategies, repair strategies, and global strategies.

a) Source-Text Conditioned Strategies

Gile (1995) considers syntactic difficulties as problems triggers that increase processing capacity requirement and impose cognitive pressure on the interpreters, hence these strategies are important to reduce the cognitive load and save time during the interpreting process. In contrast with transcoding, source-text conditioned strategies are used by interpreters specifically when interpreting between syntactically asymmetric languages that require rearrangement of ST elements either at sentence or text level (Liontou, 2011).

Li (2015: 175), on the other hand, asserts that during SI the interpreter focuses on expressing the meaning of the ST through applying different syntactic structures from those used in original texts, such as conversion of negative clauses into positive, verb phrases into noun phrases, subordinate clauses into main clauses. In other words, the interpreter ignores the structure of the ST and uses different structures that are based on meaning rather than literal rendering of ST elements. Liontou (2011: 41) argues that the main objective of these strategies is to “help the interpreter avoid ST interference and achieve the production of a natural sounding TT”.

b) Target-Text Conditioned Strategies

These strategies, according to Liontou (2011), include stylistic, EVS or time lag, text expansion, text compression, and presentation strategies. Text compression strategy is related to TT production strategies and was mentioned from the early stages of interpreting

research. Herbert (1952) argues that the duration of the interpreted text should not exceed 75% of the time of the original speech. This author suggests that the interpreter should speak less than the speaker as he took the possibility of omitting redundant words and repetitions into account. Al-Qinai (2001) comments on the use of the compression strategy, particularly in interpreting from Arabic into English: “compression can be employed when interpreters try to economize by shifting the SL input into shorter and briefer TL output, particularly when interpretation is conducted from Arabic into English” (Al-Qinai, 2001: 17). Consider the following examples that compress Arabic structures into English abbreviations (Al-Qinai, 2001: 18):

No.	Source Text	Target Text	Back Translation
109.	وحدة العناية المركزة	ICU	Intensive Care Unit
110.	معهد الكويت للأبحاث العلمية	KISR	Kuwait Institute for Scientific Research

The interpreter resorts to the TT expansion or addition strategy when he/she needs to clarify ambiguous aspects of SL speech which may include adding new information that is thought to be necessary for the communication act (Liontou, 2011). Li (2015) believes that the interpreter may add new information which was not originally included in the ST such as discourse markers and rhetorical phrases by which the audience can easily understand the TT. The next example is quoted from Al-Qinai (2001: 10):

No	Source Text	Target Text	Back Translation
111.	James ran into the kitchen for a sandwich	جرى جيمس الى داخل المطبخ ليحضر شطيرة	James ran inside the kitchen to bring a sandwich

Stylistic and presentation strategies are closely related to each other, as the former refers to interpreter’s choice of presenting the best ST equivalent while the latter indicates the “super-linguistic” presentation of these ST equivalents through applying intonation or pausing patterns (Liontou, 2011). The main objective of using these strategies is not to solve or avoid a problem, but to provide the most elegant or appropriate communicative message (ibid.: 41).

2.2.3.2.3 *Emergency Strategies*

Several scholars include a category of emergency strategies that can be applied by interpreters when they fail to successfully solve or avoid the problems during SI. Donato (2003: 108) conceives that the interpreter may apply emergency strategies when comprehension and production strategies are not successfully solved or to prevent the problems in SI. This author divides emergency strategies into transcoding, approximation, evasion, and substitution. Meanwhile, Straniero Sergio (2003, cited in Li, 2015: 184) pinpoints that, in media interpreting, when the interpreter faces difficulties of interpretation during the work with particular technical terms, hard accents, and fast speech delivery, he/she may apply emergency strategies such as summarisation, omission, generalisation, condensation, and neutralisation of figurative expressions. However, Liontou (2011) explains that at any moment during the process of SI, interpreters may resort to emergency strategies when the application of other strategies could be impossible and that is due to fatigue, noise, fast delivery, etc. These emergency strategies according to Liontou (2011) include: deleting and omitting the unnecessary information, generalisation, and simplifying the information for the TT audience. The emergency strategies include:

- deleting or omitting unnecessary information

This strategy is also called evasion (Donato, 2003), skipping (Al-Salman and Al-Khanji, 2000), omission (Pym, 2008; Gile, 2009) ellipsis (Li, 2015) which means “the interpreter, in particular under high time pressure or when facing interpreting difficulties, deletes superfluous or redundant expressions, repetitions, unimportant utterances, incomprehensible input, untranslatable elements, or message that is unacceptable in the target discourse” (Li, 2015: 174). Pym (2008) distinguishes between low-risk and high-risk omissions, arguing that the former is part of the interpreter’s time management process while the latter is the deliberate act adopted by the interpreter to make his/her rendition more accurate and coherent (Pym, 2008: 93).

This author stresses that omitting false starts, hesitations, and unnecessary repetitions are recommended as they provide better interpreting quality, which is the basic function of the interpreter’s service. Viaggio (2002: 239) also highlights that the interpreters should not interpret redundant, irrelevant, unclear, incomprehensible elements which may affect their performance. Gile (2009: 172), on the other hand, argues that using omission during SI may

lead to potential loss of information as important information may be deleted and consequently affect the interpreting process.

This strategy is still a controversial one as the interpreter cannot easily determine which information is redundant and unnecessary because speakers sometimes intend to use certain segments to achieve a specific aim. Furthermore, the audience may construct different meanings from the speech segments which would be ignored if the interpreter omits these segments.

- Generalising

This strategy is usually applied when interpreter cannot find an exact rendition for an SL item, therefore; he/she resorts to use a general that may express the SL meaning (Liontou, 2011). In the same line, Camayd-Freixas (2011) and Al-Khanji et al. (2000) observe that interpreters try to deliver the gist of a sentence rather than providing the accurate meaning of the SL item. Interpreters feel more comfortable to select general item for SL item as it is fast and does not affect the meaning. Moreover, the strategy of generalization is more frequently applied in interpreting. However, it can also be used in translation as well (Volansky et al., 2013).

2.2.3.2.4 *Repair Strategies*

The interpreter may make corrections when he/she discovers errors which were made during the interpreting process or when he/she may find that the strategies applied to overcome the difficulties do not work out and may lead to distortion of the original meaning (Li, 2015: 175). Kalina (1998) identifies various types of self-correction strategies which include replacing an already produced element with a more appropriate one, completion of an already produced segment with a more accurate one, and approximation when the interpreter provides a near TL equivalent for the SL required segment. Kalina (1998, cited in Dailidénaitė, 2009: 12) considers this strategy as “a strategy that offers more precision or synonyms in order to conceal its corrective nature”.

Consequently, Liontou (2011) claims that repair strategies include the self-correction strategy and no-correction strategy. The former refers to the interpreter’s decision to correct his/her mistakes during the interpreting process either implicitly or explicitly, while the

latter indicates that, in certain occasions, the interpreter decides not to correct the mistake because he/she thinks it will not harm the intended meaning of the SL message or correcting the mistake may affect the flow of interpreting and the interpreter's performance (Liontou, 2011: 42).

2.2.3.2.5 *Global Strategies*

In interpreting, scholars suggest global strategies, namely, monitoring of the output besides comprehension and production strategies to deal with the difficulties during the interpreting process, particularly time pressure, cognitive load, fast delivery rate, etc. (Kohn and Kalina, 1996; Riccardi, 2002; Gile, 2009). Although monitoring the comprehension and production aspects of interpreting is closely related to the repair strategies, Kalina (1998) prefers to use the monitoring strategy as the unique representation of global strategies. Monitoring has been highlighted by psychologists and interpreting researchers since the 1970s; Gerver (1971) is considered the first scholar who includes monitoring and self-corrections in his processing model. These strategies also were regarded as fundamental components of the SI process because, as Gerver (1971) states, self-correction is evidence that simultaneous interpreters are indeed monitoring their performance (cited in Pöchhacker, 2016: 119).

Dailidénaitè (2009: 11) describes the role of monitoring in SI which leads interpreters to identify errors in comprehension or production stages, and consequently affects the understanding of the TT receiver. If the errors are reflected in the interpreters' output, they can apply repair strategies such as self-correction, which is a fundamental part in the SL due to time pressure that prevents interpreters to search for other choices. The monitoring strategy is an important method during the interpreting task as it gives the opportunity for the interpreter to identify the errors that he/she commits during the task and leads to self-correct these errors and achieve the goal of the communication act.

However, monitoring could affect negatively on the process of interpreting due to two reasons: first, it is considered a time-consuming process in which the interpreter has to self-correct what has been processed earlier and this might affect the processing of another segment. Second, repetition of self-correction may reflect the interpreter's incompetence to perform the task and distorts recipients' confidence in the interpreter.

Kalina's (1998) classification of comprehension strategies does not include one of the important strategies that helps the interpreter to comprehend the ST, which is stalling. It aims at "buying time" (Setton, 1999) by delaying production or producing generic utterances that are not stated in the ST and does not provide new information in order to get more text segments to clarify the ambiguity (Li, 2015: 174). According to Setton (1999: 50), stalling is "a technique by which an interpreter can deal with long-distance dependencies, such as left-branching structures (especially verb-last SL syntax), by 'buying time' without subjecting her listeners to a long and uncomfortable silence". Gile (1995), based on Kirchoff's (1976) view, recommends the strategy of stalling by using neutral segments when the interpreter encounters problems of long, embedded clauses or comprehension problems that affect the process of interpreting.

This strategy may not express the intended meaning of the utterance because providing a neutral expression may affect the function of the SL segment and leads to producing an inaccurate TL equivalent. Moreover, delaying the production phase may result in the accumulation of information which may be vulnerable to loss due to the multiple tasks involved in SI.

2.2.3.3 Al-Salman and Al-Khanji's Model of Communication Strategies

Al-Salman and Al-Khanji (2002) propose a model in terms of communicative strategies when interpreters face difficulties with following up the speaker during the SI task. This model is originally applied during the SI task in the English and Arabic language pair. This model is based on the taxonomies of Tarone (1981), Bialystok (1984), and Al-Khanji (1996). It divides the strategies into two main groups: achievement strategies (which preserve the communication act) and reduction strategies (which distort the communication act). Each group includes four strategies that are applied by interpreters during the SI task. These strategies will be explained in the following sections.

2.2.3.3.1 Achievement Strategies

These strategies refer to successful management of the interpreter when he/she encounters communication problems with the speaker (Al-Salman and Al-Khanji, 2002). They can be divided into:

1. **Skipping:** the interpreter applies this strategy when he/she skips unnecessary repetition, redundant information, and unimportant utterances.
2. **Anticipation:** as stated earlier, this strategy means that the interpreter predicts the coming segment and prepares appropriate TL output sometimes even before the speaker has uttered the anticipated segment.
3. **Summarising:** this strategy is also called “compression”, “condensation”, and “filtering” (Li, 2015) by which the interpreter tries to achieve the economic means of the expression. In other words, the interpreter uses this strategy to cope with long sentences by reducing them to a minimum while preserving the meaning of the message.
4. **Approximation:** as stated earlier, this strategy is also called “attenuation”, which indicates the interpreter’s failure to provide an appropriate TL equivalent for the SL segment. Therefore, he/she resorts to a near equivalent term or a synonym (Li, 2015: 174).

2.2.3.3.2 Reduction Strategies

According to Al-Khanji et al. (2000), these strategies are considered as “attempts to avoid a communicative problem without being able to develop an alternative plan”. However, the interpreter fails to achieve the communicative goal by applying these strategies. In other words, these strategies reflect a negative effect on the interpreting process and the interpreter’s performance. Reduction strategies include:

1. **Message abandonment:** this means that the interpreter starts to interpret an SL segment, but suddenly makes short or long pauses which are due to problems he/she encounters during the interpreting processes and, consequently, this leads to

interpretation breakdown. The next example quoted from Al-Salman and Al-Khanji (2002: 619) shows the interpreter starts interpreting then suddenly stops:

No.	Source Text	Target Text	Back Translation
112.	“On this day in the desert of this great rift valley, the people of Jordan stepped out of the shadows of strife.”	في هذا اليوم	On this day

2. Literal interpretation: as stated earlier, this strategy means the interpreter interprets ST word for word without taking into account the extralinguistic aspects during the interpretation. See the following examples cited in Al-Salman and Al-Khanji (2002: 619) which illustrate that the interpreter has followed the SL literally with minor phonological and morphological adjustment.

No.	Source Text	Target Text
113.	the hard-stony soil	التربة الصعبة المتحجرة
114.	the tools of peace must be picked up	أدوات السلام يجب ان تلتقط
115.	you have made a great choice	قمتم باختيار كبير

3. Incomplete sentence strategy: the interpreter resorts to cutting the utterance into different pauses when he/she encounters a problem during the interpreting which leads to make a pause, leaving unfinished messages. In other words, when the interpreter consumes too much time to provide an accurate TL equivalent, but fails to do that before other segments need to be processed, which leads to leaving messages incompletely interpreted, as in the following examples cited in Al-Salman and Al-Khanji (2002: 619)

No	Source Text	Target Text	Back Translation
116.	signatures on a document did not mean that they automatically produce changes of such magnitude.	التوقيع على وثائق لا يعني تلقائيا ... الخ	The signature on the documents does not automatically mean

4. Code-switching: interpreters resort to this strategy when they shift from standard Arabic to informal colloquial Arabic. In other words, interpreters apply this strategy when they cannot cope with the interpreting difficulties. Therefore, they convert from demanding standard Arabic which requires monitoring to colloquial spontaneous Arabic (Al-Salman and Al-Khanji, 2002). The Arabic language system includes classical (standard) Arabic which interpreters are supposed to work into, and colloquial Arabic which is considered a spontaneous language that is acquired and does not need monitoring. Dickins et al. (2002: 167) explains the difference between English and Arabic language systems. They state that the Arabic standard system as compared with English is not the native language of any speaker. In other words, Arabic speakers have to learn the standard Arabic in order to speak it, while they acquire the dialect or the colloquial Arabic in the area in which they live.

Due to its original use with the English and Arabic combination during SI task, and that it fits the objectives of the pilot study in this research, this model has been applied in the pilot study to analyse novices' and experts' solutions of the potential problems during the SI tasks from English into Arabic and vice versa.

2.3 Concluding Marks of Chapter Three

1. Rendering proper names causes problems not only in interpreting but even in translation. In interpreting and due to the time pressure, interpreters face difficulties with storing proper names in their short-term memory until processing them into the TL, specifically in interpreting into one's native language. Besides, proper names are featured with a low redundancy element that cannot be modified or deleted during the interpreting process. In translation, on the other hand, the translators face difficulties to either render the name or just transliterate it in the TL. However, in both tasks translator/interpreter should develop strategies to render the proper names, which can be done through training courses.

2. Obviously, the interpretation of numbers causes problems for interpreters due to their high informativity and low predictability. However, interpreting numbers from English into Arabic poses extra pressure on interpreters because the number system in Arabic is characterised by gender differences, duality, and plurality. Meanwhile, English does not have such features and, therefore, interpreters are required to train on how to deal with numbers during the process of interpreting.

3. The syntactic differences in both English and Arabic lead the interpretation of passive structures to be considered a challenging task. Furthermore, in English, passive voice is commonly used in which the doer is the subject of the active sentence while the passive subject is the receiver of the action. Arabic, on the other hand, does not apply passive constructions widely, and if it is applied, there is no way to mention the subject. These differences are reflected on the interpreting process between English and Arabic, which result in problems for interpreters and require online strategies to avoid or solve these problems.

4. Another syntactic aspect that causes difficulties for interpreters is collocation structures. The components of collocation structures vary from SL to TL, which complicates the interpreter's task to find corresponding TL collocated equivalents as in the SL collocation elements. Furthermore, the difficulties are doubled when there is no TL equivalent for the SL collocation, which increases the interpreter's processing capacity requirement and poses cognitive pressure on him/her. Therefore, the interpreter should look for strategic methods to avoid or solve these problems such as word for word renderings, which could be the best option when it is impossible to find a TL equivalent collocation.

5. Culture has great effects on the language of any society, which can be reflected on acts of communication. Consequently, cultural problems are considered the most commonly encountered problems in translation, specifically in rendering between two culturally dissimilar languages such as English and Arabic. In order to interpret culture specific expressions, interpreters should master both the SL and TL culture, as in many cases there is no TL equivalent for the SL cultural expressions. Moreover, even if there is a TL equivalent expression, it is recommended to provide another expression that can be acceptable in the TL culture such as using euphemisms for English swearwords during the interpreting from English into Arabic. Any misunderstanding of culture specific expressions will lead to cultural shock and reflects a deficit in the interpreter's competence.

6. Another cultural aspect that results in problems for interpreters is interpreting structures with religious content. Arabs apply Islamic structure very commonly in their daily language. Many of these structures do not exist in English, which burdens the interpreter to find appropriate equivalents for these religious structures. Furthermore, misinterpretation of Quranic verses and prophetic sayings will deviate the intended meaning of these structures

and cause big problems as these texts are sacred messages. Therefore, interpreters should be careful when dealing with these structures.

7. Due to the demanding nature of the interpreting process, interpreters encounter different problems that require online strategies or tactics to solve them. These strategies are related to each stage of the interpreting process such as comprehension strategies and production strategies.

8. Comprehension strategies include inference, anticipation, chunking and preparation strategies which help interpreters cope with difficulties related to fast speech delivery, long sentences, condensed speech, etc.

9. When comprehension and production strategies do not solve the problems, interpreters resort to emergency strategies such as transcoding, approximation, evasion, etc., which could be the best option to overcome the problems.

10. Expert interpreters often apply repair and self-correction strategies which are a result of training courses and experience. These strategies help interpreters fix any mistake committed at any time of the interpreting process and make the TT appropriately expressed.

11. Scholars and interpreting researchers stress that interpreters' recourse to omitting redundant structures is a strategic way to cope with the difficulties related to the SL message and reduce the cognitive load on the interpreters.

12. The addition, expansion, or explanation strategy is a highly recommended strategy that clarifies ambiguous structures such as culture specific expressions and non-equivalent words such as interpreting cultural structures from Arabic into English. This strategy facilitates TT receivers to understand these structures as they are specific to the ST culture. However, the interpreter should be careful when using this strategy because he/she may use this strategy at the expense of other segments as more input will be waiting in the short-term memory to be processed.

13. Applying reduction strategies is a controversial issue as it is unclear that interpreters resort to message abandonment or incomplete sentences deliberately or as a result of the interpreter's competence.

14. Some strategies are specific to certain language pairs such as the application of code-switching strategy in interpreting from English into Arabic in which interpreters use colloquial Arabic rather than modern standard Arabic.

15. From the experimental studies conducted on strategies in interpreting, expert interpreters apply more interpreting strategies than other studying groups. Furthermore, the use of strategies becomes automatic, which keeps interpreters' processing capacity available to cope with other difficulties during the task and prevents cognitive load that may occur at any time of the interpreting process.

CHAPTER THREE

METHODOLOGY

3.1 Methodological Approach Applied in This Study

In this study, I have decided to apply mixed methods research (qualitative and quantitative) to analyse subjects' interpretations for the Rich Points based on the data collected from the subjects and from the analysis of their interpreting recordings. This analysis also sheds light on the problem identification based on the subjects' post-interpreting reports (process) and the number and the percentage of adequate, improvable, and inadequate renderings will be identified as well (product), in addition to identifying the strategies applied to solve the problems of rendering the Rich Points through triangulating both analyses; the process and the product. The number of subject reports that reflect the problems will be detected and the number and the percentage of strategies applied by the subjects will be compared between the experts and the novices.

To achieve the main and specific objectives of this study, an empirical study has been conducted by two groups of interpreters: experts and novices who participate in two SI tasks from English into Arabic and another task from Arabic into English. After obtaining the permission from the UAB Ethical Committee (see **Appendix 1**), and in order to validate the research instruments and methodology, a pilot study has been suggested for novice and expert interpreters.

3.2 Description of the Pilot Study

In the following sections, the context of the pilot study, subjects, materials, experiment, data collections, and data analysis for the pilot study will be discussed.

3.2.1 Context of the Pilot Study

A pilot study took place with a group of 30 female novice interpreters and an expert interpreter at the College of Languages at Princess Nourah Bint Abdul Rahman University, Kingdom of Saudi Arabia (KSA)². This study took place at this college because of the high number of subjects who volunteered to participate in this study during their summer training classes. Moreover, many contacts who are trainers and also members of teaching staff were available, and they kindly facilitated conducting this pilot study. This pilot study aimed at identifying the problems that were encountered by both groups, and the strategies applied to solve these problems during SI tasks from English into Arabic and vice versa. Both English and Arabic speeches were adapted to include Rich Points (PACTE, 2011), which refer to 20 various elements of lexical, syntactic, and cultural elements derived from Gile's (1995) taxonomy of "problem triggers" (see p. 91). On the other hand, the analysis of strategies that were applied to solve the problems is based on Al-Salman and Al-Khanji's (2009) model of interpreting strategies (see p. 147). Moreover, this study applied open and close ended questionnaires as instruments to collect qualitative data from the subjects (see **Appendix 2**).

The pilot study has been conducted at the interpreting lab of the Department of Translation in the College of Languages at Princess Nourah Bint Abdulrahman University, Kingdom of Saudi Arabia (KSA). All the subjects conducted the study at the same place in two different days. As for the novices, the experiment took place on July 10th, 2019, at 9 a.m. during the summer training course, which is a 60-hour course that is held annually at the Department of Translation, College of Languages, Princess Nourah University, KSA, to train the novices on Conference Interpreting. On the other hand, the expert interpreter performed the study in February 2020 in two different days as well. Regarding the distribution of the questionnaires, the instructor distributed the questionnaires personally and all the subjects filled in the questionnaires and conducted the SI tasks. All post-interpreting questionnaires and the interpreting recordings were handed physically to me by the instructor.

² See: <https://www.pnu.edu.sa/en/Faculties/Languages/pages/home.aspx>

3.2.2 Subjects of the Pilot Study

A sample of 30 female novice interpreters from Princess Nourah Bint Abdulrahman University participated in the task of SI from English into Arabic and from Arabic into English. Their A language is Arabic and their B language is English³. Among them, 8 subjects have French, and two others have Korean and German as their C languages. The novices were third year students at the Department of Translation and their ages range between 21 and 26. Only three of them have received training courses in interpreting: consecutive and on sight translation. No selection was carried out, as all the subjects took part in the study and all of the participants were taken into consideration. The same group participated in both tasks from English into Arabic and from Arabic into English.

On the other hand, an expert interpreter who was a lecturer of SI at Princess Nourah Bint Abdulrahman University participated in the pilot study. The participant has taught simultaneous and consecutive interpreting for almost nine years, in addition to being a translator at Al-Faisal International Academy and an interpreter for official governmental events like G20 Saudi Secretariat. This subject received training courses in interpreting: simultaneous, consecutive, and on sight translation. In addition to that, she was also a trainer for several interpreting courses. She has an MA in Conference Interpreting and Translation Studies from the University of Leeds, UK, and now she is a PhD student at the Autonomous University of Barcelona, Spain. Her age is 34, and the same participant conducted both interpreting tasks: English into Arabic and Arabic into English.

3.2.3 Materials Used for the Pilot Study

Both the English and Arabic speeches will be discussed below (**see the transcriptions of original speeches in Appendix 3**).

³ According to AIIC: A language is the interpreter's mother tongue whereas B language is a language in which the interpreter is perfectly fluent, but is not a mother tongue.

3.2.3.1 English Speech

The English speech was selected and adapted from <http://dx.doi.org/10.4236/ahs.2013.23021> to be simultaneously interpreted from English into Arabic and contains 1326 words. It was adapted to include a group of Rich Points (approximately 75 Rich Points which can be found in **Appendix 4**) which refer to 20 elements that may cause potential problems for interpreters and they were derived from Gile's (1995) "problem triggers". The topic of the English speech deals with "Emigration at the US". The speech was audio recorded by an English native speaker and the duration of the recording was about 11 minutes. The delivery speed rate of the English speech was 110-120 words per minute (WPM), which is considered a normal speed according to Schlesinger (2003).

3.2.3.2 Arabic Speech

As in English speech, the Arabic speech was selected and adapted from Wikipedia⁴ to include a group of Rich Points (approximately 75 Rich Points which can be found in **Appendix 4**) which refer to 20 elements that may cause potential problems for interpreters. They were derived from Gile's (1995) "problem triggers". The topic of the Arabic speech deals with "The Role of Woman in Society²", which was recorded by me as an Arabic native speaker with the total number of 1023 words. The duration of the recording was about approximately 11 minutes with an average of 110-120 WPM. The speech was simplified to suit the level of novices and avoids any difficulties that may affect the objectives of the study.

3.2.4 Experiment of the Pilot Study

In this study, 30 female novices and one expert interpreter participated in the SI tasks from English into Arabic and from Arabic into English. As described above, the original speeches were selected and adapted because I intended to insert a group of Rich Points that refer to 20 categories of potential problems in each speech. However, these speeches have reportedly turned up to be considered difficult, condensed, and long. Due to these aspects,

See: ⁴ <https://ar.wikipedia.org/wiki>

the original speeches of the main study were simplified and modified to fit the subjects' level (particularly the novices) and to properly achieve the objectives of the main study. Furthermore, the main purpose of the pilot study was to examine the validity of the methodology, data collection, and materials to be applied later in the study. On the other hand, the pilot study investigated the problems of interpreting the Rich Points that were inserted in these original speeches and the strategies applied to solve these problems during SI tasks from English into Arabic and vice versa. For similar reasons, I chose to prerecord the speeches in order to monitor the speed of delivery. The trainer informed the subjects the day before the experiment and explained to them what they should do in the experiment. However, they were not given any details about the topics of the speeches.



Image 1: Princess Nourah bintu Abdulrahman University, KSA.

The experiment was divided into two tasks: task 1 (English-Arabic) and task 2 (Arabic-English). The trainer repeated the instructions on how to conduct the experiment with all its details on the day of experiment. Before the beginning of both interpreting tasks, subjects were asked to fill in an initial questionnaire (Q1), asking for general information such as age, languages, experience, and training courses. Immediately afterwards, the subjects performed an English into Arabic SI task. Then, they filled in a second questionnaire (Q2), or post-interpreting questionnaire, which included 20 elements. From these elements, the

subjects had to: (a) select, from a list, the element(s) that the subjects had encountered a problem with during the task and (b) respond an open question about the main problems encountered during the tasks (Q3), whether they were listed or unlisted in the questionnaire.

The subjects completed the interpreting task individually in a lab, which is similar to a normal teaching classroom. However, it includes temporal booths with plastic walls used to separate each booth from the other. Inside each booth there is a chair, table, desktop computer, and a Sanako device that is used for interpreting. Subjects used the headphones with microphones during the interpreting tasks. The instructor controlled the interpreting tasks by monitoring the whole process through the same device set at her table at the main stage in the lab. Below, you can see photos below of the lab where the pilot study took place:



Image 2: Photos of the Interpreting Lab at the University of Princess Nourah Bint Abdulrahman, KSA.

On the second day of the study, the subjects conducted the second task, interpreting from Arabic into English, applying the same procedures as they did with the first task. Furthermore, the same procedures were applied by the expert interpreter who participated in the experiment. All audio recordings of students and the expert, in addition to their questionnaires, were collected and given in person to me.

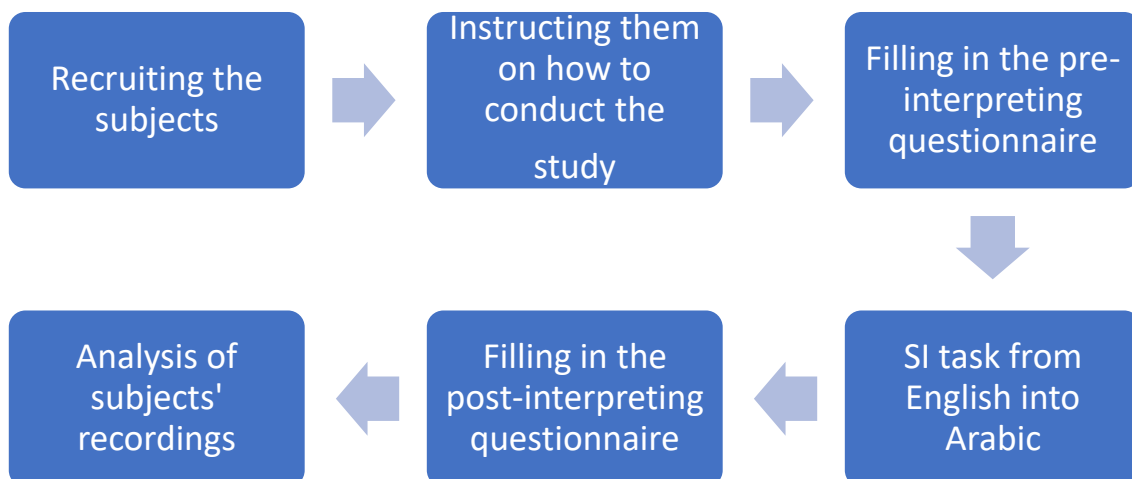


Image 3: Procedures adopted in the pilot study for novices and expert.

3.2.5 Tools and Data Collection of the Pilot Study

The following instruments have been applied in this study to collect the data:

- **Pre-interpreting questionnaire:** asks the subjects general information such as age, training courses, experience in SI, etc. This information is important to compare the profiles among the subjects, as it may have a significant effect on their performance.
- **Interpreting recordings:** this refers to subjects' interpreting recordings, which were 11 hours in duration. They reflect subjects' renderings for the Rich Points, whether they encountered problems or not, and the strategies that were applied to solve these problems.
- **Post-interpreting questionnaire:** includes a list of 20 elements which were adapted from Gile's (1995) taxonomy of problem triggers. From this taxonomy, lexical elements (proper names, numbers, acronyms, difficult expressions, enumerations), syntactic elements (passive voice, collocations, word order, grammatical ambiguity), and cultural elements (culture specific terms and structures, redundancy, cohesive connectors, coherence, irony, proverbs, idiomatic expressions, repetitions, terms and structures with religious content, colloquial

terms, and modality) were applied in this study as they potentially cause problems during the SI in the English and Arabic combination. These elements refer to the Rich Points with which the subjects might have potential problems during the SI tasks, particularly in the combination between English and Arabic.

Data collection in this study is based on my analysis of subjects' interpreting recordings, particularly regarding their interpretations of the Rich Points that refer to 20 linguistic elements. Through this analysis, the problems of rendering each rich point have been identified and counted. On the other hand, the analysis of subjects' reports (post-interpreting questionnaire Q2 and Q3), regarding the problems which were selected from a closed list, has been identified and counted as well.

3.2.6 Data Analysis of the Pilot Study

The analysis of the data collected in this study will include the problems encountered by the subjects with rendering the Rich Points and the solutions applied to solve these problems.

3.2.6.1 Problems

The analysis of problems in this study is based on comparing between the results of analysing subjects' interpreting recordings and the results of analysing their post-interpreting reports regarding the problems encountered during the SI tasks. This method can be used to verify if it is necessary to apply an additional instrument to collect more concrete data from the subjects in the study.

For each task, an Excel chart has been designed to tick the problems reported by the subjects based on the Q2 in the questionnaire. Furthermore, another chart has also been created to tick the problems that the subjects encountered based on my analysis of the subjects' recordings. Finally, a table of problems is made according to what the subjects consider the main problems that they encounter during the interpreting tasks, Q3 in the questionnaire (see a sample of the analysis sheet in **Appendix 5**). For both tasks, each rich point or potential problem was analysed individually with examples on how subjects rendered it, in addition to counting the number of subjects who encountered the problem based on

information collected from questionnaire Q2 and from the analysis of the subjects' recordings. A diagram has been designed for the interpretation of each element to show the differences in both analyses with the percentage and another one at the end of each task to illustrate the total differences between what the subjects reported and what the analysis of their recordings stated regarding the problems in both SI tasks.

As for problem identification, Krings (1986) proposes a model that is based on the analysis of think-aloud protocols to identify the problems in translation. This model focused on the cognitive processes that are involved during the translation process and includes the following problem indicators:

- primary indicators
 - explicit or implicit problem identification by the translator
 - use of aids (dictionaries and alike)
 - gaps in the target text
- secondary indicators
 - many equivalent translation choices
 - changes in the translated text
 - underlining of source text items
 - negative judgement of the translation by the translator (the translator is unsatisfied with the translation)
 - not enough attention to the function of the target text
 - unfilled pauses
 - paralingual indicators, like sighing, groaning, or laughter
 - primary equivalent association

Krings (1986) suggests that one primary or two (or more) secondary indicators can indicate a problem in translation. Although this model was originally intended to identify translation problems, it could also be applied to interpreting as well. Dimitrova and Tiselius (2014: 177-200) add other indicators that can be applied to interpreting, such as:

1. A pause within a sentence, immediately preceding or following after a word/expression mentioned in a problem report. Not included are sentence-initial pauses, which we assume

to be due to source sentence reading and planning, or sentence-final pauses, which we assume to be due to monitoring of the written target text.

2. Revisions (not including the correction of typos).
3. A combination of 1 and 2.

Krings' (1986) model is adapted and applied in this study because it fits the purpose of the pilot study as it was applied in SI by research in interpreting studies such as Birgitta and Tiselius (2014).

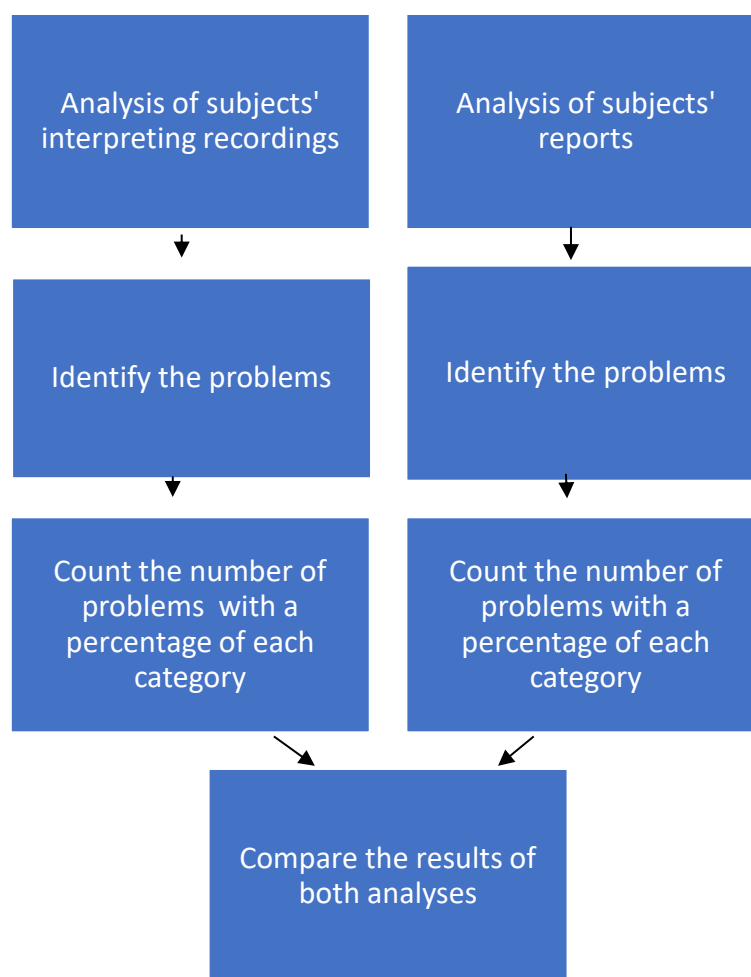


Image 4: Actions taken during the analysis of interpreting problems in the pilot study.

3.2.6.2 Subjects' Solutions to Solve the Problems in the Pilot Study

The main focus of the pilot study was to identify interpreting problems during the SI tasks. However, it seemed important to investigate subjects' solutions to solve or prevent these problems. The analysis of subjects' solutions basically relies on my analysis of subjects' interpreting recordings, particularly when they encountered the problems of rendering the Rich Points. This analysis was done because the questionnaire did not include a slot for the strategies that were applied during rendering each rich point. Hence, I identified and analysed subjects' solutions when rendering each rich point, which were either positive and maintained the communication act, or negative and changed the SL meaning and affected the interpreter's performance.

The analysis of subjects' solutions is based on Al-Salman and Al-Khanji's (2002) model of interpreting strategies in SI. This model was applied in this study because it was originally developed to investigate the strategic behaviour of interpreters during the interpretation between English and Arabic. Moreover, it perfectly fits the solutions that were applied by the subjects in this study (see description of the model on p.147).

3.2.6.2.1 Steps in the Analysis of Subjects' Solutions

As stated earlier, the analysis of subjects' solutions in this pilot study mainly relies on the analysis of their interpreting recordings, particularly the way they dealt with rendering the Rich Points. Below are the steps that have been considered during the analysis of subjects' solutions, along with an image that illustrates these steps.

- a) design an Excel chart which includes a column for subjects' codes and a row of 8 strategies that are adopted for this study,
- b) identify the strategies that are applied by the subjects with examples during each interpreting task,
- c) count the number of subjects that applied each strategy,
- d) describe the frequency of occurrences of the applied strategy as **High** if it is used by 10 subjects or more, or **Low** if it is applied by 9 subjects or fewer during the SI task, and
- e) calculate the percentage of the occurrences of the identified strategy.

The chart below explains the procedures of analysing the problems during both SI tasks.

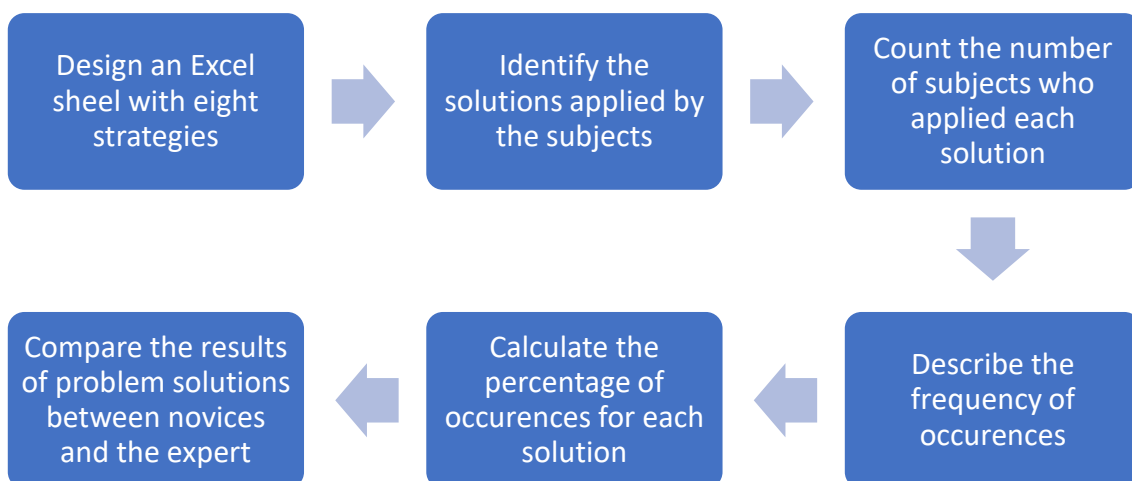


Image 5: Steps followed to analyse subjects' strategies to solve interpreting problems.

The aim of this pilot study is to examine the methodology, data collection, and materials used to analyse the interpretations of novice and expert interpreters during two SI tasks from English into Arabic and vice versa. The results of the pilot study reflect the importance of focusing on particular elements to be investigated in the main study as the subjects have encountered problems with all the elements. The pilot study shows the need to use product and process analyses to the data collected from subjects' post-interpreting reports and from the analysis of their renderings. Furthermore, due to subjects' unawareness of most of the problems encountered, the main study requires the use of extra instrument, in addition to questionnaires, to collect more concrete data from the subjects such as interviewing the subjects immediately after the SI task or having them answer post-task questions if interviewing them is impossible. Finally, the pilot study allowed me to modify the SL speeches in the main study to achieve the objective of the main study as the subjects complained from the length and the difficulties of the SL speeches.

3.3 The Study

Two groups of novice interpreters and another one of expert interpreters conducted the experimental study that constitutes the core of this research. Due to the pandemic limitations in 2020, it was difficult to get the same number of subjects who participated in the pilot study. It was also hard to collect them all to do the experiment online because they were not attending the online classes regularly. Hence, I was able to get two groups of novice participants; the first group is comprised of 9 fourth year students (at the Department of Translation at the Princess Noura Bint Abdulrahman University, KSA), and the second one is comprised of 8 fourth year students from the Department of Translation, College of Arts, University of Tikrit, Iraq. Regarding the group of experts, it was comprised of 5 staff interpreters who work at the Arabic division at the UN headquarters in New York, USA.

Product and process analyses have been applied in this study following Ericsson's (1991: 15) statement regarding the quality of interpreting to the investigation of expertise: "Although judges can reliably assess the superior quality of the product, it is difficult to analyze such products in order to identify the measurable aspects capturing the superior quality of the product." Furthermore, Hild and Tiselius (2011: 5) assert that "it is important to combine the assessment of quality with the investigation of the Cognitive processes underlying the production of an interpreting of a certain quality".

Subjects' renderings of the Rich Points which referred to lexical, syntactic, and cultural elements were measured and compared between the experts and novices (product analysis). The nature of inadequate renderings was identified, problem identification evidence was analysed based on the questionnaires and post interpreting questions (see sample of questionnaires and Post interpreting questions in **Appendices 6 and 7**), and the strategic behaviour of each group was studied and compared between the renderings of experts and novices. Furthermore, the effects of directionality on the interpretation of the Rich Points were identified based on the subjects' reports and on the analysis of their interpreting recordings.

The graph below shows the two groups of participants in the study.

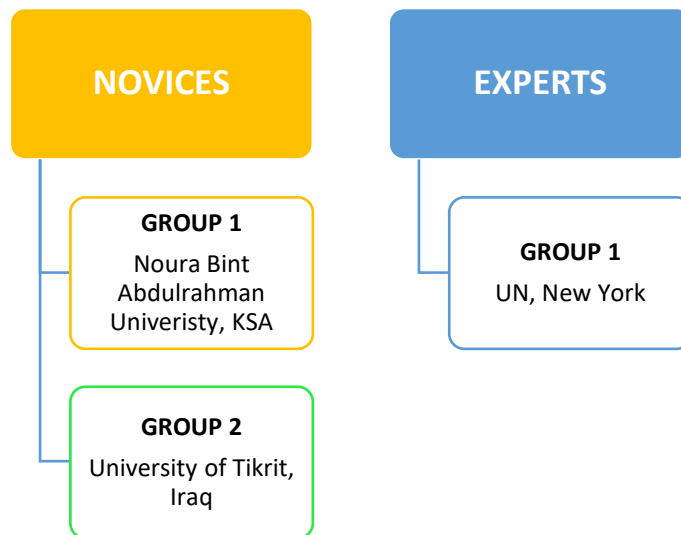


Image 6: participants of the study.

3.3.1 Experts' Study

The Experts' study includes the following aspects:

3.3.1.1 Context

Due to the breakout of COVID-19, all the physical activities in public and academic institutions, including the universities and other research centres, came to a halt. Hence, all the activities were suspended and started to be performed virtually. Therefore, experts had to conduct the experiment from home, as they started to work from their homes since the beginning of the pandemic in March, 2020. I sent the materials of the study by email to the experts with audio and written guidance on how to conduct the study (see **Appendix 8**). They conducted it individually as it was not possible to have them all perform the study together at the same time because they were overwhelmed by a lot of duties. The experts used headphones with microphones during the experiment and recorded their renderings on their computers, as working from home has forced them to create their own booths at home. Therefore, all interpreting equipment that would have helped them to achieve the task properly was unavailable.

They conducted the study during July 2020, and each task was conducted on a different day. I was in contact with all subjects by email and through social media, particularly WhatsApp,

to make sure that the experiment was conducted properly. All experts participated in the study by filling in pre- and post-interpreting questionnaires, and by applying a retrospective method (answering the post-interpreting questions). All audio recordings and the scanned copies of the questionnaires were sent to me by email during July and August 2020.

3.3.1.2 Subjects of Experts' Study

Recruiting expert interpreters to participate in the experiment was not an easy task, particularly during the time of pandemic, as all experts worked virtually from home and most people were worried about the development of the health situation all over the world, particularly in US, which was considered an epicentre of the virus during 2020. I first sent a call of participation for this study through a WhatsApp group in April, 2020, which was originally created for the UN division of Arabic interpreters at New York when one of my contacts added me to that group. Unfortunately, the response was weak for this call due to the abnormal situation of COVID-19.

In May 2020 Prof. Anna Gil-Bardají, co-director of this study, contacted the former Chief Interpreter of the Arabic section at the UN headquarters in New York, Hossam Fahr, who kindly reached the current chief interpreter at the Arabic section at UN headquarters in New York, Lena Ayyad. She finally agreed to distribute the call for participation for this study to the expert interpreters and she has also accepted to be one of the participants. During the same month, I received five names of those who agreed to participate in the study. Immediately, these volunteers were contacted and received the materials of the study but after 15 days only two subjects responded to the call while the third one apologised and nominated another subject instead because she was overwhelmed with heavy duties. The other two subjects did not reply to my multiple emails, which led me to personally contact other UN experts and, after multiple attempts, I finally succeeded to get the acceptance of two subjects to participate in this experiment.

Those who participated in this study were 5 expert interpreters who work as interpreters from English into Arabic and Arabic into English. Their participation was completely free of charge as they have agreed to volunteer in this experiment. Three subjects work at the

Arabic division at the UN headquarters in New York, USA, as conference interpreters while the other two were freelance interpreters who used to work at the UN headquarters and their work is mainly dedicated to public service rendering in New York, particularly as court and health interpreters.

All subjects are accredited interpreters and normally work from English into Arabic, but also from Arabic into English. Two of these subjects were females and three were males, and all of the subjects have Arabic as their A language while English is their B language. Furthermore, all the subjects have French as their C language. The ages of four subjects ranged between 41 and 46, while the fifth is 30 years old. Four subjects have received training certificates in public service interpreting: health and court interpreting. In addition, two other subjects have postgraduate degrees in conference interpreting: MA and diploma. Regarding the work experience in interpreting, three subjects have 15 to 17 years' experience in the field of conference interpreting while the other two have 7 to 10 years' work experience. As for their experience in SI, three subjects have 7 to 10 years while the other two have 15 to 17 years.

Table 1 describes the profiles of the expert interpreters.

S.	Age	Sex	A language	B language	C language	Training	Work experience	Experience in SI
P1	43	M	Arabic	English	French	Certified medical interpreter	15 years of experience in interpreting	10 years in SI
P2	43	F	Arabic	English	French	No	17 years	17 years
P3	46	M	Arabic	English	French	Medical and Court, interpreting certificates	7 years	7 years
P4	30	M	Arabic	English	French	MA and post graduate degree in conference	10 years	10 years

						interpreting and 6 months training		
P5	41	F	Arabic	English	French	BA and Diploma in interpreting and training	15 years	15 years

Table 1: Experts' profiles.

3.3.1.3 Experiment of Experts' Study

Two speeches were selected to be interpreted simultaneously from English into Arabic and from Arabic into English by a group of 5 expert interpreters. For the purpose of this study, the speeches have included Rich Points (PACTE, 2011) which represent six categories of lexical, syntactic, and cultural elements. These categories were adapted from Gile's (1995) taxonomy of "problem triggers". The total numbers of Rich Points were about 50 in each speech. As hypothesised by Shlesinger (1989), in order to facilitate interpreting, the selection of speeches in this study relied on familiarity, low incidence of difficult terminology, and a high degree of orality. The difficulty of the Rich Points was well considered, taking into consideration the subjects' level. The English speech has about 700 words with a duration of about 6 minutes, while Arabic speech includes 565 words with an audio duration of about 7 minutes. The speech delivery rate is 100-110 words per minute, which is considered acceptable (Gerver, 1971), with high quality of the sound recording. Moreover, the English speech was recorded by a native speaker, as well as the Arabic one, which was recorded by myself.

For approximately the 90 minutes of duration of each task, the subjects performed the experimental study, which includes filling in a pre-interpreting questionnaire (see Experts' Questionnaires in **Appendix 9**), asking the subjects general information such as: age, gender, their A, B, and C languages, training experience, and experience in SI. Immediately after that, they started the SI task from English into Arabic, where English is their B language and Arabic is their A language. From their home booths, the experts used the headsets with headphones and recorded their interpretations in the computers.

After the SI task, they filled in a post interpreting questionnaire asking the subjects if they encountered problems with rendering each rich point or not and the strategies applied to solve these problems, and as recommended by Ericsson and Simon (1987) in retrospective research, experts answered the post-interpreting questions by reading question by question with an audio recording in order to recall everything that occurred during the interpreting process, with the possibility of accessing the original transcript. Then, the subjects filled in another open-ended questionnaire asking them about the difficulties they faced and the strategies that were applied to solve or prevent the problems. As instructed earlier, on the second day of the study, experts conducted the second task, interpreting from Arabic into English with the same procedures conducted in the previous task. All the interpreting recordings and the scanned copies of questionnaires were sent individually by email to me.

3.3.1.4 Data Collection of the Study

The use of experiments in research studies is subject to various limitations, particularly in the field of interpreting. In other words, the introspective method (i.e. think-aloud protocols) is not applicable during the interpreting process because the subjects cannot reflect on their mental operations while they are interpreting at the same time. Hence, various experiments in the field of interpreting have applied retrospective methods instead, such as asking the subjects questions immediately after the interpreting task and having the subjects fill in a post-interpreting questionnaire (Kohn and Kalina, 1996; Jiménez Ivars, 1999; Ivanova, 2000; Abuín, 2007).

Due to the differences between the analysis of subjects' reports and the analysis of their interpreting recordings in the pilot study, another instrument will be added for data collection: having the subjects answer post-interpreting questions immediately after the interpreting task. In retrospective methods such as interviewing the subjects or, as in our case, having them answer post-interpreting questions, this was prompted by allowing the subjects to access the ST or even the TT (Ericsson and Simon, 1996). However, accessing subjects' interpretations may have negative effects on the subjects, as they could deduce the process from the product rather than recalling the process itself (Hind and Tiselius, 2011). Hence, the subjects were allowed to use the ST to recall the problematic aspects during the SI tasks and the strategies applied to solve them (Ivanova, 1999).

In this experiment, apart from pre- and post-interpreting questionnaires, a retrospective method (asking subjects post-interpreting questions) has been used, which includes three categories of questions:

- Feelings: general questions about subjects' feelings during the interpreting tasks such as stress when facing difficulties, subjects' awareness regarding the difficulties, and the direction they feel more comfortable during interpreting, from A into B or from B into A.
- Problems: subjects were asked whether they encountered problems with interpreting each rich point that refers to the six categories or not, and what their reaction was towards the difficulties they faced during the interpretation of each category.
- Strategies: subjects were asked about how they overcame the difficulties of rendering each category. In other words, did they apply strategies when they faced the problems with rendering each rich point? And how?

3.3.1.5 Data Analysis of the Study

The data analysis of this study will include both product-oriented and process-oriented analyses. In the product analysis, subjects' interpretations for the Rich Points will be analysed to identify the problems whereas their abilities to identify the problems through their post-interpreting reports and to use the strategies that solve or avoid the problems can be applied in process analysis.

3.3.1.5.1 Classifying and Analysing Subjects' Renderings (Product-Oriented Analysis)

Approximately 130 minutes of experts' renderings and their post-interpreting reflections were self-transcribed by myself. After the verbatim transcription of experts' recordings and their post-interpreting reflections, a Word document was created for each subject with a list of his/her renderings for the Rich Points that refer to each of the six categories (see a sample below).

Analysis sheet of P1 in English into Arabic SI task

Category	ST	TT	Strategy	Notes
Proper names	Mary David	ميري ديفيد		
	Egypt	مصر		
	United States	الولايات المتحدة		
	San Francisco	.....	Generalization	في كاليفورنيا
	Mexico	المكسيك		
	Honduras	الهندوراس		
	New York time	نيويورك تايمز		
	Washington post	واشنطن بوست		
	Wall Street	وول ستريت		
Numbers	Obama	اوباما		
	Thousands of years	الالاف السنون		
	220	220		
	3%	30 بالمئة		Incorrect rendering
	12 billion	12 مليار		
	1606	.....	Omission	
	89.4	89 مليون مهاجر	Approximation	
	2009	2018		
	2017	.....	Omission	
Passive voice	Tens of thousands	عشرات الالاف		
	Immigration was regarded as help	كانت الهجرة تساعد الدول النامية		
	Immigration is considered a problem	أصبح الامر مزعجا للدول		
	US was colonized by British	كانت مستعمرة إنكليزية سابقا		

Image 7: Sample of experts' analysis sheet.

This table explains the interpretation details of each rich point and the strategic behaviour of the subject if he/she reported it and confirmed it in the analysis of his/ her interpreting recording.

In order to analyse subjects' renderings for lexical, syntactic, and cultural elements during SI from English into Arabic and from Arabic into English, the analysis of this study is based on the work of MIRAS Research Group in the TIPp Project⁵ described by Orozco (2018) for measuring interpreters' renderings during court interpreting. In other words, the analysis is based on an interval scale to grade subjects' interpretations for the Rich Points that were

⁵ See: <http://grupsderecerca.uab.cat/miras>

designed for this study. This scale has three categories: A (Adequate), M (Improvable), and I (Inadequate).

An “**Adequate**” solution means that the content and the form of the message is conveyed “adequately”, i.e. precisely and accurately, by the interpreter. Possible subcategories for an adequate solution are:

- Established equivalent: the analysis of adequate rendering is based on dynamic equivalence (Nida, 1964) or functional equivalence (De Waard, 1986), which focuses on conveying the meaning of the SL into the TL. In other words, when the interpreter provides the meaning and the effect of the SL in the TL, it is considered an adequate rendering.
- Making some information implicit: when the interpreter clarifies or expresses the ST items or structures implicitly.
- Making some information explicit: when the interpreter clarifies or expresses the ST items or structures explicitly in the TL.

An “**Improvable**” solution means that the interpreter conveys the message and the basic communicative objective is reached, but not in a complete way, so the solution could be clearly improved either in content or in form. Possible subcategories for “Improvable” solutions are:

- Change of register
- Minor shift in meaning (compared to the ST)

An “**Inadequate**” solution means that there is a serious distortion of meaning in the message conveyed. This may be due to several possible error types, such as serious omissions or additions, shift in meaning, and so on, and that is why a second, descriptive scale was created to complement the data obtained from the first scale. Possible categories for “inadequate” solutions are:

- Omission of the rich point
- Not translated
- Addition of information

- Inadequate terminology
- Major shift in meaning (substantial distortion of meaning from that of the original message)
- Incomprehensible (message is not understandable, does not make sense)

After measuring each category, a table of with the total number of “Adequate”, “Improvable”, and “Inadequate” translations, as well as their percentages, was designed, in addition to a figure measuring subjects’ renderings (see a sample **below**).

Sample of measuring professionals’ renderings of one of English numbers into Arabic

No.	S.	Source Text	Target Text	Back translation	A.	M.	I.
2.	P1	number of immigrants in ... is 89.4 million	عدد المهاجرين في أمريكا 89 مليون	The number of immigrants is 89 million		✓	
	P2		هناك عددا هائلا من المهاجرين	There is a huge number of immigrants		✓	
	P3		ان عدد المهاجرين في أمريكا هو 89.4 مليون	The number of immigrants is 89.4 million	✓		
	P4		ان عدد المهاجرين في أمريكا هو 89.4 مليون	The number of immigrants is 89.4 million	✓		
	P5		المهاجرين في أمريكا عددهم هو 89.4 مليون	Immigrants... in America is 89.4 million	✓		

Image 8: Sample of analysing experts’ renderings of English number into Arabic.

Finally, general results of the measuring analysis have been derived and compared between experts and novices. Furthermore, all tables of measuring the experts’ renderings for the Rich Points are attached in the annex of this study.

3.3.1.5.2 Analysis of Subjects’ Reports (Process-Oriented Analysis)

In addition to studying the nature of inadequate renderings that the product analysis identifies, this study applied Ivanova’s (1999) model to analyse subjects’ reports (the questionnaire and the retrospective questions) regarding the problem identification evidence during the SI tasks. The data collected from the subjects’ post-interpreting questionnaires and their answers to the post task questions were treated together because both instruments

aim at collecting data from the subjects regarding the problems encountered and the strategies used to solve the problems. Hence, this model basically includes analysing subjects' reports according to:

1. *Comprehension*: includes the following subcategories:

- Perception (P): when interpreters report having problems with understanding or hearing the SL signal.
- Lexical access in the SL (L): when interpreters report failure to recall the meaning of the SL word or structure.
- Syntactic processing (Syn): when interpreters report having syntactic problems with SL recognition.
- Text integration (TC/integ): when interpreters report having problems with constructing coherent representation for SL chunks.
- Text comprehension (TC/bgkn): when interpreters having problems with comprehending the SL due to the absence of background knowledge.

2. *Translation (Tr.)*: refers to the problems in:

- TL retrieval (TLr): when interpreters report having problems with the availability of more than one TL rendition for a SL segment.
- Equivalent (eqv): when interpreters report having problems with finding an appropriate equivalent.

3. *Simultaneity of tasks (Sim)*: refers to:

- (SL. TL): when interpreters report their inability to cope with the high SL input in relation to their output rate.
- TL delays (Tr.del): when interpreters report delays in the production of the TL as a result of difficulties in translation.

4. *Monitoring (M): includes the problems with:*

- Translation (tr): interpreters report problems with accuracy of translation at the conceptual level.
- Inner speech monitoring (insp): interpreters report problems with matching the TL message against TL rules before production.
- Internal commentary (int.com): problems related to affective commentary to ST/ST speaker.
- Mood: interpreters report problems related to emotive self-evaluation of their translation.
- Time: translator’s awareness of the ST timing in relation to the TL production.
- ID: unanalysed problems.

Subjects’ reports have been classified accordingly in a table for each category which shows the number of reports of each subject and the percentage of the reports with each category (see a sample below).

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.del	Tr	insp	T	M	int	Id	
P1		1						2								3
P2		2														2
P3		5														5
P4						1										1
P5		1						1								2
Total		9				1		3								13

Image 9: Sample of experts’ reports regarding the problems of rendering collocations.

3.3.1.5.3 Strategies Applied in the Study

One of the main interests of this study is to investigate the strategic behaviour that the subjects have resorted to during the interpretation of the *Rich Points*. Hence, the second part of the experts’ analysis was dedicated to studying the strategies applied by the experts to overcome the difficulties imposed during both SI tasks. In the same sheets that were designed to analyse subjects’ renderings, there was a column for the strategies. The analysis of the strategies applied in this study includes examples of experts’ use of strategies, the type of strategy, and a back translation (my translation). Here there is an example:

No.	category	ST	S.	TT	Back translation	Strategy
...	Cultural terms	Full blooded American	P1	الامريكان	Americans	skipping

Moreover, examples from subjects' post-interpreting reflections and questionnaires regarding the use of strategies during the SI tasks were reported. The analysis of strategies is based on taxonomies proposed by Gile (1995), Kalina (1998), and Al-Salman and Al-Khanji (2002). These classifications are basically applied relying on subjects' use of interpreting strategies that were derived from the analysis of their interpreting recordings and the analysis of their post-interpreting reports. In this study, it is ticked as a strategic behaviour only when the subject reports the use of strategies and it is confirmed by my analysis of his/her interpreting recording. Hence, it has not been considered a strategy unless reported by the subject even if the analysis of his/her rendering shows the use of a strategy. At the end of analysing the strategies, a list of strategies applied by the subjects has been created at the end of the section to highlight the importance of applying these strategies to overcome or even avoid the difficulties in SI.

3.3.2 The Novices' Study

3.3.2.1 Context

The plan was to conduct the experiment for novices physically at the Department of Translation in the College of Languages at Princess Nourah Bint Abdulrahman University (KSA), where the pilot study was conducted in 2019. A colleague of mine, a PhD student at the UAB, has kindly agreed to supervise the experiment as she is an instructor at the same department. Due to the pandemic and the suspension of onsite classes, I had to wait until October 2020 with the hope that onsite classes would resume again, as there were multiple requests from the students. However, due to the increased number of infections, a decision from the Saudi educational authorities was taken to keep the online classes for the 2020-2021 academic year. Hence, other options were sought to find participants and conduct the experiment, but it was impossible because the novices did not attend the online classes regularly, as we were informed by their instructors.

The main option was to conduct the study during one of their online classes with the help of their instructor, and there were many attempts to make that happen. Unfortunately, all these attempts failed due to technical issues and students' unavailability. Promising them to get certificates of participation, 9 novices finally accepted to conduct the experiment individually from their homes (as the experts did). It was considered necessary to find more subjects in order to get more solid results and to achieve the objectives of the study properly. Therefore, there was only one option: to recruit novices from Iraq, as their studying system is relatively similar to that in Saudi Arabia with regard to the lecture hours in conference interpreting. Moreover, a contact was available there who is a member of staff at the Department of Translation, College of Arts, University of Tikrit, Iraq. After sending the call for participation through WhatsApp to this contact, 8 novice interpreters agreed to participate in the study individually from their homes.

In the end, a total of 17 novice interpreters have participated in the experiment; a group of 9 novices who are students at Princess Nourah Bint Abdulrahman University, KSA, and another group of 8 novices from the University of Tikrit, Iraq. All the subjects have been contacted either by email or by social media apps such as Facebook Messenger and WhatsApp. In January 2021, and immediately after accepting to participate in the study, the subjects received an audio and written guideline with detailed steps of how to conduct the experiment (see **Appendix 8**). Moreover, they received all the materials of the study by email, while the Saudi novices received them through a contact who is a staff member at Princess Nourah Bint Abdulrahman University. The novices in the University of Tikrit received the materials through WhatsApp as I created a group for the participants to follow up the progress of the experiment. After consulting all their questions, the novices conducted the study individually using headsets with microphones for listening and recorded their renderings in their computers.

The subjects conducted the experiment during January and February 2021 and each task, as planned, was performed on a different day. I was in touch with all the subjects by email and through social media to make sure that the experiment was conducted properly and to answer their questions, if any. All novices participated in the study by filling in pre- and post-interpreting questionnaires (see **Appendix 13**), simultaneously interpreting from

English into Arabic (see transcriptions of Novices' renderings in **Appendix 14**), and applying retrospective method (answering the post-interpreting questions) (see **Appendix 15**), and. As was instructed, the subjects conducted an Arabic into English SI task with the same procedures of the first task on the second day of the study. All the audio recordings and the scanned copies of the questionnaires were sent to me by email, FB messenger, and by WhatsApp.

3.3.2.2 Subjects in the Novices' Study

The total number of subjects was 17. Among them, 6 were males and 11 were females; their ages range between 23 and 27. They study two semesters of SI which is in total 100-120 hours and the same number with CI. Moreover, 6 subjects have done training courses in SI, 5 of them have one course which was 3 months in duration, and another one has two training courses for 6 months. The subjects have Arabic as their A language while English is their B language, and only one subject has Turkish as his C language. Novices' participation was completely free, but they would receive a certificate of participation in this study.

S.	age	Sex	A language	B language	C language	Training in SI
ST1	23	M	Arabic	English	None	None
ST2	23	M	Arabic	English	None	None
ST3	25	M	Arabic	English	None	None
ST4	25	M	Arabic	English	None	None
ST5	23	F	Arabic	English	None	None
ST6	27	F	Arabic	English	None	None
ST7	23	M	Arabic	English	None	None
ST8	23	M	Arabic	English	Turkish	None
ST9	23	F	Arabic	English	None	None
ST10	25	F	Arabic	English	None	None
ST11	23	F	Arabic	English	None	One course (3 months)
ST12	23	F	Arabic	English	None	On course (3 months)
ST13	23	F	Arabic	English	None	One course (3 months)
ST14	23	F	Arabic	English	None	Two courses (6 months)
ST15	22	F	Arabic	English	None	One course (three months)
ST16	22	F	Arabic	English	None	One course (three months)
ST17	24	F	Arabic	English	None	None

Table 2: Novices' profiles.

3.3.2.3 Experiment of Novice Interpreters in the Study

As mentioned earlier, the same speeches that were used in the pilot study were adapted and modified to be applied in the final study. Each speech then includes about 50 Rich Points that refer to lexical, syntactic, and cultural elements. As hypothesised by Shlesinger (1989), in order to facilitate interpreting, the selection of speeches in this study relied on familiarity, low incidence of difficult terminology, with a high degree of orality. The difficulty of the Rich Points was well considered, taking into account the novice subjects' level. The English speech has about 700 words with a duration of about 6 minutes, while the Arabic speech is 565 words with audio duration of about 7 minutes. The speech delivery rate is 100-110 words per minute which is considered acceptable (Gerver, 1971), with high quality of the sound recording. Both speeches were recorded by native speakers.

In this experiment, a retrospective method was applied, which was due to the big difference between novices' reports, in the pilot study, and the analysis of their interpreting recordings that required adding another method to obtain more concrete data regarding the interpretation of Rich Points. Furthermore, applying this method will help to understand the CP that shows evidence of problems and interpreters' solutions. As with experts, novices were instructed to fill in a pre-interpreting questionnaire asking them general information such as age, gender, A, B, and C languages, and training experience, as well as experience in SI. Immediately after that, they started the SI task from English into Arabic where English is their B language and Arabic is their A language.

Due to the pandemic, the novices conducted the experiment from their homes individually. They used headsets and recorded their interpretations on their computers. After the SI task, and as recommended by Ericsson and Simon (1987) in retrospective research, 9 novices answered the post-interpreting questions by reading question by question with audio recording while 8 subjects transcribed their answers in order to recall everything that occurred during the interpreting process with the possibility to access the original transcript. Then, novices filled in another open-ended questionnaire asking them questions on whether they encountered problems with rendering each rich point or not, and the strategies applied to solve each problem.

As instructed earlier, on the second day, the subjects conducted the second task, interpreting from Arabic into English with the same procedures as the previous task. All interpreting recordings, audio and transcribed copies of subjects' responses to the post-interpreting questions, and scanned copies of questionnaires were sent individually to me by email and by social media apps such as Facebook Messenger and WhatsApp.

The graph below illustrates the steps of conducting the experiment during the two SI tasks.

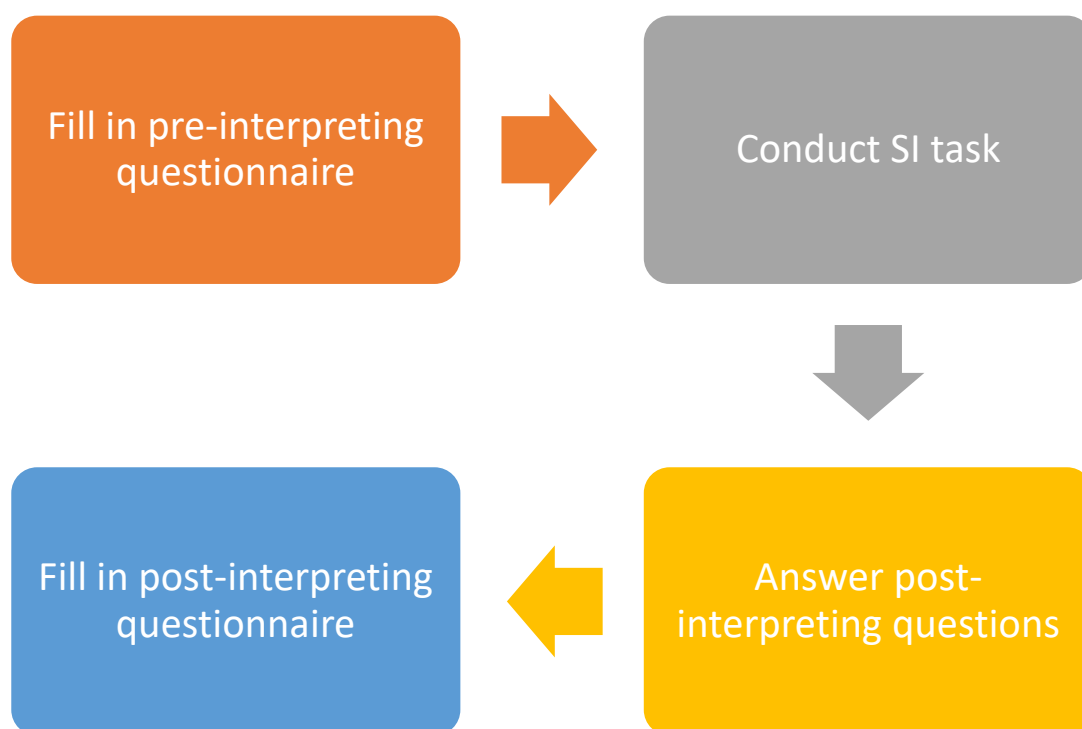


Image 10: Steps followed to conduct novices' study.

3.3.2.4 Data Analysis of Novices' Study

The data analysis of this study includes both product and processes analyses of novices' interpretations.

3.3.2.4.1 Analysis of Novices' Renderings (Product-Oriented Study)

Approximately 400 minutes of novices' renderings and their post-interpreting reflections were transcribed verbatim by myself. As with the experts' analysis, a Word sheet has been created for each subject with a list of his/her renderings for each rich point that refers to the six categories. Moreover, this sheet includes a column for strategies applied to solve the problems if identified in the analysis and confirmed in the subject's reports, and another column for notes regarding the interpretation of each subject such as hesitations, pauses, and unclear renderings (the analysis sheets can be seen in **Appendix 16**). See a sample below:

P. names	Mary David	ميري ديفيد		
	Egypt	مصر		
	United states	الولايات المتحدة		
	San Francisco	سان فرانسيسكو		
	Mexico	المكسيك		
	Honduras	ودول أمريكا الجنوبية	Generalization and affected the following segment by pauses	Strategy
	New York time	.....	
	Washington post	-----		
	Wall Street	-----		
	Obama	اوباما		
Numbers	Thousands of years	الآلاف السنين		
	220	هناك العديد من الملايين من الأشخاص حول العالم	generalization	Strategy
	3%	-----		
	12 billion	تحويل الملايين من الدولارات الى الدول التي هاجر	generalization	Strategy
	1606	.....	
	89.4	88 مليون مهاجر		
	2009	-----		
	2017	-----		
	Tens of thousands	عشرات الآلاف		

Image 11: Sample of the analysis sheet for the novice's study.

As performed in the experts' experiment, the analysis of novices' renderings for the Rich Points is based on the work of the MIRAS Research Group in the TIPp Project applied by Orozco (2018) when measuring interpreters' renderings to identify the problems and interpreters' solutions. A table of a total number of "Adequate", "Improvable", and "Inadequate" renderings and the percentage of each category was designed, in addition to a figure measuring subjects' renderings. At the end, general results of the measuring analysis have been derived and compared with those of experts (all tables of measuring the novices' renderings are attached in the Appendixes of this study).

3.3.2.4.2 Analysis of Novices' Reports (Process-Oriented Study)

As performed in the analysis of experts, after measuring the novices' renderings, the nature of inadequate renderings was analysed with examples taken from their renderings. Moreover, in order to study the novices' reports regarding the problem identification evidence during the SI tasks, Ivanova's (1999) model has been applied, which reflects a detailed explanation of the reasons behind the problems of rendering the Rich Points.

Novices' reports have been classified accordingly into a table that refers to each category. This table shows the number of reports that every subject has reported with the percentage of the reports for each category.

S.	Comprehension					Translation		Simultaneity		Monitoring					Total	
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.del	Tr	insp	T	M	int		Id
ST1																
ST2																
ST3															2	2
ST4												1				1
ST5															1	1
ST6	1							2								3
ST7																
ST8																
ST9	1							3				1				5
ST10	3							4								7
ST11															7	7
ST12	1														1	2
ST13															6	6
ST14								2								2
ST15	5											1				6
ST16	3							3								6
ST17	1															1
Total	15							14				1	2		17	49

Image 12: Sample of novices' reports regarding the problems of rendering Arabic numbers into English.

3.3.2.4.3 Analysis of Novices' Strategic Behaviour in the Study

In this section, an essential aspect of this study will be investigated, which is the interpreting strategies applied by the novices to overcome the difficulties imposed during both SI tasks. As performed with experts, in the same sheets that were designed to analyse subjects' renderings, there was a column for the strategies that were applied by the novices to overcome the difficulties of interpreting each rich point. In this analysis, only the reports that indicate the use of the strategy are considered strategic behaviour, while unintended use of strategies is not treated as strategic solution. Moreover, omitting the rich point from the TT is deemed an "inadequate" rendering and it is not considered strategic management because, according to the methodology of this study, all Rich Points include important information which should not be omitted. The analysis of interpreting strategies includes examples of subjects' use of strategies, subjects' reports regarding the use of the strategy, the type of strategy, and a back translation (my translation) (see a sample **below**).

No.	S.	Source Text	Target Text	Back Translation	Strategy
115.	ST10	علينا البر بها	.....	We do good for her	Skipping
	ST12		It is really important to respect women		generalization

Image 13: Sample of novices' use of interpreting strategies.

The analysis of subjects' interpreting strategies is based on taxonomies such as Gile (1995) and Kalina (1998). At the end of the strategic analysis, a list of strategies applied by the subjects has been created, which will be compared with experts' interpreting strategies.

CHAPTER FOUR

Analysis of the Pilot Study: Problems and Interpreters' Strategies in SI From English into Arabic and Vice Versa

4.1 Introduction

The structure of this chapter consists of two parts: the first part focuses on the analysis of the novices' pilot study, whereas the second part is dedicated to the analysis of the expert's pilot study. In terms of analysis, the pilot study investigates, on the one hand, the problems that were encountered by the subjects during the two SI tasks from English into Arabic and vice versa. It consists of the analysis of subjects' interpreting recordings and the analysis of their post-interpreting reports (questionnaire; Q2 and Q3). Each section concludes with a chart that illustrates the differences between the two analyses and, at the end of this part, a table and a chart will be created to show the results of analysing the interpreting problems.

On the other hand, the second part of the analysis is dedicated to studying subjects' solutions that were used to overcome or prevent the problems during the interpretation of the Rich Points, with examples from their renderings followed by my back translation. This part concludes with a table of all subjects' solutions that explains the results of analysing these solutions, in addition to a chart that shows the differences of these results. This chapter concludes with general observations from the novices and expert studies which outline the main framework of the proper study.

4.2 Analysis of Novices' Pilot Study

This part will include the analysis of novices' renderings of the Rich Points and the solutions applied to solve the problems during both SI tasks.

4.2.1 Problems Encountered During SI task from English into Arabic

The first step in the analysis consists of identifying the problems encountered by the subjects during the rendering of each category. Then, it compares the number and the percentage of inadequate renderings, for each category, based on the analysis of subjects' renderings and the analysis of their post-interpreting reports. Moreover, a table was created to list the main problems the subjects reportedly considered to be the main problems, whether listed or not listed in the questionnaire (Q3).

In the same line, subjects' solutions are identified with examples, and the number of times used and the percentage of applying each solution are counted based on the analysis of their reports and their interpreting recordings. The tables that include examples of subjects' renderings for the 20 categories can be found in **Appendix 9** Moreover, all the Figures that illustrate the quantitative differences between the analysis of subjects' interpreting recordings and their post-interpreting reports regarding the problems can be seen in **Appendix 10**.

4.2.1.1 Proper names

The SL speech contains a group of proper names which vary from names of persons like Marie David, Barack Obama, Hunter Holman, etc.; names of countries and cities like Mexico, El Salvador, Honduras, California, or San Francisco, and names of journals and newspapers like *The New York Times*, *The Washington Post*, or *The Wall Street*. The number of novices who reported having problems with rendering "Proper names" is 10, 33% of the total novices. In fact, the analysis of their interpreting recordings shows that 23 novices have provided inadequate renderings of the proper names during the SI task, 76% of the total number of subjects. Moreover, the analysis shows that the novices render well-known names adequately like "Obama", "Trump", "Mexico", or "America", but have problems with other unfamiliar names such as "Hunter Holman" and "Honduras".. The analysis shows that PEX10 rendered this name into "Alep Davee". On the other hand, in PCT15 resorted to reproduce the SL name "United States" in the TT *ينايتد ستيت*.

4.2.1.2 Numbers

The English speech includes a group of number segments which vary from one to multiple digits such as 5, 40, 21st, one fifth, 2009, 89.4 million, 1,750,000. According to the novices' reports and the analysis of their rendering recordings, the interpretation of numbers is considered one of the main problematic elements for the novices during the SI task. In other words, 28 subjects reported having problems with rendering numbers, which is 93% of the total subjects. Moreover, the analysis of their recordings shows that 29 novices faced the same problem, that is 96% of the total subjects, which reflects a very strong coincidence between the novices' reports and the analysis. Only one subject succeeded to interpret 50% of SL numbers. The analysis of novices' renderings shows that decimal numbers were obviously considered a problem for them, as none of the subjects were able to interpret "89.4 million" correctly.

The analysis shows that PCT4 provided an inappropriate number, "more than 40 million", when this subject rendered it into يوجد واحد مليون مهاجر ("There is one million"). Moreover, PCT6 rendered "The total immigrants in USA is 89.4 million" inadequately when this subject produced يبلغ عدد المهاجرين في اميركا 85 مليون ("The total number of immigrants in America is 85 million"). Appendix 9 includes a Figure that describes the differences between the analysis of novices' reports and the analysis of their recordings regarding the interpretation of numbers.

4.2.1.3 Acronyms

The English speech contains a group of acronyms which refers to countries (i.e. US, USA), organisations and agencies (IOM, USCIS), and others like ETC, CBP, AD and LLM. The analysis of subjects' post-interpreting questionnaire shows that 18 novices reported having problems with transferring the ST acronyms adequately. In other words, 60% of the total subjects have problems with rendering these segments into the TT. As in the interpretation of proper names, the novices do not have any problem with rendering familiar acronyms such as "US" and "USA", but they clearly could not render uncommon acronyms such as "CBP" and "LLM", as all the subjects have resorted to omitting these acronyms from the TT. The analysis shows PEX2 and PCT6 applied general terminology rather than expressing

the accurate equivalent when they interpreted “LLM” and “CBP” respectively into شهادة عليا في القانون و مسؤول في الحدود والكمارك (“a higher degree in Law” and “ officer from Borders and Customs Office”), which relatively reflects the same SL meaning.

4.2.1.4 Unknown Terms

There were several terms that may be considered difficult or unknown for the novices in the SL speech. These terms were “promulgated”, “commensurate”, “remuneration”, “leverage”, “myriad”, “desolate”, “freshman”, “dilemma”, “pruning shears”, “pole fruit picker”, “bumpy”, “hazardous”. Obviously, this problem differs from one subject to another based on their background knowledge. Therefore, it is hard to generalise the results of this comparison regarding “unknown terms” as a problem. The analysis shows that 25 novices (83% of the total number of subjects) reported having problems with “unknown terms” during the interpreting task. Furthermore, the analysis of their rendering recordings shows that 20 novices (66% of the subjects) encountered this problem.

4.2.1.5 Word Order

In terms of structure, two types of sentences are considered in English and Arabic: nominal and verbal. English only has verbal sentences, whereas Arabic has both verbal and nominal sentences. In other words, in Arabic a sentence can be formed with or without a verb, and the language can form what is called “nominal sentences”. In these sentences, either the verb (mainly “to be”) is implicit, or the subject of the explicated verb is placed at the beginning of the sentence, which is not the regular order of Arabic sentences, as they usually begin with a verb.

A nominal sentence requires no verb, which cannot be found in English, as the basic English structure is Subject + Verb + Object / Complement (SVO/C). On the other hand, the common Arabic verbal sentence structure is (V + S + O/C). Although the order is obviously different, the components are mainly the same as in English. The analysis shows that 10 novices (33% of the total number of subjects) mentioned that they faced a problem in interpreting the English structure because of the differences in word order between English and Arabic. However, the analysis of their recordings indicates that 21 novices (70% of the total subjects) encountered this problem during the SI task.

The analysis explains that PCT9 started the rendering with the object اميركا “America” which is not common in Arabic: أمريكا يطلق عليها ببلد المهاجرين (“America was called...”). Moreover, PEX8 begins the rendering of اللاجئين يهربون ليبحثوا عن (“The refugees flee to seek for better...”) rather than starting the sentence with the verb يهربون “they flee”.

4.2.1.6 Grammatical Ambiguity

Though this problem is relatively related to the previous one, the aim is to have the subjects specifically express other grammatical difficulties they faced during the interpreting task. As long as the “grammatical ambiguity” is considered as a problem, the speech includes the following “*other people say “well **they** are taking jobs away from Americans” and **they** feel pissed off”* the reference of the pronoun “they” is ambiguous, and it refers to the “immigrants” if the topic is about them, or to the “Americans”, as the last reference expressed in the sentence.

Only 8 novices (26% of the total novices) mentioned that they faced difficulties with grammatical ambiguity, while the analysis of their interpreting recordings reflects 19 subjects with difficulties, with 63% of the total subjects having encountered grammatical problems. The analysis shows that PCT4 used the particle لن (“will not”), which is used to negate the future in Arabic, while the ST applies “do not”, which is commonly used with present. Moreover, PCT9 rendered اتمنى (“ask”), which is unclear to whom the verb اتمنى refers whether to, either the speaker or to the friends.

4.2.1.7 Passive Voice

The English speech has several passive structures such as “its citizens were made up of immigrants”, “America is known as a melting pot”, “US was colonized by the British, America has been made very strong by immigration”, etc.

Strangely, only 4 novices (13% of the total subjects) reported that they faced the problem of passivity during the interpreting task. However, the analysis of the novices’ recordings shows that 24 novices (88% of the total subjects) faced difficulties with rendering passive structures. The analysis reflects that PCT1 interpreted “America has been made very strong by immigration” into صنعت أمريكا بقوة , which should be زاد المهاجرون اميركا قوة as long as the

agent is mentioned. Furthermore, PCT6 rendered, “terminology was recently changed by the government”, into وهذا الاسم غيروه, which is a more colloquial Arabic structure without an agent. The appropriate rendition could be: غيرت الحكومة هذه التسمية مؤخرا

4.2.1.8 Collocations

The English speech includes several collocations like “paid a visit”, “pretty much economic”, “deleterious effect”, “full-blooded American”, “exert efforts”, “pretty tough task”, “a myriad of people”, or “hard feelings”. According to novices’ reports in Q2, only 8 novices (26% of the total subjects) encountered a problem with interpreting collocations into Arabic, while the analysis of their renderings reflects 15 novices (50%) faced this problem. The analysis reflects that PCT1 interpreted “exert efforts” into ينفق الجهد (“spend efforts”), which has no meaning in Arabic unless if rendered as يبذل جهودا. Furthermore, PEX1 produced incorrect interpreting for, “Full-blooded Americans”, when this subject provided a literal translation: الدماء الكثيرة في اميركا (“a lot of blood in America”). However, this collocation should be rendered as السكان الاميركيون الاصليون.

4.2.1.9 Enumerations

Enumerations are high-density speech segments which can cause a high load on interpreters’ short-term memory (Gile, 2009: 205). Gile (2009: 123) states that enumerations are “dense, as they consist of information elements put next to each other without grammatical or other words or word groups of low information density in-between”.

The English speech has examples of enumeration such as “We have a lot of British, a lot of Irish, a lot of Italians, a lot of Germans, a lot of Russians, a lot of Chinese” or “The borders are in some very desolate, bumpy, and hazardous desert areas”. The number of novices who reportedly had problems with rendering these enumerations is 12 (40% of the total subjects). Moreover, the analysis of their interpreting recordings identified the same number of subjects who encountered problems with enumerated structures.

4.2.1.10 Modality

Several modal verbs were included in the English speech which refer to different meanings in the TT such as “crises in these countries **would** lead people to flee, they **could** do jobs that nobody wants to do, they are taking jobs away from Americans and **must** leave, **should** the undocumented immigrants now stay or **should** they go?”, etc. The analysis of subjects’ reports reflects 2 novices (6% of the total subjects) encountered problems with rendering modal verbs, while the analysis of their interpreting recordings shows 8 subjects (26%) had problems with these elements.

4.2.1.11 Cohesive Connectors

These are cohesive devices signalling logical relations between parts of the English speech. Grammatically, they can be connectives (“but”), subordinators (“because”), adverbial connectors (“however”), and other more or less conventionalised expressions like “the question is now”, “Let me tell you this, the problem is”, “the reason behind that is”, etc. The number of novices who reported having problems with interpreting cohesive devices during the interpreting task is 9 (30% of the total subjects). However, the analysis of their interpreting recordings reflects that 16 subjects (53% of the novices) could not render these connectors adequately. Most of the subjects resorted to omitting these connectors from their TT and others misinterpreted them. The analysis shows that PCT15 interpreted “unfortunately” into لكن (“but”) while PEX5 rendered “which” into و (“and”), which are not adequate renderings as they do not reflect the meanings of the ST segments.

4.2.1.12 Colloquial Terms

The English speech contains several colloquial expressions such as “gonna”, “wanna”, “damn”, “hell”, etc. According to subjects’ reports, 11 novices (33% of the total subjects) had problems with rendering these expressions, while the analysis of their interpreting recordings reflects only 6 novices (20% of the total novices) encountered problems, as they mainly resorted to deleting these expressions from the TT.. The analysis reflects that PCT15 resorted to rendering the colloquial term “gonna” into colloquial Arabic راح (“will talk”).

Moreover, PCT17 skipped the colloquial term “wanna” and interpreted the rest of the sentence *انا اقول ان المهاجرين يساهمون* (“I say that the immigrants contribute ...”).

4.2.1.13 Coherence

While cohesion refers to formal surface relations between the sentences that compose the text, coherence refers to the underlying relations that hold between the sentences which make up the text. It establishes their relevance to the central thought of the text (Beaugrande, 1981). Coherence in translation is much more difficult to sustain than coherence in the SL simply because translators have fewer means to know that their message is as clear as it was originally intended or not. Therefore, translators/interpreters must make their patterns of coherence much more explicit and carefully planned (Laith, 2015). According to novices’ reports, 12 subjects (40% of the total number of subjects) produced incoherent TT during the interpreting task, while the analysis of their recordings shows that 14 novices (46% of the novices) encountered this problem.

4.2.1.14 Repetitions

Repetition is defined as the reproduction of a sound, syllable, morpheme, syntactic or prosodic pattern, or word, phrase or clause within a text or speech. On the other hand, words, phrases, or sentences may be repeated for emphasis. According to Johnston (1991: 4), “repetition” has an important role in Arabic language and culture as it plays rhetorical and textual functions. Repetition, thus, always has a function in the literary genre of Arabic. In contrast, repetition in English is tolerated when merely applied as a figure of speech. According to their reports, only 4 novices (13% of the novices) stated having problems with rendering the repeated terms and structures. However, the analysis of their rendering recordings indicates that 5 novices (16% of the total novices) had this type of problem. The analysis reflects that PCT5 skipped the repetition “believe me” as this subject provided *صدقوني فهناك سبب* (“believe me there is a reason”). Similarly, PEX1 resorted to skipping the repetition when this subject rendered only *هل تصدقون ذلك نعم* (“do you believe that”).

4.2.1.15 Redundancy

According to Miller (1963, cited in Chernov, 1992), redundancy can be defined as superfluous information which was resulted from the iteration of message components and their interdependence. In translation, redundancy tries to achieve symmetry between ST readers and TT readers, which can be done either by adding information (grammatical, syntactic, and stylistic elements, etc.) when differences between the two languages make a similar reception impossible for the TT readers, or by suppressing information when ST elements are redundant for the TT readers (Margot, 1979, cited in Molina and Hurtado, 2002).

Repetition, if used well, can be a good and useful instrument in speech and writing as it can emphasise what one wants to say and strengthens the point. Redundancy, on the other hand, cannot be a good thing as it occurs when the repetition of a word or idea does not add anything to the previous use; it only restates the speech, takes up space, and does not add anything to the meaning. The English speech includes redundant expressions which might be deleted during the process of interpreting without affecting the meaning of SL, such as “a lot of British, a lot of Irish, a lot of Italians, a lot of Germans, a lot of Russians, a lot of Chinese” can be interpreted into “a lot of British, Irish, Italians, Germans, Russians, and Chinese”. In their reports, 8 novices (26% of the total number of subjects) mentioned that they faced problems with identifying the redundant expressions, while the analysis of their recordings shows that only 4 novices (13% of the total subjects) could not deal with these expressions appropriately.

4.2.1.16 Culture Specific Terms and Structures

During the process of interpreting, cultural differences can cause problems for interpreters as they may not accurately understand the meaning of the SL, which results in communication failure (Guerra, 2012). The English speech has several culture specific terms and structures such as “shithole”, “pay taxes”, “bar”, “wine”, “full-blooded American”, “I paid a visit to a boyfriend”, and “America is known as a great melting pot”. Although 15 novices (50% of the total number of subjects) reported having problems with rendering these elements during the interpreting task, the analysis of their interpreting

recordings indicates that 20 novices (66% of the total subjects) faced this problem. The analysis shows that PEX17 used a different TL term for the cultural word “bar”, as this subject rendered it into حديقة (“garden”). This may be related to uncommon use of the word “bar” in Arabic culture. Moreover, the structure “melting pot” is basically related to English culture but it has an Arabic equivalent بوتقة الانصهار (“bawtakat Alinsihar”). Most of the subjects have resorted to omitting it from the TT while PCT6 provided a different rendering when they rendered it into امريكا تعتبر دولة عظيمة (“America is considered a great state”).

4.2.1.17 Irony

The English speech includes structures that refer to “Irony”, which cause problems for some novices during the interpreting task into Arabic. For example, “A child runs away from someone throwing a water balloon at him and falls into the pool”, “Immigrants were referred to as a Tsunami by the hero! By the name of Hunter Holman”, “Mr. Trump’s miracle wall”. According to the information gathered from the novices’ questionnaire, 8 subjects (26% of the total) faced the problem of “Irony” in the interpreting task, while the analysis of their interpreting recordings reflects 15 novices (50% of the total number of subjects) encountered this problem. They have mainly resorted to omitting these elements from the TT. The analysis explains that PCT3 provided an inadequate rendering for the ironic structure “Immigrants were referred to as a Tsunami by the hero, By the name of Hunter Holman” when this subject produced ان المهاجرين قد تضرروا من موجة التسونامي (“The immigrants have been affected by the Tsunami”), as it reflects a different ST meaning.

4.2.1.18 Proverbs

The English speech contains examples of proverbs such as “God helps those who help themselves”. According to subjects’ reports, 6 novices (20% of the total number of subjects) reported having problems with rendering these elements. However, the analysis of their interpreting recordings shows 16 subjects (53% of the total subjects) were not able to render the proverbs adequately, as they mainly resorted to omitting these elements from the TT. The analysis shows that subjects provided different renderings for the proverbial structure “God helps those who help themselves”. PCT4 produced an inaccurate rendering when they provided اخبر اصدقائي ان الله سيساعدكم في العيش (“I tell my friends that God will help them in

their life”). PCT17 rendered it inappropriately into ... واخبر صديقاً مهاجراً ان الله سيساعده اوه اوه ... (“And tell an immigrant friend that God will help him ah ah...”). Moreover, this subject hesitated and paused for several second after the rendering of this proverb.

4.2.1.19 Idioms

Idioms are complex and culture-specific multi-word units that require different strategies in translation based on the nature of the idiom, the translator’s command of the language and the relationship between the SL and the target language (Abu-Ssaydeh, 2004). In other words, translating idioms is not a matter of replacement of lexical and grammatical items between SL and the target language but it requires producing TL idiom which has the same meaning of the SL idiom (Bassnett-McGuire, 1980). The English speech contains several idiomatic expressions such as “Once in blue moon”, “Stand the life and hasn’t let it down”, “even if pigs fly!”.

The analysis shows that 14 subjects reported having problems with rendering these elements (46% of the subjects). On the other hand, the analysis of the subjects’ recordings explains that 11 subjects (36% of the total subjects) faced this problem. The analysis illustrates that three different renderings as PCT6 provided الابقار (“cows”) because pigs are not commonly applied in Arabic. Moreover, PEX3 used a colloquial term that is used specifically in Saudi Arabia لو حجة البقرة على قرونها (“if the cow walks on her horns to pilgrimage”) while PEX21 rendered it into حتى لو البطاريق طارت (“even if the penguins fly”).

4.2.1.20 Terms and Structures with Religious Content

Translating religious terms and structures is considered one of the most difficult types of translation because it requires much more caution and precision, as these texts are so sensitive and important due to being holy (Mahmoud, 2015). Religious texts have special meaning which can be distinguished from other text types since they, at the same time, evoke the language and heart. Hence, providing the accurate SL religious meaning in the TT is considered a challenging duty (Khammyseh, 2015; Bahameed, 2014). According to novices’ reports, 5 subjects (16% of the total subjects) stated having problems with

rendering religious terms and structures. On the contrary, the analysis of their recordings shows 12 novices (40% of the total number of subjects) provided inadequate renderings, as they resorted to omitting these structures from their renderings.

The analysis shows that, PCT14 and other subjects rendered this structure into ابقى قويا وتشجع (Stay strong, take the courage, and ask your God”), which is not an accurate TT equivalent but the meaning is close. On the other hand, PEX16 provided an inappropriate rendering for the religious content structure “We don’t see Americans serving in the churches on Sundays” when this subject provided لا نرى الامريكان يعانوا اه اه الاحد (“We do not see Americans suffering ah ah ...on Sunday”). Moreover, this subject hesitated and paused during the rendering of this structure, which affected the rendering of the neighbouring segments. Table 3 below illustrates the differences in the number of problems and the main problems encountered by the novices during the first SI task from English into Arabic based on the novices’ reports and the analysis of their recordings.

Category	Number of subjects who reported having problems	Number of subjects who have problems based on their recordings	Differences
Proper Noun	10	23	13+
Number	28	29	1+
Acronym	18	30	12+
Unknown word	25	20	5-
Word order	10	21	11+
Grammatical Ambiguity	8	19	11+
Passive voice	4	24	20+
Collocation	8	15	7+
Enumeration	12	12	----
Modality	2	8	6+
Cohesive Connector	9	16	7+
Colloquial term	11	6	5-
Coherence	12	13	1+
Repetition	4	5	1+

Redundancy	8	4	4-
Cultural term	15	20	5+
Irony	8	15	7+
Proverb	6	16	10+
Idiom	14	11	3-
Religious structure	5	12	7+
Total	218	319	101

Table 3: differences in the analysis of novices' renderings and their interpreting reports in the English into Arabic task.

4.2.1.21 Main Problems in English into Arabic SI Task; Analysis of Novices' Interpreting Recordings

Table 4 illustrates the main problematic categories that were encountered by the novices during the SI task from English into Arabic based on my analysis to their interpreting recordings.

Category	Number of novices encountered the Problem	Ratio
Acronyms	30	100%
Numbers	29	96%
Passive voice	24	80%
Proper names	23	76%
Word Order	21	70%
Unknown Names	20	66%
Cultural Terms	20	66%
Grammatical Ambiguity	19	63%
Cohesive Connectors	16	53%
Proverbs	16	53%
Collocations	15	50%
Irony	15	50%
Coherence	13	43%
Enumeration	12	40%

Religious Terms	12	40%
Idioms	11	36%
Modality	8	26%
Colloquial Terms	6	20%
Repetition	5	16%
Redundancy	4	13%

Table 4: number of problems in the SI task from English into Arabic.

The table shows that lexical elements such as Acronyms and numbers were the main problematic categories for the novices during the SI task. On the other hand, rendering the repeated and redundant structures were the less problematic elements during the SI task.

4.2.1.22 Results of Analysing Novices' Interpretations regarding the Interpreting Problems in the English into Arabic Task

The analysis of the novices' pilot study in the first task—English into Arabic—comes with the following results:

1. All the novices encountered problems with all the Rich Points that referred to the twenty categories. Among them, the interpretation of lexical elements were the most problematic aspects for novices. This result was derived from the analysis of their interpreting recordings and the analysis of their post-interpreting reports.
2. Novices were not aware of most of the problems encountered and the mistakes committed during the SI task, as there were clear differences between the novices' post-interpreting reports and the subsequent analysis of their interpreting recordings regarding the problems encountered during the SI task.
3. Novices did not have the required knowledge and skills to tackle the interpreting problems as they did not have any strategic management skills to solve or prevent these problems. This is evidenced by the fact that they mainly resorted to hesitation and omission once they faced the difficulties of rendering the Rich Points.

4. Novices did not have the experience to deal with different circumstances of the interpreting task, as it is evidenced by their hesitations, stress, and false starts that have negative effects on the TT. Moreover, they could not manage to cope with the long duration of the SI task, as they seemed exhausted and fatigued during the last part of the interpreting task.
5. The use of the Saudi colloquial Arabic dialect (*ammiyya sa'udiyya*) during novices' interpretations was clearly identified at the expense of applying modern standard Arabic (*fusha*). This should affect negatively on the interpretations, particularly when the audience does not understand the dialect of the interpreter.
6. Although novices were rendering into their native language, many grammatical and phonetic mistakes were detected such as the use of different tense, gender differences, and incorrect pronunciation.

4.2.2 Problems Encountered during SI task from Arabic into English

The same procedures are applied in the Arabic into English task. Bearing in mind that the novices, who are students of interpreting, are interpreting from their A language into their foreign language, this may explain the difficulties they face in dealing with the rendering of difficult elements such as transferring accurate foreign names, expressing the precise cultural equivalents, providing correct syntactic structures, etc. As in the previous task, the following sections present the analyses of novices' interpreting recordings and their post-interpreting questionnaires regarding the problems encountered during the SI task. The tables that include examples of novices' renderings for the 20 categories can be found in **Appendix 9**. Moreover, all the Figures that illustrate the quantitative differences between the analysis of novices' interpreting recordings and their post-interpreting reports regarding the problems can be seen in **Appendix 10**.

4.2.2.1 Proper names

The Arabic speech includes several proper nouns that vary between personal names such as "فاطمة بنت محمد الفهري", "الياس يوسف", "ماركريت تاتشر", "توكل كرمان" countries and cities' names

like "العراق", "مكسيكو". According to the novices' reports, 18 subjects (60% of the total subjects) stated having problems with interpreting "proper names", but, after analysing their recordings, only 8 novices (26% of the novices) encountered problems with rendering these elements. The analysis shows that PCT6 misinterpreted the surname "Mordent" into "Mark". Moreover, PEX17 interpreted the name "سقراط" ("Socrates") into "Scissor".

4.2.2.2 Numbers

In the Arabic speech, different types of numbers are included, which vary from two digits to more complex ones such as "1975", "three quarters", "50%", "2010", "49%". According to the novices' reports, 21 subjects (70% of the subjects) encountered a problem with interpreting numbers, while the analysis of their interpreting recordings shows that 26 subjects (86% of the total subjects) provided inadequate renderings for these segments. The novices had difficulties with rendering multiple digits, as only 5 novices are able to interpret "25000" while 13 novices interpreted 2010 successfully. The analysis explains PEX8 unsuccessfully rendered the ST number "1975" into "1977" and PCT7 transferred a different ST number, "877", when this subject produced "1978".

4.2.2.3 Acronyms

Acronyms are not used widely in Arabic. However, the Arabic speech includes several acronyms such as "يونسكو , داعش , البنتاغون , م , الخ". According to their reports, 10 subjects (30% of the subjects) indicated having problems with rendering these elements. On the contrary, the analysis of their interpreting recordings shows 23 subjects (76% of the total novices) provided inadequate renderings. Furthermore, the easiest acronym for the novices was "UNESCO", as 18 subjects were able to interpret it adequately. Contrarily, the acronym "م", which means "A.D." in English, was the most difficult segment, as none of the novices was able to interpret it appropriately. The analysis shows that PEX10 provided an inadequate rendering for the acronym "يونسكو" ("UNESCO") when this subject rendered it into "United States". On the other hand, PCT15 managed to render the acronym "داعش" ("DAESH"), which stands for "Islamic State" in Iraq and Sham, into "ISIS".

4.2.2.4 Unknown Terms

The Arabic speech includes a few expressions which may be considered difficult or unknown for the novices, such as "براءة اختراع", "المكنسة الكهربائية", "الغسالة الكهربائي", "الجرارات" and "المحاريث". Based on their reports, 20 novices (66% of the total subjects) encountered problems with rendering unknown terms, while the analysis of their interpreting recordings shows that 18 novices provided inadequate renderings (60% of the novices). The analysis shows that the expression "براءات اختراع" ("patents") was rendered by PCT7, who provided a general structure: "women invented a lot". In the same line, PEX7 provided a general structure for Example 150 "المكنسة الكهربائية والغسالة الأوتوماتيكية" ("the vacuum and the laundry"), as this subject produced "the automatic things". Moreover, none of the subjects were able to render "المحاريث والجرارات" ("ploughs and tractors").

4.2.2.5 Word Order

As was discussed in the first section, the difference between English and Arabic in sentence structure is that English has only verbal sentences while Arabic has both verbal and nominal sentences. The Arabic speech contains many examples of Arabic sentences that have no verb such as "تحملت" and VSO structure like "الام والاخت والزوجة", "المرأة نصف المجتمع" and "المرأة العناء", "بدأت المرأة العمل".

According to their reports, 15 subjects (50% of the total subjects) stated having problems with rendering the differences in the structure between the ST and the TT. In contrast, the analysis of their rendering recordings indicates only 5 subjects (16% of the novices) encountered problems with this category. The analysis reflects that the subjects PEX21 and PEX23 resorted to omitting the verb from the TT when they rendered the ST "الياس اسمي يوسف" ("my name is Illyas Yousif") into "my name Illyas alYousif". This sentence is not acceptable in the TL as it does not include a verb that reflects the full meaning, whereas in the SL it is possible to have a sentence with only names.

4.2.2.6 Grammatical Ambiguity

The Arabic speech was almost clear and grammatically unambiguous. However, a sentence like "لتبدأ رحلة التنظيف ولم يتوفر لها في ذلك الحين" seems grammatically unclear as the reference

of the pronoun "الهاء" refers to either the "woman" or to the "cleaning process". According to their post-interpreting reports, 7 novices (23% of the total subjects) believed they had had grammatical problems, while the analysis of their recordings shows 14 novices (46% of the novices) produced grammatically incorrect interpretations. The analysis explains PCT2 interpreted "لم تتوفر له الاجهزة" ("there were no electronic ...") into "They didn't provide electronic devices", as the pronoun "they" is grammatically ambiguous because it is unknown to whom it refers. Passive voice should be used with this type of sentence as the subject in the ST is unknown as well. On the other hand, PCT8 interpreted "فهي تبذل جهودا كبيرة" ("she exerts a lot of efforts") into "She do a lot of effort", which is grammatically incorrect as she inappropriately used "do" with the personal pronoun "she".

4.2.2.7 Passive Voice

As discussed earlier, passive voice in Arabic has only one agentless structure. The Arabic speech has several passive structures which may cause problems for interpreters due to the structural differences between Arabic and English. Structures such as "لم يُسمح للمرأة بالتعلم" "woman was not allowed to get education", "عُقد الاجتماع العالمي الأول" "the first global meeting was held", were included in the source speech. The analysis of subjects' reports shows that 4 novices (13% of the novices) provided inadequate renderings. However, the analysis of their interpreting recordings reflects that 16 subjects (53% of the subjects) provided inadequate renderings. The analysis explains PEX10 and PEX16 produced an inaccurate verb when they respectively provided "was published" and "build" for the interpretation of "اقدم جامعة تم تأسيسها من قبل" ("the first international meeting was held in ..."). Furthermore, the analysis of rendering "تم تعيينها سفيرة من قبل اليونسكو" ("she was assigned as an ambassador by the ...") shows that PEX14 interpreted the passive voice into TT passive voice but it adopted a different ST meaning as she provided "has been known" for the ST "she was assigned".

4.2.2.8 Collocations

The Arabic speech includes a group of collocated structures that require TT equivalence during the SI task such as "تسليط الضوء", "شرب الحساء", "سن قانون", "السراء والضراء". According to their reports, 10 subjects (33% of the subjects) had problems with renderings collocations while the analysis of their interpreting recordings reflects 22 subjects (73% of the total

novices) provided inadequate renderings. Literal rendering of collocations may lead to providing an inappropriate rendering. It was evidenced when 10 novices interpreted أشرب الحساء (“have soup”) literally into “drink soup”, which does not make sense in the TT. The analysis of تبذل جهودا كبيرة في (“She exerts a lot of efforts”) shows that three subjects did not provide the ST equivalent adequately, as PCT8, PEX2, and PEX5 produced inaccurate verbs, respectively: “do”, “got”, and “do much”. Similarly, two other subjects applied different verbs for the interpretation of حصلت على جائزة (“won Nobel Peace Prize”) when PCT14 and PEX10 provided, respectively, “achieved” and “take”.

4.2.2.9 Enumerations

According to novices’ reports, 19 novices (63% of the novices) encountered problems with enumerations. However, the analysis of their interpreting recordings reflects 13 subjects (43% total subjects) provided inadequate renderings for these elements. Most of the subjects could not render the following example of فهي الأم والأخت والزوجة والابنة والعممة (“she is the mother, sister, wife, daughter, and aunt”). The analysis illustrates that PEX9 hesitated and paused after rendering the first word of then he said another segment of the enumeration “she is the mother ahahah... aunt”. Similarly, PCT16 interpreted only two words, then she paused: “Woman is mother sister and ...”.

4.2.2.10 Modality

The Arabic speech contains examples of modal verbs which may cause problems for interpreters as they refer to different meaning such as obligation, probability, ability, etc. The Arabic speech has structures such as يجب علينا ان نتذكر (“we should remember”), اذا استطعنا (“if we can...”), and وربما اكثر (“may be more”). The analysis shows that only 4 novices (13% of the novices) reportedly had problems with interpreting modal verbs. In contrast, the analysis of their recordings reflects 14 subjects (46% of the total subjects) provided inadequate interpretations. The structure يجب عليّ (“I have to...”) means that the speaker is obliged to remind the audience about something. The interpretations of PCT3 and PCT5 were not appropriate as they refer to different meanings rather than the meaning of the modal verbs. These subjects produced, respectively, “I want to remind you” and “I suppose to mention”.

4.2.2.11 Cohesive Connectors

As was discussed earlier, cohesion connectors connect between words, clauses, and sentences. According to their reports, 8 subjects (26% of the subjects) reported having problems with rendering these elements during the interpreting task. On the contrary, the analysis of their interpreting recordings reflects that 7 subjects (23% of the subjects) provided inadequate renderings. PCT14 successfully rendered the conjunction linking word أيضا (“also”) when she produced “I also remember that ...”. Similarly, PEX7 appropriately applied another conjunctive connector, “because”, during the rendering of أول امرأة تفوز بجائزة ... لإسهاماتها في ... (“the woman won the Nobel for her contributions ...”), as she provided “The first woman who won Nobel peace prize **because** she contributed in supporting...”.

4.2.2.12 Colloquial Terms

There were several colloquial expressions that were included in the Arabic speech such as في بالي (“in my mind”), شرب الحساء في الصباح (“to have soup in the morning”).

The number of subjects who reported having problems with rendering colloquial terms and structures is 10 (33% of the subjects). Indeed, the same number provided inadequate renderings based on the analysis of their interpreting recordings when they mainly resorted to omitting them from the TT. The analysis explains that PCT4 managed to render وفي بالي (“in mind”) into “I have in my mind now the saying...”, which expresses the meaning of the ST structure. Similarly, PCT14 provided an adequate rendering for في طبخ الاكلات (“cooking the favourite dishes”), as she produced “Cooking our beloved or favourite dishes”, which reflects the ST meaning adequately.

4.2.2.13 Coherence

According to their reports, only 5 subjects (16% of the subjects) had problems with providing a coherent TT, while the analysis of their interpreting recordings indicates 7 subjects (23% of the novices) were not able to provide a coherent TT because there were long pauses that affected the consistency of the TT.

4.2.2.14 Repetitions

The Arabic speech includes several repeated terms and structures that may cause problems for the subjects, such as بجائزة نوبل (“Nobel prize”), فاطمة بنت محمد الفهري (“Fatma bint Mohammed Alfihry”), or لا تنمية دون المساواة بين الرجل والمرأة (“there is no development without equality between man and woman”). As stated in the questionnaire, only 9 subjects (30% of the total subjects) reportedly confirmed having problems with interpreting the repeated structures. However, the analysis of their interpreting recordings indicates that 7 subjects (23% of the total subjects) provided inadequate renderings regarding the interpretation of repetitions.

4.2.2.15 Redundancy

The Arabic speech includes several redundant expressions that can be omitted without affecting the meaning, such as كالمجستير والدكتوراه (“like Master and PhD”), لمنظمة التربية والثقافة (United Nations Educational, Scientific, and Cultural Organization), والمراكز الصحية (“health centers”). According to subjects’ reports, 11 novices (36% of the total novices) encountered problems with rendering the redundant expressions. In contrast, the analysis of their interpreting recordings shows 8 novices (26% of the total subjects) had not considered these structures as redundant during the SI task.

The analysis shows that PCT7 successfully rendered حصول الكثير من النساء على الشهادات العليا (Many women received high degrees such as Master and PhD) into “Women got high degrees in different specializations”, as she skipped “Master and PhD” and produced only “high degrees”. This seems acceptable because both “high degrees” and “Master and PhD degrees” have the same meaning. Hence, using one of these structures can preserve the ST meaning. On the contrary, PCT9 faced difficulties with rendering تم تعيينها (She was assigned in United Nations Educational, Scientific, and Cultural Organization (UNESCO)) as she hesitated and paused, then she provided the inadequate rendering “She is now ambassador in ahah US ...”. This subject could have only used the acronym “UNESCO” rather than struggling with rendering “United Nations Educational, Scientific, and Cultural Organization”, as both structures refer to the same organisation.

4.2.2.16 Culture Specific Terms and Structures

The Arabic speech includes several cultural expressions which are specific to Arabic culture such as الخالة (“aunt”), حقيبة الدفاع (“defense portfolio”), and الا من يديها (“unless she makes it”). Interpreting cultural terms literally may reflect inappropriate renderings, particularly when rendering between two culturally different languages. The analysis of subjects’ reports reflects that 18 subjects (60% of the novices) had problems with rendering these elements, while the analysis of their interpreting recordings shows 15 subjects (50% of the total subjects) provided inadequate renderings. Most of the subjects provided a literal rendering for the حقيبة الدفاع (“defense portfolio”), as they mostly provided renderings like those of PCT3 and PCT7, respectively: “The bag of defense” and “The defense bag”. These renderings do not reflect the real meaning of the ST as this structure has an equivalent in the TT. On the other hand, PEX1 resorted to skipping the cultural word in Example 167 الخالة (“aunt”) when she hesitated and paused during the rendering of this word then she skipped it “She is mother, daughter, wife ahahah..”.

4.2.2.17 Irony

Expressing “Irony” is included in the Arabic speech, as in “هو الدهاء الذي وصل إليه البعض”. According to novices’ reports, 7 novices (23% of the subjects) stated having problems with interpreting irony. In contrast, the analysis of their interpreting recordings reflects that 10 subjects (33% of the subjects) had this problem with rendering this category. All the inadequate renderings of the subjects for the ironic structure ام هو الدهاء الذي وصل إليه البعض؟ (“or is it the adroitness of some people”) are due to omitting this structure from their renderings.

4.2.2.18 Proverbs

The Arabic speech has several proverbs which may cause problems for the subjects during the SI task, such as إذا أردت أن تعرف رقي أمة فانظر إلى نساها (“if you want to see the success of the nation look at its women”) and (وكما يقال وراء كل رجل عظيم امرأة “as it is said behind every great man is a great woman”).

According to the post-interpreting questionnaire, 22 subjects (73% of the total subjects) reported that they encountered problems with interpreting these proverbs. On the contrary, the analysis of their rendering recordings reflects that 17 subjects (56% of the subjects) provided inadequate renderings. The analysis of rendering the proverb إذا أردت أن تعرف رقي أمة فانظر إلى نساها (“if you want to see the success of the nation look at its women”) shows that PCT9 and PEX21 relatively conveyed the meaning of the ST and their renderings require slight improvement, particularly when they produce “if you want to see ...”, as the ST applied the verb “know” rather than “see”. Thus, this rendering lacks the interpretation of important ST word رقي (“success”), which has an effective meaning to the whole proverb. Similarly, the rendering of وكما يقال وراء كل رجل عظيم امرأة (“as it is said behind every great man is a great woman”) did not convey the complete ST meaning by PEX12 because she produced “As they said every great man is a great woman”. This rendering lacks an important word, which is وراء (“behind”), that also has an important meaning to the proverb.

4.2.2.19 Idioms

The Arabic speech includes the idiomatic structure وتساهم ... في بناء الأجيال (“She contributes to raising the generations”), which was rendered differently by the novices. As reported by the novices, 12 of them (40% of the subjects) had problems with interpreting the idiomatic structure. In contrast, the analysis of their rendering recordings indicates that 13 subjects (43% of the novices) encountered problems with interpreting idioms during the SI task, as they mainly resorted to omission. The analysis of rendering the idiomatic structure وتساهم المرأة في بناء الأجيال (“She contributes to raising the generations”) reflects that PCT9 and PEX8 provided the meaning of the ST, though the renderings were not precisely considered ST equivalents, as they produced, respectively, “She starts building nations” and “Woman starts to build our society”. The meaning of the words “nations” and “society” is close to the ST word “generations”.

4.2.2.20 Terms and Structures with Religious Content

The Arabic speech includes several religious structures such as:

“The Almighty ذكرها الباري عز وجل في كتابه العزيز” ووصينا الإنسان بوالديه حملته أمه وهنا على وهن “ (The Almighty said in the Holly Book; And We have enjoined on man (to be good) to his parents: in travail upon travail did his mother bear him”), قال المصطفى "صلى الله عليه وسلم" "الجنة تحت اقدام الامهات" ("AlMustafa 'peace be upon him' said in Hadith; paradise is under mothers' feet").

Interpreting religious expressions into English is regarded as one of the main problematic elements for the novices during the SI task, as 23 subjects (76% of the subjects) reportedly encountered problems with rendering these elements, while the analysis of their interpreting recordings shows that 28 novices (93% of the novices) provided inadequate renderings. The analysis shows that, during rendering the Quranic verse, PCT3, PEX13, and PEX5 resorted to reproducing the same ST verse in the TT rather than rendering it. On the other hand, other subjects tried to convey the general meaning of the verse in the TT, as in the rendering by PCT7, “Quran say we should respect women”. Similarly, PEX1 provided the same rendering for this verse when they produced a general TT structure: “we have to respect women”. In the same line, PCT14 rendered this verse into another general structure: “The Aya from Quran saying woman an important to us”. Furthermore, PEX3 presented another general rendering for this verse when she provided “you should follow them and obey your mother”. Other subjects resorted to omitting these structures, particularly during the rendering of the Quranic verse.

Table 5 below illustrates the problems encountered by the novices during the SI task from Arabic into English based on the novices’ reports and on the analysis of their interpreting recordings.

Category	Problems according to novices’ reports	Problems according to the analysis of novices’ Recordings’	Differences
Proper names	18	8	10-
Number	21	26	5+
Acronym	10	23	13+
Unknown word	20	18	2-
Word order	15	5	10-

Grammatical ambiguity	7	14	7+
Passive voice	4	16	12+
Collocations	10	22	12+
Enumeration	19	13	6-
Modality	4	14	10+
Cohesive connector	8	7	1-
Colloquial term	10	10	-----
Coherence	5	7	2+
Repetition	9	7	2-
Redundancy	11	8	3-
Cultural term	18	15	3-
Irony	7	10	3+
Proverb	22	17	5-
Idiom	12	13	1+
Religious terms and structures	23	28	5+
Total	253	281	28+

Table 5: number of problems encountered by novices in SI task from Arabic into English

4.2.2.21 Results of Analysing Novices' Interpretations regarding the Interpreting Problems in the Arabic into English Task

The analysis of the novices' pilot study in the second task, Arabic into English, provides the following results:

1. All the novices encountered problems with rendering most of the Rich Points that referred to the twenty categories. The interpretation of lexical elements, numbers and acronyms, cultural elements, and terms and structures with religious content were the most problematic elements for novices, according to both analyses.
2. As in English into Arabic task, novices were not aware of most of the problems encountered and the mistakes committed during the SI task, as there were clear differences between the subjects' post-interpreting reports and the final analysis of their interpreting recordings regarding the problems encountered during the SI task.

3. As in the previous task, novices lack the experience and knowledge to deal with the interpreting problems. In other words, they did not have the suitable solution that could be applied to solve or prevent the problems. Hence, they mainly resorted to omitting the Rich Points once they faced the difficulties of interpreting them.
4. The effect of the problem is not limited to a particular segment or to the rich point itself, but it extended to include the neighbouring segments in the sentence, which consequently caused negative effects on the TT.
5. As in the previous task, hesitations, stress, and false starts were clearly identified in the analysis of novices' interpretations. Moreover, a lot of syntactic and structural mistakes were committed by the novices, in addition to providing meaningless and incorrect pronunciation for many ST expressions. This may be related to the interpreting directionality, as the subjects render from their native language (Arabic) into their foreign language (English).

4.2.2.22 Main Problems in the English into Arabic Task According to the Analysis of Novices' Interpreting Recordings

Table 6 and below indicates the main problems encountered by the novices during the SI task from English into Arabic. In other words, the problems stated below are based on the analysis of their interpreting recordings.

Category	Number of subjects encounters the problem	Percentage
Acronyms	30	100%
Numbers	29	96%
Passive voice	24	80%
Proper names	23	76%
Word Order	21	70%
Unknown terms	20	66%
Cultural terms	20	66%

Grammatical Ambiguity	19	63%
Cohesive connectors	16	53%
Proverbs	16	53%
Collocations	15	50%
Irony	15	50%
Coherence	13	43%
Enumeration	12	40%
Religious expressions	12	40%
Idioms	11	36%
Modality	8	26%
Colloquial terms	6	20%
Repetition	5	16%
Redundancy	4	13%

Table 6: novices' main problematic categories during SI task from English into Arabic.

4.2.2.23 Main Problems in the Arabic into English Task According to the Analysis of Novices' Interpreting Recordings

Table 7 explains the main problems encountered by the novices during the SI task from Arabic into English. The problems stated below are based on the researcher's analysis of the subjects' recordings.

Problem	Number of Subjects encounters the Problem	Percentage
Religious structures	28	93%
Number	26	86%
Acronyms	23	76%
Collocation	22	73%
Unknown terms	18	60%
Proverbs	17	56%
Passive voice	16	53%
Cultural terms	15	50%
Modality	14	46%
Grammatical ambiguity	14	46%

Idioms	13	43%
Enumeration	13	43%
Colloquial terms	10	33%
Irony	10	33%
Proper names	8	26%
Redundancy	8	26%
Repetition	7	23%
Coherence	7	23%
Cohesive connectors	7	23%
Word order	5	16%

Table 7: novices' main problematic categories during SI task from Arabic into English

4.2.2.24 Main Problems in the SI Tasks Based on Novices' Reports for Q3 in the Questionnaire

The third question in the questionnaire was about the main problems encountered during the SI tasks from English into Arabic and vice versa (Q3). Table 8 and below illustrates the list of main problems that the novices believe to be the main problematic element during both tasks. For the sake of this study, only linguistic problems are listed.

Problem	English into Arabic	Arabic into English
Proper Noun	11	12
Number	15	13
Unknown word	14	15
Word order	10	5
Grammatical Ambiguity	7	10
Colloquial term	1	1
Coherence	.....	3
Repetition	.....	3
Cultural term	.....	1
Religious structure	.....	19

Table 8: main problematic elements during both SI task according to novices' reports in Q3

Appendix 10 includes Figures that explain the main problems encountered by the novices during both SI tasks based on the analysis of their interpreting recordings and on the novices' reports (Q3 in the questionnaire).

4.2.3 Novices' Solutions for the Interpreting Problems

After analysing the problems encountered by the novices during both SI tasks, this section focuses on the solutions that were applied by them to solve or prevent these problems.

All the examples of novices' solutions in both SI tasks can be found in **Appendix 13**

The analysis is based on Al-Salman and Al-Khanji's (2002) model of interpreting strategies. This model is applied because it was originally used to analyse the strategies that were applied by novices and experts during an SI task between English and Arabic. It provides a distinction between those strategies that have positive effects in solving the interpreting problems and those which have negative effects. The classification of strategies applied in this model covers most of the subjects' solutions found in the analysis of their interpreting recordings. It sheds lights on aspects that can be found, particularly in interpreting from English into Arabic, such as using the code-switching solution, as interpreters tend to use colloquial or dialectal Arabic rather than standard Arabic. Moreover, this pilot study investigates the interpretation of about twenty elements that requires detailed analysis of the solutions applied with rendering these elements, and this classification mostly fits the purpose of this study.

As stated in Chapter Three, this model classifies communication strategies that are used by interpreters to solve interpreting problems into two groups. The first one is achievement strategies which have positive effects on the interpreting process, in which interpreters can successfully solve the problems. This group includes skipping, anticipation, approximation, and summarizing. On the other hand, reduction strategies refer to unsuccessful management of interpreters to the interpreting problems which result to a gap between the speaker and the audience. This group includes literal translation, incomplete sentence, message abandonment, and code switching.

It is important to differentiate between skipping, on the one hand, as a favourable strategy that helps the interpreter to solve the interpreting problems although, on the other hand, incomplete sentences and message abandonment have negative effects on the interpreting process and on the interpreter's performance. Skipping reflects the interpreter's ability to make relevant omissions which leave out unnecessary repetitions, redundant expressions, and so on (Al-Salman and Al-Khanji, 2002: 618). It is in line with what Pym (2008) calls "low risk" omission and what Korpál (2012: 105) states:

"it is possible (and sometimes even advisable) for an interpreter to deliberately omit certain elements of the source speech for pragmatic reasons: in order to make the rendition more concise and coherent, devoid of superfluous digressions and message redundancy, as well as to dispose of information that is implicitly present in the speech and, thus, irrelevant for the delegates."

Similarly, Viaggio (2002 cited in Korpál, 2012: 105) also argues that everything that is redundant, irrelevant, parasitic, or incomprehensible should not be interpreted.

Incomplete sentences refer to fragmented utterances when interpretation is cut short mid-sentence, leaving unfinished messages. This occurs when the interpreter spends too much time trying to find equivalent expressions but fails to do so before additional input must be interpreted (Al-Salman and Al-Khanji, 2002: 617). Message abandonment refers to periods of silence and long pauses that result in important omissions in the interpretation of the SL content. Moreover, it occurs when certain messages are not interpreted at all because of the difficulties the interpreter faces (ibid., 2002: 618). It is similar to what Pym (2008) calls "high risk" omission, in which important information has been missed during the interpreting task due to the difficulties in interpreting.

4.2.3.1 Novices' Solutions to Solve Interpreting Problems in the English into Arabic Task

The analysis of subjects' solutions for the interpretation of the Rich Points is mainly based on the analysis of their interpreting recordings. As mentioned in the previous section, in this analysis, Al-Salman and Al-Khanji's (2002) model of communicative strategies has been

applied. This model classifies the strategies into two types: achievement strategies and deductive strategies.

4.2.3.1.1 Achievement Strategies

These strategies refer to successful solutions that interpreters apply when they encounter problems or aim to prevent the problems that may occur during the interpreting task. They help to maintain communication between the speaker and audience even when interpreters face difficulties during the interpreting process (Al-Salman and Al-Khanji, 2002). Studying these strategies will help to understand how successful the novices are when using these strategies, particularly during the rendering of the Rich Points that were inserted in the ST. These strategies include skipping, anticipation, approximation and summarising.

4.2.3.1.1.1 Skipping

Skipping is applied when interpreters resort to skipping unimportant information which, if omitted, does not have an effect on the meaning of the utterance. The analysis reflects that 8 novices resorted to skipping when they rendered repeated and redundant structures. Two subjects skipped “former US president Barack”, as they kept the name “Obama”, which is a well-known name, and can imply the person who used to be the president of the United States. Hence, this type of skipping is apparently appropriate as it does not affect the meaning of the ST. Similarly, another instance of skipping was identified during the analysis when PCT14 and PEX11 skipped “very difficult it could be a hell for some people” and only provided وبالمناسبة الحياة هنا ليست سهلة بل صعبة جدا وغالية (“By the way, life here is not easy, it is very difficult and expensive”).

4.2.3.1.1.2 Summarising

Interpreters use this strategy when they avoid long sentences and only convey the core of the SL sentence rather than rendering every word of the source message. In other words, interpreters focused on conveying the content of the SL rather than the structure. The analysis shows 9 subjects applied the strategy of summarising during the SI task, which could be the main solution that the novices used among the achievement solutions to

overcome the interpreting problems. The source speech seemed to include difficult terms such as “full-blooded Americans”, “pruning shears”, “harvesting strawberries”, and “with pole fruit pickers”. Hence, PCT14 and PEX3 provided general structures, respectively: لا نرى الأمريكيين يعملون في الزراعة في سان فرانسيسكو وكاليفورنيا وغيرها (‘‘we do not see Americans work in agriculture in San Francisco and California and in others’’) and لا نرى الأمريكيين يعملون في المزارع والاعمال البسيطة جدا (‘‘we do not see Americans work in farms and do simple works’’). These interpretations relatively reflect the meaning of the source message.

4.2.3.1.1.3 Anticipation

This strategy is applied when interpreters anticipate the expression or structure in the TL before the speaker utters it. According to Chernov’s model (2002), anticipation not only operates at a micro-level (words and phrases), but also at a macro-level (text and situational context). The analysis of novices’ recordings reflects that only 3 subjects applied this strategy during the interpreting task. PCT6 anticipated the interpretation during the delivery of the ST when she produced دائما ما اخبر صديقي ان الله يساعد من يساعدون انفسهم فقط كن شجاعا (‘‘I always tell my friend that God helps those who help themselves, only be strong’’), which seems to reflect the meaning of the ST. Similarly, PCT8 and PCT15 expressed the meaning when they used a common Arabic structure that urges the person to work. Hence, they provided, respectively, دائما ما اخبر صديقي ان الله يساعد من يساعد نفسه (‘‘I always tell my friend that God helps those who help themselves’’) and الرب يستطيع مساعدة الأشخاص الذين يساعدون (‘‘God can help those persons who help themselves by themselves’’).

4.2.3.1.1.4 Approximation

Interpreters resort to this strategy when there are problems with rendering the lexical elements during the interpreting task. Therefore, they tend to provide an alternative expression which is not precisely the equivalent but can reflect the semantic and lexical meaning of the required one (Al-Khanji et al.: 2000). The analysis of novices’ performance shows 8 novices provided approximate TT interpretations during the SI task. PEX12 used the word مضر (‘‘harm’’) for the ST word (‘‘hell’’) as this subject produced قد تكون مضره لبعض الأشخاص (‘‘It could cause harm for some persons’’) which is close to the original meaning. In order to avoid the difficulties of transferring the number, ‘‘America has tens of thousands of

people”, PCT1 applied a general structure that refers to this number, as she produced هناك العديد من المهاجرين (“there are many illegal immigrants in America”).

4.2.3.1.2 Reduction Strategies

According to Al-Salman and Al-Khanji (2002), reduction strategies are the other group of communication strategies that refers to interpreters’ unsuccessful management of interpreting problems. These strategies have negative effects on the communication act and on the interpreters’ performance and consequently increase the gap between the speaker and the audience. They include incomplete sentence, literal translation, message abandonment, and code switching.

4.2.3.1.2.1 Incomplete Sentences

Interpreters resort to this strategy when they omit large units of the text. Al-Khanji et al. (2000) state that this strategy is applied when interpreters encounter comprehension problems as they start interpreting, which result in this omission and inability to follow up with the speaker.

The analysis reflects that 19 subjects resorted to this solution during the SI, which affected negatively on TT. The analysis shows that PCT7 resorted to pausing during rendering “From my point of view controlling and patrolling the border” when she reached the word السيطرة (“controlling”), in which she hesitated and paused, which left an important part of the sentence uninterpreted ... من وجهة نظري فإن السيطرة و... (“from my point of view to control and ...”). PEX8 faced difficulties with rendering the number (“2009-2017”), which made the subject pause temporarily during the interpretation, which had negative effects on the interpretation: الرئيس باراك أوباما عندما كان يحكم ... (“president Barack Obama when he was ruling ...”).

4.2.3.1.2.2 *Literal Translation*

Literal translation occurs when interpreters, due to time restrictions, resort to interpreting the SL text word by word, ignoring the context of situation in their interpreting (Al-Salman and Al-Khanji, 2002). According to the analysis, literal translation is one of the main solutions that the novices follow during the SI task. In other words, the number of subjects who followed literal translation is 24, which represents 80% of the total subjects.

It was clear from the analysis that the novices were trying to cope with the time pressure and speaker's speech rate (110-120 WPM), which made them resort to literal translation. The analysis shows that PEX9 resorted to rendering the idiomatic structure "a piece of cake" literally, which reflects a different meaning: ليست قطعة كعك. The meaning of this idiom refers to something easily accomplished⁶. The rendering of PEX8 it was considered literal as she did not take into account the structural differences in word order between the SL and the TT. In other words, it is recommended to start the rendering with يجب ان لا يلام المهاجرين ("immigrants should not be blamed") rather than starting with "refugees running away...". In this rendering, the meaning is preserved while the structure is not preferable.

4.2.3.1.2.3 *Message Abandonment*

Message abandonment differs from incomplete sentences, in that the latter means the interpreter pauses when he/she encounters a problem within the sentence but then he/she resumes the interpreting after that short pause, while the former means the interpreter resorts to long pauses which may include more than one sentence when he/she encounters a problem during the interpreting process. Furthermore, interpreters apply message abandonment when they realise that they have no other choice and they cannot continue the process of interpreting because of the difficulties they encounter, which consequently leads to periods of silence and long pauses.

The analysis of subjects' interpreting recordings reflects that message abandonment was applied when they could not follow up with the speaker. In other words, 25 novices resorted

⁶ See: <https://www.dictionary.com/>

to this solution when they encountered problems of rendering the *Rich Points*. Furthermore, in some cases, subjects paused for more than one minute, as in the renderings of PEX23, PEX14, PEX8, PEX5 and PCT14.

4.2.3.1.2.4 Code-Switching

Interpreters resort to switching from standard Arabic into its colloquial form especially when they encounter problems related to time pressure and speaker's fast delivery speech. In standard Arabic, the interpreters have to monitor their phonetical, morphological, and syntactical rules during the production of the TT. On the other hand, colloquial Arabic is a form of acquired language that does not need much formulation efforts from the interpreters (Al-Khanji et al., 2000). This reduction solution negatively impacts the interpreting process, particularly when the audience do not understand the interpreter's colloquial language. The analysis reflects 4 subjects applied colloquial language during the SI task.

The analysis shows that PCT14 applied colloquial language rather than the Modern Standard Arabic (MSA) during the interpreting process, particularly the structure التي بحكها ("which belong"). She also used colloquial language when she interpreted بينتهم ولا تناسبهم ("do not commensurate them and their environment"). The examples show that the subjects used colloquial forms which are specific to the Saudi community and are not used in other Arabic communities. This might be related to subjects' inability to monitor their interpretations before producing the TT, which may be due to time and the cognitive pressure of SI.

In Arabic, the Modern Standard Arabic (MSA) or "Fusha" is the formal form of language that is applied particularly in TV, universities, and all other official events. This form of language is learned and has particular rules to be spoken. Conversely, colloquial or dialectal language is commonly applied informally at home, on social media, and at all informal events. Moreover, it is learned automatically and spontaneously through time and does not require applying grammatical, phonetical, or syntactical rules (Al-Salman and Al-Khanji, 2002: 623). Hence, interpreters find it easier to apply colloquial Arabic when they do not have time to provide a formal Arabic equivalent.

Figure 8 shows novices' solutions once they encountered the interpreting problems

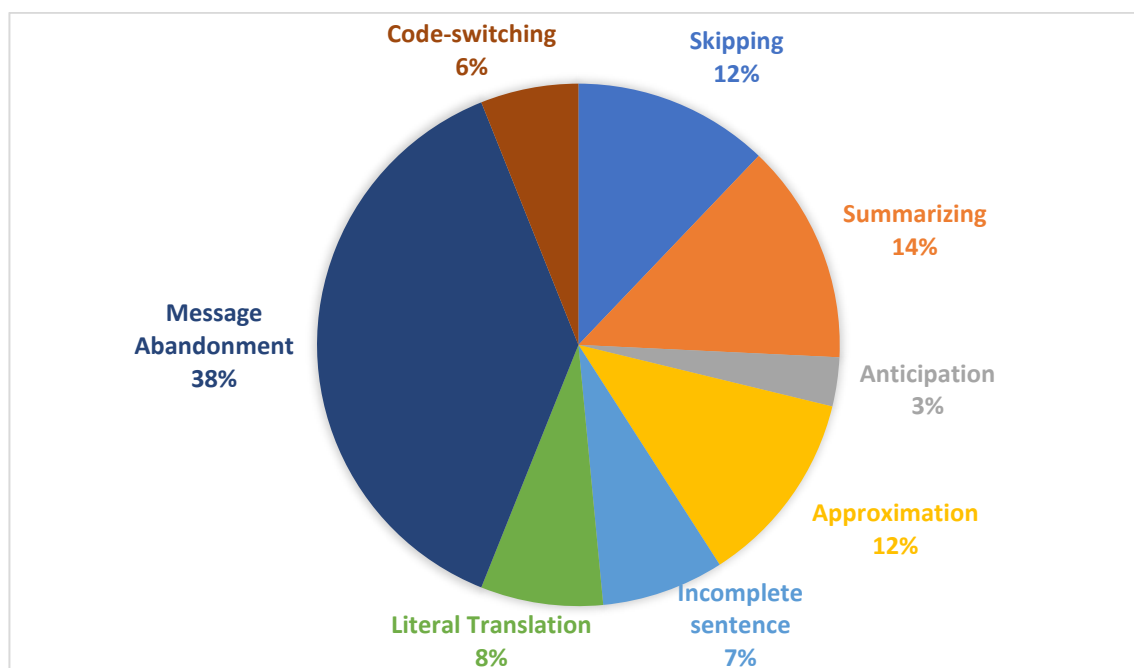


Figure 8: Novices' solutions during SI task from English into Arabic.

4.2.3.2 Novices' Solutions Applied to solve the interpreting problems in the Arabic into English SI Task

In this part, novices' solutions that were applied to solve the interpreting problems during the second SI task, rendering from Arabic into English, will be discussed. In this task, subjects interpret from their A language (Arabic) into their B language (English), which may affect the number of available strategies.

4.2.3.2.1 Achievement Strategies

In this section, the successful solutions that were applied by novices to solve or prevent the interpreting problems will be discussed and analysed. These solutions can help interpreters to maintain the communication act and reduce the cognitive load that they may experience during the SI task.

4.2.3.2.1.1 Skipping

The analysis shows that 6 subjects resorted to skipping parts of the ST in order to overcome or avoid the difficulties of interpreting. In other words, the analysis reflects that 3 subjects used skipping during the SI task. PCT14 skipped *من سكان العالم 49%* in “49% of world population”, which seems successful management as it did not affect the meaning of the ST. Thus, the following sentence has the same meaning, which was appropriately rendered into the TT: *ما يقارب نصف سكان العالم* (“half of the total world inhabitants”). Similarly, PCT17 did not render *رئاسة الوزراء* (“prime ministry”) as she adequately interpreted *رئاسة الدولة* “presidency”, which may also refer to “prime ministry”.

4.2.3.2.1.2 Summarising

The analysis reflects that 8 subjects summarised their renderings when they faced difficulties with rendering the Rich Points. In other words, 27% of the total subjects used summarisation during the SI task. The analysis indicates that PCT4 rendered the gist as she conveyed “I have to mention the architect Zaha Hadid, she has important works globally” rather than expressing all the ST details. PCT9 provided “internationally” instead of *من قبل* *المنظمات والهيئات الدولية* (“by organizations and international bodies”), which seems to have the same meaning.

4.2.3.2.1.3 Anticipation

The use of the anticipation is not widely applied by the novices as the analysis reflects only 3 subjects resorted to anticipation during the SI task. The analysis shows that PCT9 and PEX3 anticipated the interpretation of Example 189 when they provided, respectively, “As an evidence a lot of women have Masters and PhDs in all majors” and “An evidence of that women get high education like Master and PhD”.

4.2.3.2.1.4 Approximation

The analysis explains that the subjects, in some cases, did not provide the accurate TT but they resorted to producing approximate equivalents. In other words, 7 novices used approximation when they could not render the Rich Points. The analysis shows 7 subjects preferred to render the ST structure, اسلط الضوء على (“shed the light on”), into an approximate equivalent which has a relatively similar meaning, “talk about”, as in the rendering of PCT1. In the same line, PCT2 interpreted في طبخ الأكلات التي نحبها (“in cooking our favourite dishes”) into “in cooking very delicious food”, which reflects the ST meaning .

4.2.3.2.2. Reduction Strategies

The solutions have negative impact on the interpreting process as they do not reflect the SL meaning appropriately.

4.2.3.2.2.1 Incomplete Sentence

The analysis shows that, in several examples, the subjects leave the rendering incomplete and then complete their renderings. In other words, the analysis reflects that 3 subjects applied this solution when they encountered problems with rendering the *Rich Points*. The use of this strategy affects negatively on the interpreting process. The analysis shows PCT8 encountered problems with rendering the difficult expressions الأجهزة الحديثة كالمكنسة الكهربائية والغسالة الأوتوماتيكية (“technical devices like electrical vacuum, automatic laundry machine”). She consequently paused and hesitated, which results in leaving segments of the sentence uninterpreted. Moreover, the majority of the subjects could not render the Quranic verse in Example 193 ووصينا الإنسان بوالديه حملته أمه وهنا على وهن (“we have enjoined on man (to be good) to his parents: in travail upon travail”), as they paused until the speaker finished this verse and then they resumed the interpretation.

4.2.3.2.2.2 *Literal Translation*

Several subjects resorted to providing a word-by-word rendering during the interpretation of the Rich Points. Literal translation has negative effects on the TT and on the interpreters' performance, particularly during the interpretation of cultural elements, as providing a literal translation with culture specific terms may cause cultural gaps between the ST and the TT. The analysis shows that 3 novices applied literal translation during the SI task. The use of word-for-word rendering rather than providing the accurate ST equivalents. In other words, PCT4 decided to interpret أن اسلط الضوء ("shed light on") literally into "put light on". Similarly, PEX5 rendered لا أحب شرب الحساء في الصباح الا من يديها ("I do not like to have soup except the one that she prepares") into "I do not like to drink soup except that she prepares", which seems like a word-for-word rendering, as "have soup" is the best interpretation for this structure.

4.2.3.2.2.3 *Message Abandonment*

As in the English into Arabic task, message abandonment is considered one of the widely applied solutions that the subjects used during the interpreting task. According to the analysis, 18 subjects resorted to message abandonment, with 60% of the total number of novices. Furthermore, long pauses that lasted more than one minute were identified, which, consequently, negatively affected other segments, such as the renderings of PEX23, PEX14, PEX9, PEX5.

Figure 9 shows novices' solutions for the interpreting problems during SI task from Arabic into English.

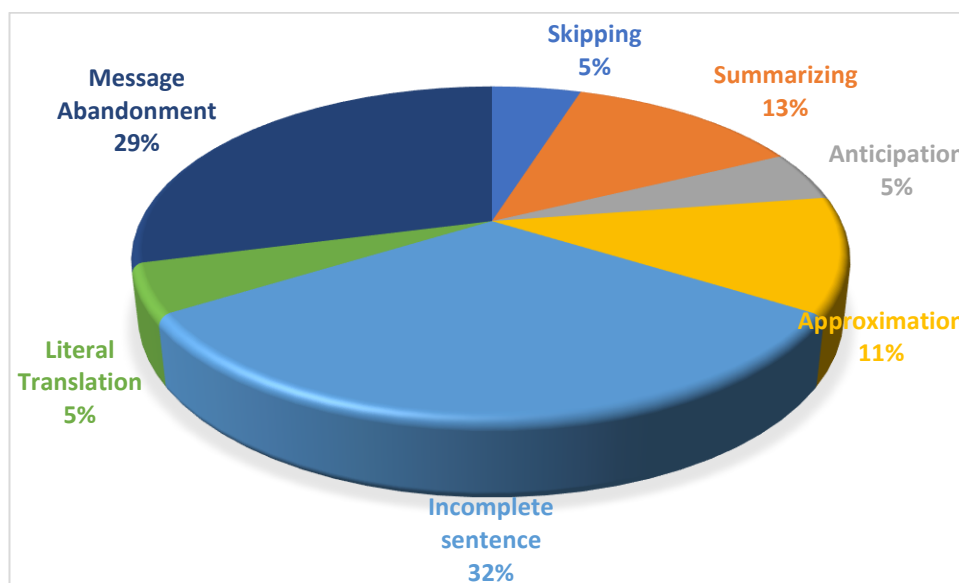


Figure 9: Novices' solutions during SI task from Arabic into English.

4.2.3.2.3 Results of Novices' Solutions for the Interpreting Problems in the Pilot Study

The analysis of novices' solutions for the interpreting problems shows the following:

1. No clear strategic behaviour has been detected from the novices' interpretations in both SI tasks. This could be observed when the subjects mainly resorted to short and long pauses when they encountered problems with rendering the Rich Points.
2. In both tasks, the subjects applied more reduction solutions that have negative effects on the interpreting process. In other words, they could not manage to successfully solve or avoid the interpreting problems during the rendering of the Rich Points. Moreover, the use of achievement strategies which help to solve the problems and keep the communication act was very poor from the subjects, as the percentage of applying these strategies is clearly less than those of reduction strategies.
3. In the English into Arabic task, novices resorted to message abandonment as a solution when they faced problems with rendering most of the Rich Points. In other words, 38% of the subjects resorted to long pauses during the interpreting task. On the other hand, novices mainly left the sentences unfinished once they encountered the interpreting problems during the Arabic into English task. This could be due to

the interpreting direction, which made 32% of the subjects leave the sentences incomplete during the SI task. Moreover, message abandonment is considered the main option for the novices in both SI tasks in addition to providing incomplete renderings particularly during the Arabic into English task. This reflects the novices' lack of experience to apply the necessary strategies that help to overcome the problems during the SI task.

4. In both tasks, the use of achievement strategies did not exceed 14% of the total number of the subjects. This reflects their inability to cope with most of the interpreting problems. Moreover, the strategy of anticipation was hardly applied in both tasks as it was only applied during both tasks by approximately 5% of the subjects though it is considered one of the important strategies that help interpreters to reduce the time and cognitive pressure during the SI task.

In the English into Arabic task, some of the novices applied code-switching or switching from modern standard Arabic into colloquial Arabic, which has negative effects on the interpreting process, particularly when the audience do not understand the dialect of the interpreter. This might be due to time pressure, as interpreters tend to follow the speaker and have to monitor their Arabic because standard Arabic has phonetical and grammatical rules that require monitoring to be mastered, especially when it is used by novice interpreters.

4.2.4 General Results Derived from the Pilot Study of Novice Interpreters

From the analysis of the pilot study, the following results can be extracted:

1. Based on both analyses, this study reflects that the novices encountered problems with all 20 categories designed for this pilot study (Rich Points), which include lexical, syntactic, cultural, and pragmatic elements. However, interpreting lexical elements such as proper nouns, acronyms, and numbers were considered the main problematic elements in the English into Arabic SI task, while rendering the cultural elements such as terms and structures with religious content was the main

problematic element in the Arabic into English task. These results were confirmed by the subjects' reports regarding the main problematic elements during each SI task based on Q3 in the questionnaire.

2. Novices unsuccessfully dealt with the interpreting problems as they could not manage to apply the necessary strategies to solve or prevent these problems. Hence, they mainly resorted to undesired solutions that affected the communication act negatively. In other words, they applied omission, unfinished sentences, and periods of silence which caused them to omit important aspects of information. Moreover, the effect of the problem is not limited to the rich point itself, but it extended to the neighbouring segments in the sentence as well.
3. In both tasks, the novices did not apply important strategies that can help to overcome or prevent the interpreting problems. In other words, the use of strategies such as approximation, summarising, skipping, and anticipation did not exceed 9% of the total number of subjects. On the other hand, those solutions that have negative effects on the interpreting process and on the TT were widely applied by the novices, as 32% of the total number of novices made long pauses in the Arabic into English task.
4. Novices were not aware of most of the problems encountered during the interpreting task. This was based on the differences between the number of problems encountered by the novices based on my analysis of novices' recordings and the number of problems that were detected based on the analysis of subjects' post-interpreting reports. This unawareness might be related to subjects' lack of the required knowledge and skills that can cope with the difficulties of SI.
5. The analysis of this pilot study shows that novices made other mistakes aside from those during rendering the Rich Points. In other words, there are other problematic aspects which also affected the interpreting process, interpreters' performance, and the TT. These aspects are detected when the novices resorted to:

- a) code-switching in the English into Arabic task when the novices produced colloquial Arabic rather than standard Arabic as they could not cope with the speakers' pace. In this regard, Modern Standard Arabic (MSA) has particular grammatical, phonetical, and syntactic rules that require time from the novices to be produced. Therefore, it seemed easier for the novices to apply colloquial terms rather than applying standard Arabic.
 - b) providing incorrect phonological and syntactic renderings, particularly during their attempt to produce Modern Standard Arabic during English into Arabic task, which requires more reformulation efforts as compared to colloquial Arabic. Moreover, they provide inappropriate renderings in terms of syntax and phonology particularly during the Arabic into English task.
6. In both tasks, the novices experienced hesitations, stress, and bad starts that negatively affected their performance, particularly when they faced difficulties with rendering the Rich Points. Moreover, there were remarks of exhaustion and fatigue in the novices' performance which reflect novices' inability to cope with a long SI task.

4.3 Expert's Pilot Study

As performed with the novices, this part discusses expert's pilot study which will start with the subject chosen for this study.

4.3.1 Expert Chosen for the Pilot Study

As mentioned in the previous chapter, a professional female interpreter and lecturer of SI at Princess Nourah Bint Abdulrahman University, Kingdom of Saudi Arabia (KSA) participated in the pilot study. Information about the expert participant can be found in chapter 3). The same methodology, materials, and analysis that were applied in the novices' pilot study are also used with the expert pilot study.

4.3.2 Interpreting Problems in the Expert's Rendering During the English into Arabic SI Task

A list of Rich Points that includes 20 categories of potential problems which starts with proper names. The tables that include examples of Expert's renderings for the 20 categories in English into Arabic SI task can be found in **Appendix 14**.

4.3.2.1 Proper names

According to the analysis of the subject's reports and the analysis of her interpreting recordings, the subject did not encounter any problems with interpreting the proper names during the SI task. In other words, she successfully conveyed the majority of the proper names into the TT, with 80% of the total number of the proper names. In several examples when there are multiple proper names, she rendered one or two items and skipped the rest.

4.3.2.2 Numbers

The analysis shows that the subject had problems with rendering some of the number segments as she succeeded to transfer 7 items of the ST numbers out of 12 segments. The expert could not manage to transfer the accurate ST number "21st century" as she produced "20th century". Moreover, the ST number 1606, was omitted from the TT, which has negative effects on the TT.

4.3.2.3 Acronyms

The subject reported in Q2 of the questionnaire that acronyms should be studied before the interpreting task. Besides, later analysis of the subject's rendering shows that, in some cases, the subject resorted to either omitting the acronyms or reproducing them in TT, which may affect the interpreting process negatively. The analysis reflects that the expert reproduced the acronym "IOM" in the TT when she hesitated and then said ... حسب ال ال أي او ام ... ("according to alalal IOM").

4.3.2.4 Unknown terms

The subject did not report having a problem with any difficult word during the SI task. Similarly, the analysis of her interpreting recording confirms the same result.

4.3.2.5 Word order

The analysis reflects that there is a problem with the organisation of several sentences in the TT which has effects on the TT structure rather the meaning. Furthermore, the subject noted that the speaker's fast delivery speed affected the organisation of the TL sentence structure. However, the meaning is still preserved, despite the structural differences between the ST and the TT. The analysis shows that the subject did not take the structural differences between the SL and TT into consideration. In other words, she rendered Example 200 "They would prefer to do jobs", which has an SVO sentence structure, into المهاجرون يوافقون على القيام بوظائف ("Immigrants agree to do jobs"), which also has an SVO structure.

Moreover, she interpreted "some of them may not pay taxes", which has an SVO sentence structure, into المهاجرين لا يدفعون ضرائب ("Many of these immigrants do not pay taxes"), which also has an SVO structure. In Arabic, this structure is not favourable as it is not commonly applied. Furthermore, the expert argued that "the speech was fast which made it difficult for me to have a better organization of my sentences".

4.3.2.6 Grammatical Ambiguity

The analysis of the subject's reports reflects that she had problems with rendering grammatically ambiguous structures, as she states: "the sentence structure was ambiguous and not straightforward which made it very difficult to render into proper Arabic sentences". In the same line, the analysis confirms the problematic aspects in rendering the grammatical structures. In the source speech, the pronoun "they" is ambiguous in ("and **they** feel pissed off and ...") because it is not clear to whom it refers to, whether to "Americans" or to "immigrants". Similarly, the SL structure ("as **the mayor of San Francisco believes**")

illustrates the difficulty with grammatical structure when the reported speech in the ST made the subject resort to word-for-word rendering.

4.3.2.7 Passive Voice

The analysis of the subject's feedback in the questionnaire and the subsequent analysis of her interpreting recording reflects there were no problems with interpreting English passive structures into Arabic. The subject successfully interpreted 8 passive structures into Arabic out of a total of 10. The subject used the verb of completion تم ("tamma"), during rendering passive voice, when she produced, respectively, تم تغيير هذا المصطلح ("this terminology has been changed"). On the other hand, other examples were rendered into TT active voice, such as in the interpretation of: "the issue of immigrants will not be solved" into لن نجد حلا لموضوع ("we will not find a solution for"). All these renderings preserve the meaning of the SL passive voice but in TL active.

4.3.2.8 Collocations

Although the expert did not mention in the questionnaire that she encountered problems with interpreting collocations, the later analysis has identified several mistakes that had been committed by the subject when rendering collocated structures. In other words, she succeeded in rendering 4 collocations out of 8 in total. The analysis shows that the subject did not provide an accurate TL collocation for "deleterious effect", as she produced اثار كبيرة جدا ("very big effects"). Furthermore, she misinterpreted "arduous process", because she rendered it into قد تكون غالية ("it could be expensive for me"). On the other hand, she omitted the collocations, respectively, "exert a lot of efforts" and "tough labor".

4.3.2.9 Enumerations

The analysis shows the subject resorted to skipping part of the enumerated items, which relatively does not have negative effects on the meaning of the SL. The subject skipped "a lot of Chinese" while she rendered all other adjectives. Similarly, she skipped "frustrating

and offensive”, “because it is very difficult, frustrating and offensive”, as she produced “because it is difficult and pushes people to be ...”.

4.3.2.10 Modality

The expert successfully managed to render the modal verbs that have particular meanings such as ability, obligation, probability, permission, and the like.

4.3.2.11 Cohesive connectors

The analysis reflects that the subject did have not any problems with rendering the connectors throughout the TT. She managed to adequately provide SL equivalents.

4.3.2.12 Colloquial Terms

The analysis reflects that the subject managed to render the SL colloquial terms into the TT adequately. In other words, no problems have been identified with rendering the colloquial terms during the analysis of her interpretation.

4.3.2.13 Coherence

The analysis reflects that the interpreter provided a coherent TT as no problems have been identified regarding the meaning of the TT. In other words, the interpretation was meaningful as the structure of the utterances was well organised and the ideas were consistent and understandable by the TT reader.

4.3.2.14 Repetitions

The analysis shows that the expert omitted most of the repetitions in the SL. Although these repetitions may have a particular meaning based on the intention of the speaker, the meaning

of the ST is still preserved in the TT. On the other hand, she rendered the repeated structure in other occasions as in (“there should be a solution, there should be a solution”). The subject skipped the repeated sentence “can you believe that” هل ممكن ان تصدقون ذلك and mentioned it only one time. On the other hand, the subject rendered “there should be a solution, there should be a solution” into يجب ان نجد حل لهذه المشكلة (“there should be a solution for this problem”). Furthermore, she skipped the whole repeated structure, “Imagine that yes imagine it”.

4.3.2.15 Redundancy

The analysis reflects that the expert managed to deal with the unnecessary or redundant structures that were suggested in the ST. In other words, the interpreter was able to skip the redundant expressions in the TT. The subject skipped “I remember when I paid a visit to a boyfriend there” and rendered the rest of the sentence.

4.3.2.16 Culture Specific Terms and Structures

The expert interpreter successfully interpreted most of the cultural elements. However, she faced difficulties with rendering some of these elements, as in “we don’t see a lot of full-blooded Americans”, as she produced نحن لا نرى العديد الامريكان (“We do not see Americans do these jobs”). Moreover, the subject hesitated and then skipped part of the sentence and produced cultural equivalents ووصف بلدانهم بانها بلدان حقيرة وفقيرة وسيئة (“bad, poor, and contemptible countries”).

4.3.2.17 Irony

The expert interpreter stated in the questionnaire that she skipped most of the ironic structures. However, she interpreted the example below adequately. The expert interpreter expressed the ST irony properly when she produced يمكنني تشبيه ذلك بطفل يحاول الهرب من شخص يمكنني تشبيهه ذلك بطفل يحاول الهرب من شخص (“I can liken that as a child who tries to escape from someone who throws a water balloon on him in order to fall into the pool!”). She did not miss any part of the structure and included all the important elements to describe the scene.

4.3.2.18 Proverbs

The analysis explains that the expert interpreter did not have any problems with rendering the SL proverbs.

4.3.2.19 Idioms

The analysis reflects that the expert interpreter did not have problems with rendering the idiomatic structures of the ST. In other words, the idiomatic structure, “Once in a blue moon”, if interpreted literally into the TL, it would express a different meaning: "مرة في قمر" "ازرق". Therefore, the expert interpreter successfully provided the functional meaning of this structure when she produced "مرة من الحين والآخر" (“Once from time to time”). Similarly, (“even if pigs fly”) refers to something that is impossible to happen.⁷ This example, if rendered literally, will also reflect a different meaning: "حتى عندما تطير الخنازير". Therefore, the interpreter produced an adequate rendering when she interpreted it into "لن نجد حلا لموضوع المهاجرين بالمستقبل" (“We will not find a solution for the immigrants’ issue in future”).

4.3.2.20 Terms and Structures with Religious Content

The subject provided adequate rendering for the terms and structures with religious content. Indeed, her post-rendering reports confirm these results as she has managed to render these elements appropriately. The interpreter focused on the meaning of the ST and also kept the religious effect of the structure when she rendered it into "كن قويا وشجاعا وسوف يساعدك الله" (“Be strong, and brave and God will help you”).

To sum up, the analysis of the interpretation performed by the expert interpreter during the SI task from English into Arabic shows that she managed to interpret most of the Rich Points. However, several mistakes were committed, particularly during the rendering of problem trigger elements such as acronyms and numbers. Moreover, the interpreter, in several examples, did not consider the structural difference between English and Arabic in terms of word order, but the meaning was preserved in the TT. The interpretation of

⁷ See: <https://dictionary.cambridge.org/es/diccionario/ingles/pigs-might-fly>

collocations was considered a challenge for the expert interpreter when she only rendered half of the Rich Points that referred to collocations, as she resorted to omission and providing inaccurate equivalents, particularly when she followed a literal translation while rendering collocations. Furthermore, the analysis of the expert's rendering almost corresponds with the analysis of her post-interpreting reports, which reflects her awareness of the problems encountered during the SI task.

Table 9 illustrates the problems encountered by the expert interpreter during English into Arabic SI task.

Problem	YES	NO
Proper name		✓
Number	✓	
Acronym	✓	
Unknown word		✓
Word order	✓	
Grammatical ambiguity	✓	
Passive voice		✓
Collocations	✓	
Enumeration		✓
Modality		✓
Cohesive connector		✓
Colloquial term		✓
Coherence		✓
Repetition		✓
Redundancy		✓
Cultural term		✓
Irony		✓
Proverb		✓
Idioms		✓
Religious structure		✓

Table 9: problems encountered by the expert interpreter during SI task from English into Arabic

4.3.3 Interpreting Problems in the Expert's Rendering during the Arabic into English SI Task

In this task, the expert interpreter is rendering from her A language (Arabic) into the foreign language (English). As in the novices' tasks, the interpretations of 20 categories that may refer to potential problems will be analysed based on the researcher's analysis and on the analysis of the expert's post-interpreting questionnaire. Moreover, a table and a chart that illustrate both analyses will be presented at the end of each section. Tables of Expert's renderings in Arabic into English SI task can be found in **Appendix 15**.

4.3.3.1 Proper Names

The analysis of expert's rendering and the analysis of her post-interpreting reports show that the expert interpreter transferred the majority of the SL proper names adequately. However, there are two examples which need to be discussed. In the source speech, فاطمة بنت محمد الفهري ("Fatima Bintu Mohammed Alfihry"), the complete name includes her first name, her father's name, and her family name, and the first and father's names are separated by the word "bintu", meaning "daughter of...", which is a common way when one mentions a full name in Arabic, particularly in Arab gulf countries. The expert interpreter transferred the full name first but she translated the word بنت ("daughter of"), which is normally untranslatable because it is considered part of the name. Moreover, the last name الفهري ("Alfehry") was rendered into "Alfehmi". On the other hand, the full name is repeated twice, which led the interpreter to skip the father and family name and only keep the first name, "Fatma". As with rendering the name, السيدة بيني موردونت "Mrs. Penny Mordaunt", the interpreter skipped the first part of the name and rendered the second name into "Mrs. Bordan" which is not the same SL name.

4.3.3.2 Numbers

The results of both analyses reflect that the interpreter encountered several problems with transferring the accurate number segments into the TT. In other words, 5 segments of numbers were interpreted adequately out of a total of 8. On the other hand, she provided different number segments on two occasions, while she skipped the other one. the SL

number “1975” was rendered inadequately into “1959”. Similarly, she provided “2009” for “2010”. These renderings have negative effects of the TT and, consequently, on the interpreter’s performance.

4.3.3.3 Acronyms

The analysis reflects that the subject resorted to reproducing these elements in the TT. Although these acronyms are of English origin, reproducing them into the TL is not always an appropriate option, particularly when the audience are not acquainted with these acronyms. In other words, the expert reproduced the acronym ILO, حسب منظمة العمل الدولية, ILO when she rendered it into “According to ILO”. Similarly, she used the same strategy with rendering, “تم تعيينها سفيرة لمنظمة التربية والثقافة والعلوم التابعة للأمم المتحدة ”اليونسكو” (“She was assigned as an ambassador in United Nations Educational, Scientific and Cultural Organization UNESCO”), as she produced “she was assigned as ambassador to the UNESCO”. According to Gile (1995), reproduction refers to leaving a word or phrase (typically an unknown name) as it appears in the ST. However, when the interpreter unintentionally repeats a SL word (which is often referred to as interference), this is not considered as strategic behaviour (Bartłomiejczyk, 2006: 161).

4.3.3.4 Unknown Expressions

Both analyses reflect that the expert interpreter managed the interpretation of difficult expressions that were suggested in the ST. She either provided the ST equivalent in the TT or used a general term that refers to the ST expression. The analysis shows that the interpreter successfully provided the accurate equivalents for كالمكنسة الكهربائية والغسالة (like a Hoover or a washing machine). Similarly, she rendered, قادرة على قيادة المحاريث والجرارات (she can drive ploughs and tractors), into the general structure “they contribute in various tasks needed in agriculture”. These renderings are relatively appropriate as they express the meaning of the ST.

4.3.3.5 Word Order

The analyses illustrate that the expert did not encounter problems with producing the accurate TT word order during the SI task. In general, there should be no problem with word order during the interpretation from Arabic into English as the latter has only one type of sentence, which is a verbal sentence that always starts with a noun. The SL structure , بدأت , بدأت “start”), المرأة تعمل بالتدريس “woman starts working in teaching” which starts with a verb, بدأت “start”), that could not be applied to the TL. Hence, she successfully started the TT with the subject المرأة (“woman starts ...”). Similarly, in examples 229, we have: تساهم المرأة (“woman contributes...”). The interpreter appropriately began this rendering with the subject rather than the verb as in the ST. Therefore, she produced: “women contribute greatly to enhance the research.

4.3.3.6 Grammatical Ambiguity

The interpretation by the expert interpreter did not include any syntactically ambiguous structure as she produced clear and unambiguous TL structures. In other words, she did not face difficulties with providing a grammatically clear TT throughout the SI task.

4.3.3.7 Passive Voice

Although the use of passive structure is not common in Arabic, SL speech includes several passive structures that are correctly interpreted into English by the expert interpreter. In other words, she did not encounter problems with rendering the SL passive voice based on the results of both analyses. The analysis shows that the interpreter successfully rendered the SL passive voice عقد الاجتماع (“the meeting has been held ...”) into TL passive voice: “The first convention was held in...”. Moreover, the SL structure تم سن قانون القضاء refers to passive voice that normally consists of the verb of completion تم (“tamma”) plus a noun of the verb. Hence, the subject managed to provide an accurate TL passive structure: “a new regulation was drawn to...”.

4.3.3.8 Collocations

The analyses reflect that the subject managed to render most of the collocations into the TT. She reportedly relied on the context to grasp the meaning of the ST collocations and convey that meaning into the TT. This could cause to provide inaccurate rendering for the collocated structures, particularly when there are ST equivalents in the TT. The subject rendered the collocation اسلط الضوء على (“shed light on”) into “draw the attention to” in which the interpreter applied a different structure with the same meaning of the ST. In the same line, the analysis shows the subject produced “make a lot of efforts” for the ST collocation تبذل المرأة جهودا كبيرة (“Women exerts a lot of efforts”) as the verb “exert” is considered a precise equivalent for تبذل .

4.3.3.9 Enumerations

The results of both analyses explain that the subject managed to render the enumerations during the SI task. In other words, there were no problems identified during the analysis of her rendering regarding the interpretation of the enumerated expressions. The analysis reflects that the expert interpreter managed to render all the ST enumerated expressions: فهي الأم والأخت والزوجة والابنة والعمة والخالة (“She is the mother, sister, wife, aunt, and daughter”). Moreover, she skipped the word الخالة (“maternal aunt”) from the TT as the English word “aunt” signifies الخالة (“maternal aunt”) and العمة (“paternal aunt”).

4.3.3.10 Modality

According to both analyses, the interpreter successfully interpreted the modal verbs that have various meanings such as obligation, permission, ability, etc. The analysis shows the subject expressed the obligation when she rendered يجب علي ان (“I should mention”), and she reflected probability in, يمكن ان يصل إلى (“the percentage of women may be up to”).

4.3.3.11 Cohesive Connectors

The expert interpreter rendered all the SL connectors adequately. In other words, no problems have been identified in the subject's interpretation regarding the interpreting of the connectors.

4.3.3.12 Colloquial Terms

According to the analyses, no problems were identified during subject's interpretation of the colloquial terms. Moreover, these terms are commonly used in an informal way, though they can be applied formally as well. The structure طبخ الاكلات ("cooking meals") is commonly used in an informal way but it is quite understandable in the ST. Hence, the interpreter did not have a problem with rendering this structure into the TT, as she produced "cooking meals". Moreover, another term that is also applied informally, في بالي ("in my mind"), which was rendered adequately by the expert: "in my mind".

4.3.3.13 Coherence

The expert interpreter provided a coherent TT with consistent structures and clear consequence of senses. As stated earlier, there were no problems with rendering the cohesion connectors; the subject also provided a coherent TT without any unclear propositions that could affect the consistency of the TT.

4.3.3.14 Repetitions

The analyses reflects that the expert resorted to skipping some of the ST repeated structures in the TT. In other words, skipping was either part of the repetition or the whole repeated structure. The analysis shows that the expert interpreter only transferred the first part of the repeated name "Fatma" and skipped the rest of the name when she produced "Fatma" for "Fatma bintu Mohammed Alfehry", as it is repeated consecutively in the ST.

4.3.3.15 Redundancy

According to both analyses, the subject successfully managed to deal with the redundant structures that were included in the ST. In other words, she skipped those unnecessary words and structures which, if omitted, do not have negative effects on the TT. The subject resorted to skipping the structures that have no effects on the meaning of the TT. The interpreter skipped كالمجستير والدكتوراه (“master and PhD”), but she produced “high degrees”, which refers to master and PhD degrees. In the same line, the interpreter produced “UNESCO”, which is the acronym of “United Nations Educational, Scientific and Cultural Organization”, rather than rendering the entire organisation’s name, as it is clearly understood if only the acronym “UNESCO” is applied.

4.3.3.16 Culture Specific Terms and Structures

Some cultural terms and structures in the ST share the same identity with other categories such as colloquial terms, proverbs, idioms, etc. The analyses show that the expert interpreter managed to provide accurate cultural equivalents that express the same effects of the SL cultural elements. In other words, no problems have been identified during the analysis of the expert’s interpretation regarding the rendering of the cultural terms and structures.

4.3.3.17 Irony

The results of analysing the subjects’ rendering regarding the interpretation of ironic structure shows that the interpreter skipped this structure in the TT. However, she reportedly stated that she did not have a problem with rendering the irony into the TT. The analysis reflects that the expert interpreter skipped the irony in the ST *ام هو الدهاء الذي وصل إليه البعض؟* (“Is it the adroitness of some people?”), which may have an effect on the TT, particularly when the speaker applies the irony on purpose.

4.3.3.18 Proverbs

The Arabic speech has two proverbs which are adequately interpreted into English. This finding is derived from both analyses and reflects that the interpreter did not encounter any problems with rendering the proverbs during the SI task. The analysis shows subject successfully conveyed the meaning of the SL proverb *خلف كل رجل عظيم امرأة تقف بجانبه في السراء والضراء* (“Behind every great man a woman stands beside him in good and bad times”).

4.3.3.19 Idioms

There was no evidence of problems during the analysis of the expert’s rendering regarding the interpretation of idiomatic expressions during the SI task. This result is confirmed by the subject’s post-interpreting report. In the source speech, the structure *في بناء الأجيال* (“literally: building the generations”), refers to women’s essential part in raising the generations. Hence, the interpreter appropriately provided the meaning of this idiom when she rendered it into “She contributes to the enhancement of generation” rather than interpreting it literally.

4.3.3.20 Terms and Structures with Religious Content

The analysis of the subject’s report in the questionnaire shows the subject encountered problems with interpreting the Quranic verse and the prophet’s Hadith. Furthermore, the analysis of her rendering recording reflects that she resorted to skipping some of these religious expressions and structures, as she hesitates while interpreting these elements. The analysis reflects that the subject used a cultural equivalent when she rendered the Arabic opening structure *السلام عليكم ورحمة الله* (“peace be upon you”) into “hello”, which is a commonly used structure in the TT. However, she rendered *صلاة الفجر* literally into “Alfajir prayer”, while the intended meaning of this structure refers to the early hours in the morning.

Based on both analyses, Table 10 illustrates the problematic and non-problematic elements in the expert’s rendering during SI from Arabic into English.

Problem	YES	NO
Proper names		✓
Number	✓	
Acronym	✓	
Unknown word		✓
Word order		✓
Grammatical ambiguity		✓
Passive voice		✓
Collocations	✓	
Enumeration		✓
Modality		✓
Cohesive connector		✓
Colloquial term		✓
Coherence		✓
Repetition		✓
Redundancy		✓
Cultural term		✓
Irony		✓
Proverb		✓
Idioms		✓
Religious terms and structures	✓	

Table 10: Problems encountered by expert interpreter in SI task from Arabic into English

4.3.3.21 Results of the Expert's Interpretations Regarding the Problems Encountered During Both SI Tasks

1. The expert interpreter managed to render the majority of the Rich Points that were designed for this pilot study. In both tasks, the interpreter showed great proficiency in dealing with rendering different categories of problem triggers such as lexical, syntactic, and cultural elements. Moreover, she was able to overcome or prevent the potential interpreting problems through the use of necessary strategies that helped her to keep the flow of communication between the speaker and the audience.

2. In both SI tasks, there were problems with rendering several categories such as acronyms, numbers, and collocations. This could be related to the difficulties of the Rich Points that refer to these categories in the ST. Furthermore, there were problems with word order and grammatical ambiguity during the English into Arabic task that were due to the structural differences between English and Arabic. In spite of these structural differences, the expert focused on preserving the meaning of the ST. Thus, during the Arabic into English task, problems have been detected with rendering terms and structures with religious content, as there were hesitations and repairs during the rendering of these elements.
3. The expert interpreter was aware of all the interpreting problems encountered during both SI tasks, as her post-interpreting reports match with my analysis of her interpreting recording. This awareness helped the expert to apply the necessary strategies that were applied to solve or prevent the problems. She also understands that conveying the meaning of the ST is the most important aspect. Therefore, she did not report having problems with structural aspects related to the SL and the TL. Moreover, in her attempt to grasp the meaning, she reportedly relied on her knowledge and experience to convey the meaning of the ST from the context.
4. In both SI tasks, the expert interpreter managed the interpretation of the Rich Points professionally. In other words, once the problem was encountered its effect would be limited to a particular item in the sentence without affecting the neighbouring segments in the sentence. Moreover, there were no remarks of false starts and short or long pauses when rendering the Rich Points, in addition to the fixed rendering pace from the beginning till the last segment of the ST.

4.3.4 Expert's Effective Use of Strategies to Solve the Interpreting Problems in English into Arabic SI Task

As in the novices' study, the solutions the expert applied to solve the interpreting problems in both SI tasks will be investigated based on the model of communication strategies proposed by Al-Salman and Al-Khanji (2002). Examples of Expert's use of strategies in both SI tasks can be seen in **Appendix 16**.

4.3.4.1 Strategies Applied by the Expert During the English into Arabic SI Task

The analysis of the expert's strategic behaviour will investigate all the positive strategies (achievement strategies) that were applied to overcome or prevent the interpreting problems. Moreover, those negative strategies (reduction strategies) will also be included.

4.3.4.1.1 Achievement Strategies

The analysis of the expert's rendering shows that the expert applied more achievement strategies that helped her to solve the problems and keep the communication between the speaker and the TT audience flowing.

4.3.4.1.1.1 Skipping

The analysis shows the subject resorted to skipping in order to overcome or prevent the interpreting problems which related to unnecessary repetition, redundant information, and unimportant utterances. Furthermore, this strategy is considered a main strategy that was applied during the SI task from English into Arabic, as it was used 11 times during the whole task. The analysis shows the subject skipped the repeated and redundant structures in order to keep following the speaker.

4.3.4.1.1.2 Approximation

The subject provided approximate equivalents and conveyed a close ST meaning when she could not recall the precise one. Moreover, the analysis reflects that the subject used approximation 9 times during the SI task. The analysis shows that the subject used مشاكل, "issues" instead of "crisis", and "better circumstances" instead of "better life", which relatively reflect the original meaning. She also produced "people" for "immigrants", which also close to the original meaning of the SL expression.

4.3.4.1.1.3 Summarising

The analysis reflects that the subject summarised her rendering when she faced difficulties with long sentences during the SI task. The analysis reflects that the subject summarised this paragraph and interpreted only the gist when she produced ان أمريكا توصف بكونها انها تمثل امتزاج المهاجرين ذلك ان أمريكا تكونت من العديد من العديد من المهاجرين البريطانيين والأيرلنديين والايطاليين والصينيين (‘‘America is considered a mixture of immigrants because America is formed by many British, Irish, Italians, Russians, and Chinese immigrants’’). Moreover, she resorted to summarising when she produced لا اتفق مع ذلك لأنني أرى الامريكان يقومون بالكثير من الوظائف (‘‘I do not agree with this because I notice many Americans can do many jobs’’), particularly when she used ‘‘Americans can do many jobs’’ rather than giving the details of each job as it was stated in the ST: ‘‘They can be cooks; they can be plumbers’’.

4.3.4.2 Expert’s Effective Use of Strategies to Solve the Interpreting Problems in Arabic into English SI Task

4.3.4.2.1 Achievement Strategies

These strategies are the reflections of interpreter’s successful management of interpreting problems.

4.3.4.2.1.1 Approximation

The analysis reflects that the subject did not provide complete equivalents for some of the ST terms and structures. However, she was able to present ST equivalents with approximate meanings to those in the ST. In other words, the expert resorted to applying approximate equivalents 9 times during the SI task. Hence, the strategy of approximation is considered as the main strategy that is used during the SI task from. The expert used ‘‘draw the attention’’ for ‘‘shed light on’’, which relatively express the meaning of the ST. Moreover, the ST number ‘‘49%’’ was rendered into ‘‘50%’’, as it is very close to the ST number.

4.3.4.2.1.2 *Skipping*

The analysis shows that the expert applied the strategy of skipping 7 times during the SI task. The examples below refer to the use of skipping unnecessary information in the TT. The subject skipped *نعم ما يقارب نصف سكان العالم* (“which is about half of the total world’s population”), as she mentioned “49%” earlier. Moreover, she skipped *لمنظمة التربية والثقافة والعلوم التابعة للأمم المتحدة* (“United Nations Educational, Scientific and Cultural Organization”) because she rendered the acronym “UNESCO” instead.

4.3.4.2.1.3 *Summarising*

The results of the analysing the expert’s rendering shows she applied summarisation twice during the SI task. The following examples explain the use of summarisation. The analysis reflects that the subject summarised the rendering when she produced “internationally” for *قبل المنظمات والهيئات الدولية* (“by the international organizations and institutions”). Similarly, she used “women get of higher degrees in various fields” in Example 258 for *حصول الكثير من النساء على الشهادات العليا كالمجستير والدكتوراه في مختلف التخصصات* (“many women obtain Master and PhD degrees in various fields”), which expresses the meaning of the ST rather than rendering every word in the ST.

4.3.4.2.2 *Reduction Strategies*

The analysis reflects that the expert resorted to reduction strategies, particularly literal translation, during the rendering of cultural elements, which has a negative impact on the TT.

4.3.4.2.2.1 *Literal Translation*

The subject resorted to literal translation during the SI task. According to the analysis, 3 examples of literal translation have been identified during the SI task. The subject rendered *شرب الحساء* literally into “drink the soup”, which may not reflect the same meaning of the ST. Similarly, she followed a word-for-word rendering when she rendered *تستقظ منذ صلاة الفجر لتبدأ رحلة التنظيف* (“she wakes up early to start the household chores”) into “at dawn prayer to start with household chores”.

4.3.4.3 Results of the Expert's Solutions for the Interpreting Problems in the Pilot Study

The analysis of expert's solutions for the interpreting problems explains the following:

1. The expert interpreter managed to apply achievement strategies that helped to solve the interpreting problems or even prevent them during both SI tasks. Indeed, strategies such as skipping the unnecessary utterance, providing the gist of the ST, producing an approximate ST equivalent, and grasping the meaning based on the context were clearly detected during the analysis of the expert's interpretations in both SI tasks.
2. The use of reduction strategies that affects negatively on the process of interpreting hardly existed, as only a few examples of literal translation were identified during the SI task from Arabic into English. On the other hand, achievement strategies that supported the communication were applied widely in both SI tasks.
3. The strategy of skipping the unnecessary structures, redundant information and repeated aspects was considered the main strategy that was applied by the expert interpreter during the SI task from English into Arabic. On the other hand, the strategy of approximation, when the interpreter provides an equivalent expression or structure which is close to the SL meaning but not an accurate equivalent, is deemed as the main strategy that was applied by the expert during the SI task from Arabic into English. The interpreting direction may have an effect on the use of strategies, as skipping the unnecessary information from the TT during the English into Arabic task is related to the interpreter's wide knowledge in the TT (native language). Moreover, providing an approximate equivalent in the TT may be associated with the interpreter's background knowledge in the TT (foreign language), in which she may not have all the required information.
4. The expert interpreter relied on her experience and knowledge to grasp the meaning in both SI tasks, particularly during rendering culture specific terms and structures which require comprehension skills that help to provide accurate equivalents during a demanding task like SI.
5. In terms of awareness of interpreting problems, the expert interpreter was aware of most of the interpreting problems as she applied the necessary strategies that help to

keep the communication between the speaker and the audience flowing without affecting the meaning of the ST.

6. Code switching, like other reduction strategies, was not applied by the expert interpreter as she was able to provide adequate MSA during the SI task from English into Arabic. Moreover, in both tasks the expert neither resorted to using incomplete sentences nor applying message abandonment. Moreover, only 2 examples of literal translation were detected during the Arabic into English task, as she did not consider providing accurate ST equivalents.

4.3.5 General Results Derived from the Expert's Pilot Study

The following results can be extracted from both SI tasks that were conducted by the expert interpreter.

- 1- The study shows that the expert interpreter was aware of most of the difficulties she faced during both SI tasks. In other words, her post-interpreting reports regarding the problems encountered during the SI tasks match the analysis of her interpreting recording. This awareness helped her to apply the necessary solutions that led to overcoming or preventing the interpreting problems.
- 2- In both SI tasks, the expert interpreter managed to solve or prevent most of the potential problems that were expected to occur during the interpretation of the Rich Points. This success may be related to her professional management of providing the accurate interpretation, applying the required strategies when problems were encountered or about to occur, and following the speaker's pace.
- 3- In both tasks, there were several problems with rendering numbers, acronyms, and collocations. As for the problems of rendering numbers and acronyms, in some cases the expert mainly resorted to omitting these elements from the TT or conveying different ST numbers and acronyms. Thus, she reproduced the same SL acronym in the TT. It may reflect the difficulties of the ST that was condensed and long. Furthermore, interpreting terms and structures with religious content, particularly during the Arabic into English SI task, was also a challenge for the expert as she

omitted the Quranic verse from the TT and resorted to a literal translation with other segments, which has negative effects on the TT.

- 4- The expert interpreter focused on conveying the meaning of the ST, as it is the most importing aspect in interpreting. Therefore, she did not pay attention to the structural differences between the SL and TL as she reportedly relied on the context to convey the meaning of the ST.
- 5- Hesitations were identified in various cases during both SI tasks, particularly when the expert faced difficulties with rendering some categories such as numbers, acronyms, and terms and structures with religious content. Moreover, she resorted to autocorrection when she realised that she had produced incorrect a rendering; she immediately corrected herself and produced the appropriate rendering.
- 6- Regarding the strategies applied, the expert used more achievement strategies that keep the communication flowing. In other words, strategies such as skipping the unnecessary terms and structures, providing approximate equivalents, and summarising the interpretation that focuses on the meaning were mainly applied by the expert. The use of these strategies helped the interpreter to overcome the difficulties that may hinder the communication and affect the TT. On the other hand, reduction strategies that have negative effects on the interpretation were not identified with the expert's rendering, except for a few examples of literal translation during the Arabic into English task.

4.3.6 Actions to be Taken in the Main Study, Derived from the Results of the Pilot Study

The pilot study has allowed me to make the following changes to the data analysis and the materials that will be applied in the study.

1. The pilot study investigates the lexical, syntactic, and cultural elements that included 20 categories which made the source speeches seem condensed, long, and complicated. Hence, the source speeches of the main study will investigate the same

elements but with a limited number of categories which were among the main problematic categories for the subjects. Having done that the source speeches will seem more compatible with subjects' level particularly the novices. The study will basically investigate lexical elements (proper names, numbers), syntactic elements (passive voice, collocations), and cultural elements (culture specific terms and structures, terms and structures with religious content).

2. The pilot study shows that due to the uncertainty of subjects' reports, particularly the novices as they were unaware of most of the problems encountered during SI tasks, the study will include, in addition to the questionnaire, another retrospective method (asking the subjects post-interpreting questions). This method, thus, will help to collect more concrete data regarding the problems and the strategies applied to solve or prevent these problems and to properly achieve the objectives of the study.
3. The pilot study showed the importance of investigating the quality of the TT by measuring subjects' interpretations in order to be able to perfectly compare the renderings of expert and novice interpreters (product analysis). Hence, Orozco's (2017) model of measuring the interpretations will be applied in the study. On the other hand, the pilot study did not investigate the problem identification, particularly by the novices. Therefore, Ivanova's (1999) model of identifying the cognitive processes that show evidence of problems will be used in the study (process analysis). Furthermore, the nature of inadequate renderings can be discussed to study these inappropriate renderings and their effects on the TT. It is important to combine the study of subjects' renderings (product) with the analysis of the cognitive processes underlying the production of an interpreting (process) of a certain quality as Ericsson (1991: 15) states: "although judges can reliably assess the superior quality of the product, it is difficult to analyse such products in order to identify the measurable aspects capturing the superior quality of the product."
4. As mixed research has approved its validity in the pilot study, the study will apply qualitative analysis of all the data collected from the subjects (interpreting recordings, questionnaires, and post-interpreting questions) using the recommended

models of product and process analyses. Additionally, the study will include a quantitative analysis of counting the number of adequate, improvable, and inadequate renderings with the percentage of each category. Moreover, the number of problems that were related to each cognitive process will be identified and the number of strategies applied by the subjects to solve the problems will be stated in the study.

5. The pilot study basically relied on my analysis of the subjects' interpreting recordings to identify the strategies that were used by the subjects to solve the interpreting problems. This method is applied because the focus was mainly dedicated to investigating the problems. Therefore, it is recommended to include questions within the questionnaire and the post-interpreting questions that are related to the strategies applied with rendering each rich point. As for the analysis of strategies in the pilot study, Al-Salman and Al-Khanjis' (2002) model of communication strategies was applied. This model is used because it was originally applied for the English and Arabic combination in SI. However, the results of the pilot study reflect that it is important to utilise other taxonomies of interpreting strategies, such as those proposed by Gile (1995) and Kalina (1998), due to the following:
 - a) The results of the pilot study show that the subjects have applied strategies which are not included in the model. In other words, strategies such as generalisation, inferencing, reproduction, and omission were not discussed in this model.
 - b) The notion of omission was not clearly identified as it includes incomplete sentences and message abandonment, which relatively refer to omission. Moreover, describing incomplete sentences and message abandonment as strategies is a sceptical issue, as pausing during the interpretation and leaving unfinished sentences will lead to a loss of information and affect the TT negatively.
6. As was reported by both expert and novices, the STs included long sentences, condensed information, a difficult style, and a difficult American accent for the English speech producer. The subjects, particularly novices, seemed exhausted and

fatigued, especially in the last part of the SI task, and they reportedly complained about the long duration of the SI tasks. Moreover, the subjects suffered from the high delivery speed rate (120 WPM), which affected their performance. Therefore, it is recommended to modify both the source speeches of the study through the following:

- a) As recommended earlier, the Rich Points will be simplified to refer to six categories only, namely: proper names, numbers, passive voice, collocations, culture specific terms and structures, and terms and structures with religious content.
- b) Reduce the delivery speed rate to between (100-110 WPM) and recruit a native British language speaker to deliver the English speech so it can be clearly comprehended by the subjects.
- c) Simplify the complicated structures, use short sentences and unambiguous syntax with a consistent style that can be understood by the subjects.
- d) Shorten the duration of the STs from 10 minutes to approximately between 6 to 7 minutes, which can help to better achieve the objectives of the study.

4.3.7 Concluding Remarks of Chapter Four

The aim of this pilot study was to examine the methodology, data collection, and materials used to analyse the interpretations of novice and expert interpreters during two SI tasks from English into Arabic and versa. The following observations can be extracted from this pilot study:

1. The number of categories that referred to potential problems was large, as each speech included Rich Points that referred to 20 categories. This number of categories made the ST seems condensed and difficult not only for novices but also for the expert. The evidence is the problems encountered by the expert during rendering numbers, acronyms, and collocations.
2. The pilot study shows the novices encountered problems with all the categories that referred to the Rich Points. However, lexical elements (acronyms, numbers),

syntactic elements (passive voice, collocations), and cultural elements (culture specific terms and structures, terms and structures with religious content) were among the main problematic elements for novices during both SI tasks. Furthermore, the expert interpreter faced difficulties with rendering the lexical elements (acronyms, numbers), syntactic elements (collocations), and cultural elements (terms and structures with religious content).

3. The methodology of the pilot study reflects the importance of applying mixed methods research, as the qualitative analysis helped to study subjects' interpretations for the Rich Points in a detailed way based on the analysis of their renderings and on the data collected from the subjects (questionnaire). On the other hand, the quantitative analysis reflects the statistics of problems encountered by the subjects and the strategies applied to solve them, which can facilitate the comparison between the two groups.
4. The analysis of the pilot study explains that the novices were not aware of most of the interpreting problems based on their post-interpreting reports (questionnaire). This could justify relying only on the questionnaire to collect data from the subjects is not adequate and there should be another method to acquire more concrete data from the subjects, such as interviewing them immediately after the SI task or asking them post-interpreting questions. In this regard, Olson and Biolsi (1991) suggest interviewing the subjects immediately after the interpreting task elicits general strategies and aspects of experts' general knowledge and provides rich information (see Ivanova, 2000).
5. The pilot study reflects that most of the subjects' interpretations were not completely adequate, as they were close to the ST meaning but could not be considered accurate equivalents. Thus, the structural differences between the ST and the TT were not taken into consideration by the subjects. Hence, comparing the quality of interpretations between experts and novices seems to be difficult, unless we measure the product of interpretations to identify the level of adequacy of the rendering. On the other hand, the pilot study identified the problems, but it did not illustrate the reasons behind these problems. In other words, it is important to investigate the

problem identification based on more concrete data collected from the subjects (questionnaire and the post-interpreting questions).

6. This pilot study shows that there were other strategies that were used by the subjects which have not been included in Al-Salman and Al-Khanj's (2002) model, such as generalisations, inferencing, reproducing the ST expression in the TT, and omission. The notion of omission was not clearly discussed in the model as it might imply an incomplete sentence (leaving a sentence unfinished) and message abandonment (periods of silence), but the model did not describe when the interpreter omits the rich point itself. Moreover, describing the interpreter's inability to continue the interpretation when there is a problem as a strategic behaviour in terms of leaving unfinished sentences and making long periods of silence is a controversial issue.

7. Both the expert and novices complained that both STs of the pilot study were characterised by long sentences, condensed information, a difficult style, and a long duration. Moreover, most of the novices could not complete the rendering of the last part of the source speech as they seemed fatigued and exhausted. They also reportedly faced difficulties with understanding the American accent of the speaker.

CHAPTER FIVE

ANALYSIS OF EXPERT AND NOVICE RENDERINGS FOR THE LEXICAL, SYNTACTIC, AND CULTURAL ELEMENTS IN SIMULTANEOUS INTERPRETING TASKS

This chapter is based on the results of the pilot study, which recommends studying the same elements that were investigated in the pilot study but limiting the categories that were represented by the Rich Points. Hence, the study will focus on the expert and novice interpreters' renderings for the lexical elements (proper names, numbers), syntactic elements (passive voice, collocations), and cultural elements (culture specific terms and structures, terms and structures with religious content).

Starting with the experts' study, a product analysis will be carried out through measuring subjects' interpretations of the Rich Points based on Orozco's (2018) interval scale. In this scale, subjects' renderings for the six categories will be analysed and classified accordingly into "Adequate" (when the interpreter renders the rich point adequately), "Improvable" (when the interpreter provides an inaccurate ST equivalent which is close to the original meaning; his/her rendering requires slight improvement), and "Inadequate" (when the interpreter fails to provide an adequate interpretation for the rich point):

ADEQUATE	IMPROVABLE	INADEQUATE
<ul style="list-style-type: none">The interpreter renders the <i>Rich Point</i> adequately.	<ul style="list-style-type: none">The interpreter provides inaccurate ST equivalent but close to the original meaning. The rendering requires slight improvement.	<ul style="list-style-type: none">The interpreter fails to provide adequate interpretation for the <i>Rich Point</i>.

Thus, the nature of inadequate renderings that were encountered in the analysis of subjects' interpreting recordings will be discussed to identify the causes of these inappropriate interpretations, along with examples from subjects' renderings. Furthermore, based on subjects' post-interpreting reports (questionnaire and post-interpreting questions), problem identification evidence will be analysed.

In this analysis, another retrospective method will be used: asking subjects post-interpreting questions regarding the problems encountered when rendering the Rich Points and the strategies applied to solve these problems. This method is applied because it was impossible to interview the subjects as they conducted the experiment individually from their homes due to the COVID-19 lockdown. The analysis of problem identification will be based on Ivanova's (1999) model, which classifies the causes of the problems into four codes: comprehension, translation, simultaneity of the task, and production. These codes can be divided into different subcodes if reported by the subjects. In the same line, subjects' strategies that were applied when rendering the Rich Points will be identified, analysed, and classified based on the models that match the subjects' strategies, such as Gile (1995) and Kalina (1998). This chapter will conclude with results of each group's analysis and a comparison will be made at the end of this chapter between the results of the two groups.

5.1 Experts' Study

As they were instructed, the subjects started with filling in a pre-interpreting questionnaire in which there were asked general questions about gender, age, experience in SI, and training courses. Then, they conducted the first SI task from English into Arabic. After that, they filled in a post-interpreting questionnaire in which they were asked about the problems encountered when rendering each rich point and the strategies applied to solve these problems. In order to verify subjects' ability to identify the problems during the SI and to acquire more concrete data from the subjects, every subject answered post-interpreting questions which were related to stress, feelings, directionality, problems, and strategies, as it was impossible to interview them because they worked individually from home. Furthermore, they conducted the Arabic into English task following the same steps performed in the English into Arabic task.

Starting with the English into Arabic task, the analysis of experts' interpretations started by measuring their renderings of the Rich Points, the nature of inadequate renderings (based on the analysis of experts' renderings), and then an analysis of problem identification (based on the experts' post-interpreting reports) was performed and is provided below with tables and charts that illustrate the product and process analyses. Moreover, to preserve the anonymity of the participants, experts were given codes ranging from P1 to P5. This part of the experts' study concludes with the results of experts' analysis of the problems encountered with rendering the Rich Points and the strategies used during each SI task.

5.1.1 Analysis of Experts' Renderings During the English into Arabic SI Task

In this part, experts' renderings will be measured and provided with the samples of subjects' post-interpreting reports regarding the interpretations of the Rich Points. The analysis will start with experts' renderings for the proper names.

5.1.1.1 Analysis of Rendering Proper Names

The English speech includes 10 anthroponyms (Marie David, Obama, etc.), 3 toponyms (Egypt, Honduras, San Francisco), and 2 newspaper names (*The New York Times*, *The Washington Post*). The analysis of experts' interpreting recordings shows that experts were able to provide "Adequate" TT renderings for English proper names. There is only one example when P1 resorted to using a more general name, كاليفورنيا ("California"), for the ST proper name "San Francisco", سان فرانسيسكو. Taking into consideration that "San Francisco" is part of California, this interpretation was ticked as "Improvable" as it was not an accurate ST equivalent but close to the ST equivalent.

Moreover, the analysis reflects that the experts successfully conveyed ST names into the TT. Therefore, these renderings were considered "Adequate". These results were confirmed by subjects' reports regarding the interpretation of proper names as they reportedly did not encounter problems with conveying these elements because they were aware of the difficulties that these elements may cause during the SI task. Therefore, they started rendering them once they were uttered by the speaker.

5.1.1.1.1 Analysis of Experts' Reports Regarding the Interpretation of Proper Names

As it was described in the methodological chapter that the analysis of subjects' reports regarding the problems is based on Ivanova's (1999) model. The analysis reflects that only P1 reportedly encountered a problem with conveying the ST name "San Francisco" into the TT. However, he managed to overcome this problem by using the general name "California". Moreover, this subject reportedly related this problem to comprehension issues, particularly recalling the precise SL name. Experts' reports regarding the problems encountered during rendering English names into Arabic is found in **Appendix 17**. Below are several quotes from subjects' post-interpreting reflections regarding the rendering of proper names.

Subject	Report
P1	I think I missed the name San Francisco as I could not recall it but I said California.
P2	I did not encounter any problem with interpreting the names because I understand the difficulties, they cause during SI task.
P3	I did not face difficulties with interpreting the names because I rendered them once uttered by the speaker.
P4	I did not encounter problems with interpreting the names because I focused on them during the SI task.
P5	I did not encounter problems with interpreting the names because most of them are familiar to me.

Table 11: Experts' reports regarding the interpretation of proper names.

The analysis tables of Experts' renderings for the English names can be seen in **Appendix 18**.

Table 12 illustrates the analysis of measuring their renderings for the English names into Arabic.

S.	Adequate	Improvable	Inadequate
P1	9	1	
P2	10		
P3	10		

P4	10		
P5	10		
Total	49	1	
Ratio	98%	2%	

Table 12: Analysis of experts' interpretations of English proper names into Arabic.

It is clear from Table 12 that experts were able to render the English names into Arabic appropriately during the SI task, as the total number of adequate renderings was 49 out of 50 Rich Points (98% of the total Rich Points of names). Besides, only one example was incompletely interpreted as the subject applied a general TT name instead of providing an accurate TT name.

According to the analysis, experts did not face difficulties with interpreting English proper names into Arabic, as they were able to transfer these elements into the TT appropriately. Moreover, they were reportedly aware of the difficulties that names cause during the process of SI when they started rendering the proper names once they were uttered by the speaker. Hence, this strategic behaviour has not only helped experts to overcome the problems of interpreting proper names, but it also prevents these problems from occurring.

5.1.1.2 Analysis of Rendering Numbers

The English speech includes 9 segments of English numbers such as 3 %, 12, 220, 1606, etc. The variety of number segments may affect the level of difficulty. Therefore, different number segments were applied in the ST. A segment is a number unit that may consist of one digit or more, hence the English speech includes several examples of number segments. The analysis of experts' recordings shows the majority of the subjects appropriately conveyed these segments into Arabic. Furthermore, most of the Rich Points that refer to numbers were interpreted adequately into Arabic as describes in the analysis tables in **Appendix 19**. Experts succeeded to transfer “3%” into the TT when most of the subjects rendered this segment appropriately.

P1 provided an inappropriate interpreting when he rendered it into “30%”. Hence, this rendering was considered “Inadequate”, as it affected the SL meaning negatively. In the same line, this subject confirmed facing difficulties with recalling the number as he was involved with processing other segments. Moreover, P4 repaired his rendering when he first said 30% then corrected it by saying “sorry 3%”. In contrast, other experts succeeded in interpreting this segment, as they conveyed the ST equivalent number accurately. Therefore, their renderings were ticked as “Adequate”. The ST number “89.4” has been rendered by experts differently, as two subjects reportedly applied strategies to overcome the difficulties with providing the precise ST number.

P1 used the strategy of approximation when he produced a close number (“89 million”) and P2 applied a general reference: عددًا هائلا (“huge number”). Hence, these interpretations were considered “Improvable”, as they were not completely adequate. Moreover, these two subjects confirmed having problems with interpreting this number and related that to recalling issues. In contrast, other renderings were ticked “Adequate” because they transferred this number appropriately into the TT.

Similarly, the subjects expertly applied strategies to overcome the difficulties with transferring “1606” into the TT. P1, P2, and P3 successfully conveyed this segment appropriately as they precisely conveyed its equivalent into the TT. Therefore, these renderings were ticked as “Adequate”. However, P1 and P5 resorted to applying general expressions to overcome the difficulties of conveying the accurate TT number. In other words, they respectively applied سابقا and في الماضي (“previously” and “in the past”). These renderings were not precise but close to the ST meaning. Therefore, they were considered “Improvable”. In the post-interpreting reflections, these two subjects reported that, due to comprehension issues, they could not provide the accurate ST equivalent.

Only one subject rendered “2009-2017” inadequately, as other subjects provided an appropriate rendering for these number segments. The analysis reveals that experts were able to convey these segments appropriately, except P1, who produced “2018”. This subject reported that he was involved with processing other segments when he has to process these

numbers. Hence, this rendering was ticked as “Inadequate”, as it reflects a different ST number.

5.1.1.2.1 Analysis of Experts’ Reports Regarding the Interpretation of Numbers

Although the experts were able to transfer the majority of numbers into the TT adequately, their rendering reports show several problems that were encountered while conveying the SL numbers into the TT. These problems were reportedly related to comprehension issues, particularly difficulties with hearing the numbers, as 78% of the reports were related to hearing issues. Moreover, one of the subjects reported having problems with rendering the SL number “89.4 million” but, because of her determination and focus, P5 was able to provide an accurate TT number: “I focused and managed to render it accurately. It happens with any number with a point”. Hence, this reported issue is listed under monitoring problems, particularly in mood, when the subject related the problem to emotive self-evaluation of performance, which counted for 11% of the total reports. Experts’ reports regarding the problems in the interpretation of numbers can be found in **Appendix 17**.

Below are some of the experts’ post-interpreting reports regarding the problems with rendering numbers:

Subject	Report
P1	I do not recall some of them because I know numbers are difficult during the SI task.
P2	I missed the number “89.4 million but I remember I generalized it.
P5	I didn’t hear the number “1606” and thought it was 18 not 16 but then I used general structure “in the past”.
P5	I mistook when I said 30 for 3 then I corrected it to 3.
P5	I had a problem with rendering 89.4, but I focused and managed to render it accurately. It happens with any number with a “point”.

Table 13: Experts’ reports regarding the problems of rendering numbers.

Experts showed their ability in conveying SL numbers into the TL during the SI task. In other words, the percentage of adequately interpreted numbers was 84% of the total segments of numbers. Besides, 9% were incomplete renderings that required slight changes

to be adequate, particularly when experts applied the strategies of generalisation and approximation to overcome the difficulties of conveying the precise ST equivalents. More specifically, P1 and P5 interpreted “in 1606” respectively into سابقا (“previously”) and في الماضي (“in the past”). Furthermore, 7% of the total renderings were regarded as “Inadequate” because they conveyed a different ST number, as in the rendering of P1, who interpreted “2009-2017” into “2018”.

S.	Adequate	Improvable	Inadequate
P1	4	2	3
P2	8	1	
P3	9		
P4	9		
P5	8	1	
Total	38	4	3
Ratio	84%	9%	7%

Table 14: Analysis of experts’ interpretations of English numbers into Arabic.

According to the analysis, experts succeeded to convey SL number segments into the TL, as they were mostly able to transfer these segments into the TT appropriately. Thus, the experts reportedly were aware of the difficulties that these segments cause during the SI. Therefore, they expertly used strategies to overcome and avoid these difficulties, such as approximation and generalisation, in addition to experts’ focus on the number segments once they were uttered by the speaker.

It was clear from the analysis of the lexical elements (proper names and numbers) that experts were generally able to transfer these elements in spite of the difficult nature of interpreting these segments. Moreover, experts were fully aware of the difficulties that these elements cause during the SI task. Therefore, they applied strategies that keep the interpreting process flowing, such as processing these segments once they were uttered by the speaker and applying the strategies of generalisation and approximation to overcome the difficulties of providing the precise ST equivalents.

5.1.1.3 Analysis of Rendering Passive Voice

The English speech includes several examples of English passive voice, both when the doer is explicit, as in “the US was colonized by the British”, and when the doer is not explicit, such as “who used to be called illegal immigrants”. The analysis of experts’ recordings shows that they did not face difficulties with interpreting English passive voice into Arabic. In other words, most of the renderings were considered “Adequate” because they provided the meaning of the SL passive voice, which is considered a fundamental element in the interpreting process.

The analysis tables of experts’ renderings for the English passive voice can be found in **Appendix 20**. Experts successfully interpreted “US was colonized by British”, as all of them rendered this structure appropriately. P2 and P3 successfully interpreted this passive structure into Arabic, where they conveyed the accurate meaning when they used the Arabic active *استعمر البريطانيون* (“British colonized the US”). Although P4 and P5 did not start their rendering with a verb, a common structure of Arabic sentences, the meaning was still preserved in these renderings. Similarly, P1 omitted the object “America” and applied a pronoun instead, which was considered adequate, as the meaning of the passive voice was conveyed in the TT.

Although most of the subjects skipped part of the passive structure in “Immigration was regarded as...” they were able to convey the meaning appropriately. P1, P2, and P5 skipped part of the passive structure from their interpretations when they produced *كانت الهجرة تساعد البلدان النامية* (“immigration was helping the developing countries”), but it did not affect the meaning of the ST passive voice. Furthermore, these subjects were aware of applying this strategy as they reportedly indicated relying of the context to grasp the meaning while rendering this structure. Hence, these interpretations were ticked as “Adequate”. In contrast, P3 and P4 successfully interpreted this structure into the TT passive voice *تعتبر* (“is considered”) which reflects their ability to provide a precise TT equivalent. Therefore, these renderings were also ticked as “Adequate”, as they preserved the meaning and the form of the SL passive voice.

The analysis of “Terminology has been changed by Government” indicates that the majority of experts objectively managed to provide adequate renderings. P3 and P5 successfully produced an ST equivalent by adding the verb of completion in the TT (تم, “tamma”), which is one of the methods to render English passive structures into Arabic, as Arabic has no auxiliary verb. Hence, the verb “tamma” is used to render the ST auxiliary verbs “has been” to express passive voice. In the same line, P2 and P4 conveyed the meaning of the passive voice, as they rendered it into active voice with a common structure in Arabic. Hence, all these renderings were ticked as “Adequate”. Besides, P1 resorted to omitting the passive voice in the TT. Therefore, this rendering was regarded as “Inadequate”.

Similarly, experts conveyed the meaning of the ST passive voice “Tens of thousands of immigrants were allowed to live in States”, which were considered adequate renderings. However, the majority of experts did not consider the common TT passive sentence structure which starts with a verb. In other words, 4 subjects started their renderings with عشرات الاف من المهاجرين سُمح لهم (“thousands of immigrants were allowed”). These renderings were ticked as “Adequate” because they preserved the ST meaning appropriately. On the other hand, P3 started his rendering with a passive voice (سُمح, “have been allowed”), which was a successful TT passive rendering, as rendering passive voice into a TT passive voice is a preferable method that translators and interpreters should follow when rendering passive voice (Ghazala, 2008).

As for “It was deemed unfair”, P1 resorted to omitting this structure as he reportedly could not connect it with the previous sentence due to the time limit. Therefore, this rendering was considered “Inadequate”. Other renderings were ticked as “Adequate” since they reflect the meaning of the SL passive voice, as in the interpretations of P2 and P5, respectively: ان اعتبرنا انه من الظلم (“if we consider it unfair”) and وأصبح من غير المنصف ان (“It becomes unfair that”). In the same line, P3 started his rendering with a verb of completion, تم (“tamma”) to follow ST passive structure which includes the auxiliary verb “was”, and P4 managed to provide a passive equivalent, تعتبر ظالمة (“it is considered unfair”).

Moreover, experts interpreted the passive structure “Immigration is considered a problem” appropriately. P1 and P5 reformulated the passive structure and interpreted it accordingly

into active voice: أصبح الامر مزعجا للدول (“It becomes annoying for many governments”) and ان الهجرة كثيرا ما ينظر اليها بوصفها مشكلة (“immigration is considered a problem”), which reflected the meaning of the ST passive voice. Moreover, P2, P3, and P4 conveyed the ST structure accurately into the Arabic passive structure. Therefore, all these renderings were ticked as “Adequate”.

The analysis of “Who used to be called illegal immigrants” shows that experts were able to convey the meaning of this structure into the TT. Two subjects rendered this structure into TT active voice; P1 and P5 rendered it respectively into: هناك من يناديهم (“someone calls them”) and الذين نطلق عليهم (“those who we call”). On the other hand, other experts interpreted this structure into a TT passive voice; P2 and P4 used the structure كانوا يسمون (“they were called”) and P3 applied الذين كان يطلق عليهم (“those who were called”). Although there were differences in the form of the experts’ renderings, the meaning of the ST passive voice was preserved in these renderings and, consequently, they were ticked as “Adequate”.

5.1.1.3.1 Analysis of Experts’ Reports Regarding the Interpretation of Passive Voice

The analysis of experts’ reports regarding the problems in rendering passive voice shows that only one subject reported having problems with rendering it. This is when P3 reportedly stated that he relied on the context when he encountered problems with rendering two of the passive structures, respectively, “It was deemed unfair...” and “The issue of immigrants is frequently addressed in...”. According to the model of analysis of this study, these reports were ticked under comprehension issues, particularly those related to failures to recognise syntactic patterns. Experts’ reports regarding problem identification when rendering the passive voice is seen in **Appendix 17**. In contrast, other reports illustrate experts’ ability to render these elements adequately, as stated below.

Subject	Report
P1	I did not encounter problems with interpreting passive voice because I use it a lot and I sometimes relied on the context to get the meaning.
P2	I tried to grasp the meaning and convey it into Arabic during the interpretation of passive voice.

P3	I relied on the context during the interpretation of passive voice into Arabic.
P4	I did not encounter a problem with rendering passive voice because it is commonly used in English.
P5	I did not have a problem with rendering passive voice because I am accustomed to it.

Table 15: Experts' reports regarding the problems of rendering English passive voice into Arabic.

It is clear from Table 15 below that the experts adequately interpreted English passive voice into Arabic, as the total number of "Adequate" renderings were 38 (95% of the total number of passive structures). On the contrary, 2 renderings were identified as "Inadequate", as this subject resorted to omitting the interpretation of passive structures in the TT.

S.	Adequate	Improvable	Inadequate
P1	6		2
P2	8		
P3	8		
P4	8		
P5	8		
Total	38		2
Ratio	95%		5%

Table 16: Analysis of experts' interpretations of the English passive voice into Arabic.

According to the analysis, experts in our sample did not face difficulties with interpreting the English passive voice into Arabic, as the majority of their renderings adequately expressed the meaning of the ST passive voice. Moreover, experts managed to interpret English passive voice into Arabic passive voice, though it is not common to apply passive voice in Arabic. Very few examples were ticked "Inadequate" when one subject resorted to omitting the passive structure. In the same line, experts reportedly asserted their reliance on the context to grasp the meaning rather than focusing on the structure of the ST passive voice.

5.1.1.4 Analysis of Rendering Collocations

The English speech includes several examples of collocations that were intended to be interpreted by experts during the SI task from English into Arabic, such as “myriads of Africans”, “crowds of undocumented immigrants”, “exert a lot of effort”, “arduous process”, “detrimental effect”, “paid a visit”, and “piece of cake”. The analysis of measuring experts’ renderings indicates that experts successfully interpreted most English collocations into Arabic. Analysis tables can be found in **Appendix 21**.

Most of the subjects successfully managed to render “myriads of Africans”, as they conveyed the TT equivalents appropriately. According to Cambridge Dictionary⁸, the word “myriad” means a huge number of something. The analysis of experts’ renderings for “myriads of Africans” عدد كبير من الافارقة reflects that most of the experts were able to interpret this structure appropriately. In other words, P1 and P5 successfully rendered this collocation, as they produced: عدد كبير من الافارقة (“huge number/s of Africans”). Similarly, P3 rendered “myriads” correctly into عدد كبير من (“huge number of”), but he generalised “Africans” and used ناس (“people”) instead. Thus, P4 applied the strategy of generalisation when he rendered this structure into الكثير من الافارقة (“many Africans”), which preserved the meaning of the SL collocation. Therefore, all the renderings were ticked “Adequate” according to the measuring scale. In contrast, P2 resorted to skipping part of the collocated structure and kept only “Africans”, which was considered an inaccurate rendering and required a slight addition. Therefore, this rendering was ticked “Improvable”.

Experts produced various interpretations for the English collocation “crowds of undocumented immigrants”. According to Cambridge Dictionary⁹, the word “crowd” means “a large group of people who have come together”. The analysis shows that P2 omitted the whole structure, which was considered “Inadequate” as, according to the methodology of this study, omitting the rich point is considered an inadequate interpretation and causes negative effects on the interpreting process. Moreover, P5 provided مجموعة من (“a group of”), which was an inaccurate rendering as it did not reflect the exact meaning of the ST, where “group” does not refer to “huge number”. However, due to the demanding

⁸ See: <https://dictionary.cambridge.org/es/diccionario/ingles/myriad>

⁹ See: <https://dictionary.cambridge.org/es/diccionario/ingles/crowd>

task of simultaneous interpreting, this rendering was ticked “Improvable”, as it required slight changes. On the other hand, P3 successfully conveyed the meaning of the English collocation when he did not provide a specific number for the ST collocation, as he used ... الكثير من (“many of ...”). In the same line, the interpretations of P1 and P4 are considered “Adequate” when they interpreted the ST collocation into هناك عشرات الالاف (“tens of thousands”), as this rendering preserved the meaning of the ST collocation during the SI task, which considers meaning as a crucial part of interpreting process.

The analysis of “exert a lot of effort” indicates that experts were able to produce appropriate renderings. P1 and P2 produced an approximate TT equivalent. However, the meaning of the SL collocation was still preserved. Therefore, the following renderings يجتهدون كثيرا (“work hard”) and يحاولون كثيرا (“try a lot”) were ticked as “Adequate”. Similarly, P3, P4, and P5 were able to render this example adequately when they provided the precise SL equivalent يبذلون جهودا كثيرة (“exert a lot of effort”).

The analysis of “arduous process” shows that most of the experts strategically provided the meaning of the ST collocation. The analysis shows that 4 subjects produced approximate TT equivalents, as P1 and P3 rendered it into عملية متعبة (“cumbersome process”). Similarly, P2 and P4 interpreted this structure into عملية صعبة (“hard process”). These subjects reportedly relied on the context during the interpretation of this example. Furthermore, P5 successfully provided the precise Arabic equivalent when she interpreted the collocated structure into عملية شاقة جدا (“A very arduous process”). Therefore, all these renderings were ticked “Adequate” according to the measuring scale.

Similarly, the majority of the subjects objectively rendered “detrimental effects” into the TT. The analysis indicates that P1 resorted to omitting the collocated structure from his rendering. This subject reportedly stated that he could not recall the exact meaning of this structure. Therefore, he resorted to omitting it, which led it to being ticked “Inadequate”. In contrast, experts were able to convey the Arabic equivalent appropriately when they interpreted it into اثار سلبية (“negative effects”). Therefore, the renderings of P2, P3, P4, and P5 have been marked as “Adequate”.

The analysis of “It is not a piece of cake” shows that experts were able to express the meaning of this structure appropriately. Experts applied the strategy of inference to get the implicit meaning of ST collocation rather than rendering it literally. P1 and P4 provided انها ليست سهلة (“it is not easy”). Similarly, P3 and P5 interpreted it respectively into انها ليست بهذه السهولة and انها ليست بهذه السهولة (“it is not as easy as it is”). On the contrary, P2 expressed the meaning of the ST collocation in a positive way when he produced امرًا صعبًا وصعب المنال (“It is difficult and very difficult to be done”). Therefore, all these renderings were ticked “Adequate”.

5.1.1.4.1 Analysis of Experts’ Reports Regarding the Interpretation of Collocations

Although most of the Rich Points that refer to collocations were interpreted adequately, experts reported problems during the interpretation of these elements. The analysis of experts’ reports shows that most of the problems were due to comprehension issues, particularly failure in selecting the accurate ST equivalents. Thus, comprehension problems represent 69% of the experts’ total reports regarding problem identification. Moreover, 23% of the reports were related to simultaneity of the task, when P1 reported twice that he had problems with rendering the collocations “detrimental effect” and “arduous process”. However, this subject could not remember how he rendered these collocations. Hence, they were detected as unanalysed problems. In the same line, P5 reportedly related the delay in TL product to problems in translation when rendering for the SL collocation “crowds of undocumented people”.

Analysis table of experts’ reports regarding the problems of rendering collocations is found in **Appendix 17**. Below are some of the experts’ post-interpreting reports regarding the problems of rendering SL collocations.

Subject	Report
P1	I relied on the context to get the meaning of the ST collocation and conveyed it in the TT.
P2	I did not think I encountered a problem with interpreting collocation structures because I based my rendering on the meaning rather than focusing on the form.

P3	I think I encountered problem with rendering collocated structures but I do not know why.
P4	I did not encounter problems with rendering collocations because I rely on the context during the SI task.
P5	I had to render “a crowd of undocumented people” in a longer form in Arabic, but when it was mentioned again, I used a short Arabic form which I did not like that much.

Table 17: Samples of experts’ reports regarding the interpretation of English collocations into Arabic.

Table 18 illustrates the measuring analysis of experts’ renderings for the English collocations into Arabic.

S.	Adequate	Improvable	Inadequate
P1	6		2
P2	6	1	1
P3	8		
P4	8		
P5	7	1	
Total	35	2	3
Ratio	87.5%	5%	7.5%

Table 18: Analysis of experts’ interpretations of English collocations into Arabic.

Experts did not face difficulties with interpreting English collocations into Arabic, as the number of “Adequate” renderings was 35 (87.5% of the total number of collocations). In addition to this, 2 renderings (5% of the total renderings of collocations) required slight changes to be considered adequate. In contrast, 3 interpretations (7.5% of the total number of collocations) were identified as “Inadequate”, particularly when the experts resorted to omitting these structures from the TT.

According to the analysis, experts applied their experience of grasping the meaning of collocated structures and expressed that in their renderings, which helped to prevent the problems of providing an accurate ST equivalent. Moreover, they were able to apply

strategies such as approximation and skipping to overcome the problems of producing the accurate TT collocations. Experts were basically able to convey the meaning of syntactic elements, passive voice, and collocations during the SI task into Arabic. Some of these interpretations were appropriate but required more improvements such as paying attention to Arabic common word order during the interpretation of English passive voice and providing the accurate collocations if they are already available in the TL.

5.1.1.5 Analysis of Rendering Culture Specific Terms and Structures

The English speech included several expressions and structures that were specific to English culture such as “hello”, “immigration”, “feel at home”, “bloody documents”, “selling hot-dogs”, “melting pot”, “full blooded Americans”, “hell”, “boyfriend”, and “lion’s share”. The analysis of experts’ renderings for the English cultural terms and structures into Arabic reflects experts positively managed the interpretation of these elements appropriately. Analysis tables of experts’ renderings for the culture specific terms and structures can be seen in **Appendix 22**. Experts produced various interpretations for some cultural expressions and structures, such as “feel at home”.

It is clear from the literature that cultural expressions and structures cannot be interpreted literally, but a cultural equivalent must be provided (Nida, 1964: 219). The analysis of the above example shows that the majority of experts managed to interpret them and convey the ST meaning appropriately as they applied the strategy of inferencing to acquire the accurate meaning of this cultural structure. In other words, P2, P3, and P4 provided the intended meaning of the SL term منازلهم (“homes”) when they rendered it into “homeland” rather than rendering it literally. Therefore, these renderings were ticked as “Adequate”. Besides, the interpretation of P5 was considered as “Improvable” because she provided بلدان المقصد هي منزلهم وموطنهم (“The receiving countries are their homes and their homelands”). This subject used a literal translation when she interpreted “home” into منازلهم (“houses”) and then added وموطنهم (“their home country”). In contrast, P1 resorted to omitting this structure from the TT. He reportedly relied on the context to provide the meaning, which led him to omit this structure. Hence, it was marked as “Inadequate”. The analysis of another example, in this case “melting pot”, shows that the majority of experts were able to provide the ST equivalent appropriately.

A “melting pot” is a place where many different people and ideas exist together, often mixing and producing something new¹⁰. This cultural structure has an Arabic equivalent which is بوتقة الانصهار. The analysis shows that most experts successfully provided an appropriate ST equivalent. Therefore, the renderings of P2, P3, P4, and P5 were ticked as “Adequate”. However, only P1 reproduced the cultural structure in the TT ميلتتك بوت (“melting pot”). This rendering was ticked as “Improvable” because it is not commonly used in the TT context. Hence, considering this expression as a loan word may justify resorting to reproducing it in the TT.

Another cultural structure that was adequately rendered by experts was “bloody documents”. According to Cambridge English Dictionary¹¹, the cultural expression “bloody” means anger or to emphasise what you are saying in a slightly rude way. In the English speech, “bloody documents” refer to those official documents that permit their holder to stay legally in the hosting country. The analysis reflects that the majority of subjects were able to provide SL equivalents appropriately, in addition to inferring the meaning of the ST cultural expressions rather than rendering them literally. Therefore, the renderings of P1, P2, P4, and P5 were ticked as “Adequate” when they interpreted this structure into وثائق رسمية (“official documents”). On the other hand, P3 followed this structure literally when he produced الوثائق اللعينة (“damn documents”), which was ticked as “Inadequate”.

The analysis of “selling hot-dogs in the street” shows that most of experts successfully rendered this structure into the TT. P1 reportedly stated that he could not recall the meaning of “hot-dog” in Arabic. Therefore, he omitted this structure from his rendering. On the other hand, P2 and P3 were able to appropriately provide the ST equivalent when they produced يبيعون النقانق في الشوارع (“they sell hot dogs in the street”). Further, P4 successfully applied the strategy of generalisation and conveyed the intended meaning of the ST اطعمة (“food”). Therefore, these renderings were ticked as “Adequate”. Besides, P5 resorted to reproducing the cultural expression in the TT and applied هوت دوغ (“hoot doog”). This subject reported that she could not recall the TT equivalent. Therefore, she preferred to reproduce it in the

¹⁰ See: <https://dictionary.cambridge.org/dictionary/english/melting-pot>

¹¹ See: <https://dictionary.cambridge.org>

TT. This rendering was ticked “Improvable”, considering it as a loan word that can be applied in the TT.

The analysis of “the lion’s share” shows that all experts succeeded to interpret it appropriately. The use of English cultural structures in the original speech refers to the large number of immigrants who live in the US as compared with other countries. The analysis reflects that all experts were able to positively convey the SL equivalent. Therefore, all the renderings were ticked as “Adequate”. Most experts also positively managed to interpret the SL cultural expression “boyfriend” into the TT. P1 resorted to omitting this structure in the TT, so it was considered “Inadequate”. This subject reportedly thought it was redundant to mention this information and then he decided to skip it. On the other hand, P2, P4, and P5 were able to provide an accurate equivalent: صديقي (“my friend”), in addition to P3, who provided another TL expression which has the same ST meaning: رفيقي (“my comrade”). Therefore, these renderings were ticked as “Adequate”.

The analysis of “hell” shows that most of the subjects interpreted it appropriately. P5 omitted this cultural term from his rendering. Therefore, it was ticked “Inadequate”. On the other hand, all other experts succeeded to render it when they produced الجحيم (“hell”), which led these renderings to be considered “Adequate”. Experts likewise positively managed to render “Full-blooded Americans”, as they conveyed the meaning appropriately: P1, P2, P3, and P4 skipped “full-blooded” from their renderings, but the meaning was still preserved. Therefore, these renderings were ticked “Adequate”. These subjects reportedly related this issue to their reliance on the context to grasp the meaning and convey it in the TT rather than interpreting it literally. Moreover, P5 successfully inferred the precise equivalent when she rendered this structure into الاميركيين الأصليين (“original Americans”), which reflected the accurate meaning of the ST cultural term.

5.1.1.5.1 Analysis of Experts’ Reports Regarding the Interpretation of Cultural Terms and Structures

Although most of the *Rich Points* that refer to cultural terms and structures were interpreted adequately, the subjects reported problems with rendering these elements. The reports were

varied, as 8 reports were those problems that were resulted from monitoring aspects. In other words, those unanalysed problems counted 38% of the total reports. Another subject (P5) reportedly considered the problems were due to translation, particularly problems in accessing a (number of) TL rendition, as approximately 29% of the total reports were related to this aspect. In the same line, P4 and P5 reportedly related the problems to comprehension issues, particularly hearing the SL cultural terms and structures, which counted for 19% of the total reports. Furthermore, 3 subjects considered failure in selecting the appropriate cultural equivalents as the causes of the problems, as 14% of the total reports referred to this kind of issue.

Experts' reports regarding the problems in the interpretation of English cultural terms and structures into Arabic can be seen in **Appendix 19**. Obviously, experts reported their intention to express the meaning rather than relying on the words. Below are some of these reflections.

Subject	Report
P1	I do not remember saying most of the cultural terms and structures.
P2	I found the cultural structure “melting pot” hard to render the meaning properly even though I know its meaning and connotation.
P3	I interpreted most of the cultural expressions based on the context.
P4	I am not sure if I heard the cultural terms “bloody documents” and “full blooded properly.”
P5	I kept the cultural structure “hot dog” as hoot doog because I didn't remember the Arabic equivalent.

Table 19: Samples of experts' reports regarding the interpretation of English cultural terms and structures into Arabic.

Table 20 shows the measuring analysis of experts' renderings for the English cultural terms and structures into Arabic.

S.	Adequate	Improvable	Inadequate
P1	4	1	3
P2	8		
P3	7		1
P4	8		
P5	5	2	1
Total	32	3	5
Ratio	80%	7.5%	12.5%

Table 20: Analysis of Experts' Interpretations for English Culture Specific Terms and Structures into Arabic.

It is clear from Table 20 that experts were able to interpret English cultural terms and structures appropriately, as the percentage of adequate renderings was 80% out of the total number of cultural expressions. Besides, 7.5% were inaccurate renderings that required slight changes. However, the experts were not able to interpret 12.5% of the total number of these elements, as they resorted to omitting these structures from the TT. According to the analysis, experts were able to interpret most of the English cultural terms into Arabic, as they were able to convey TT equivalents appropriately. Besides, few examples required some improvements when the subjects reproduced the ST cultural terms in the TT, as in *مِلْتِينِك بَوْت* (“melting pot”) and *هُوت دوك* (“hoot doog”). Moreover, the experts reportedly resorted to skipping the cultural terms and structures when they thought they were redundant, as they repeatedly stated that relying on the context was the best method to render the cultural terms and structures rather than following a word-for-word rendering.

5.1.1.6 Analysis of Rendering Terms and Structures with Religious Content

The English speech includes various terms and structures with religious content, such as “sin”, “heaven”, “saint”, “bishop”, “land of milk and honey”, or “be strong and let your heart take courage, all you who wait for the LORD!”, “serve in churches during Sunday’s mass”. Analysis tables of experts’ renderings for the terms and structures with religious content can be found in **Appendix 23**. Most of the experts managed to render “denounced as a sin” into the TT, as they positively conveyed an ST equivalent. P1 resorted to omitting this structure from his rendering. This subject reported that he faced difficulties with

interpreting this structure as he could not recall its meaning during the interpreting process. Hence, this rendering was ticked as “Inadequate”. In contrast, all other experts successfully provided an ST equivalent as they produced خطيئة (“sin”). These renderings were ticked as “Adequate” because they provided a TT religious term that preserves the religious impact of the ST.

The analysis of “heaven” indicates that all the subjects were able to convey the meaning of this term into the TT appropriately. The word “heaven” means: “in some religions, the place, sometimes imagined to be in the sky, where good people are believed to go after they die, so that they can enjoy perfect happiness” (Cambridge English Dictionary)¹². The use of the term “heaven” in the English speech implies that immigrants consider emigrating to a place like the US is like going to heaven. Therefore, the interpretation of the term “heaven” is resilient and can take a pragmatic reference based on the context. Accordingly, the analysis of measuring experts’ renderings shows that P1, P2, and P4 conveyed a TT equivalent appropriately when they inferred the intended meaning of this structure and produced, respectively: حلم (“dream”), امر صعب وصعب المنال (“it is difficult and even impossible thing”), and تبدو فرصة رائعة (“It seems a great opportunity”). The renderings of P3 and P5 were also considered “Adequate” because they reflected the meaning of the ST religious term as they rendered it literally into جنة (“paradise”). Hence, all these renderings were ticked as “Adequate”.

The following example, “the patience of a saint”, means an immense and unyielding degree of patience, especially in the face of problems or difficulties (The Free Dictionary)¹³. Hence, interpreting this structure required transferring the meaning rather than interpreting it literally. Experts tackled the rendering of this structure differently, as P1 and P2 resorted to omitting the whole structure, which was considered “Inadequate”. On the other hand, P3 added بجد (“hard”) to create يعملون بجد وصبر قديس (“work hard with a saint’s patience”), which was regarded as “Adequate” because it relatively reflected the meaning of the religious expression. However, P4 skipped the religious expressions and kept the rest of the structure: يعملون بصبر (“work with patience”). Furthermore, this subject reported that he

¹² See: <https://dictionary.cambridge.org/es/diccionario/ingles/heaven>

¹³ See: <https://idioms.thefreedictionary.com/the+patience+of+a+saint>

skipped the religious expression because he could not recall its equivalent in the TT. This rendering was ticked as “Improvable” because it was an incomplete rendering. Besides, the interpretation of P5 which adequately conveyed the meaning of ST by providing a TT religious equivalent ملائكة (“angels”).

Similarly, the analysis of the religious extract in “Be strong, and let your heart take courage, all you who wait for the LORD!” shows that experts were able to successfully convey the meaning into the TT. The analysis of the above example, an extract from the Bible (Psalm 31:24), indicates that all experts successfully reflected the implicit meaning of this structure into Arabic when they expressed the encouraging nature of this extract into the TT. The subjects mainly summarised this extract in their renderings, as they were able to express the meaning properly. Consequently, P1, P2, and P4 used the imperative mood as in the ST when they started their renderings, respectively, with كونوا اقوياء and كونوا شجعان (“be strong” and “be brave”). Meanwhile, P3 and P4 started their rendering respectively with ان يبقوا شجعان (“they should stay powerful”) and انهم يجب ان يتحلوا بالشجاعة (“they should stay powerful”). These differences in the renderings of this structure have not affected the meaning of the ST. Therefore, all these interpretations were ticked “Adequate” based on the interval scale.

Experts were also able to render the meaning of “serve in churches during Sunday mass” into TT adequately. The ST religious structure consists of two parts; the first is “serve in the churches” and the second part is “Sunday mass”. The analysis of measuring experts’ rendering indicates that P1 and P3 used يخدمون في الكنائس (“they serve in churches”), P2 applied يقومون بمساعدة الكنائس (“help the churches”), P4 rendered it into يعملون في الكنائس (“work in the churches”), and P5 interpreted it into يحظرون الكنائس (“attend the churches”). In contrast, P1, P2, and P4 used يوم الاحد (“Sunday” for “Sunday mass”), while P3 and P5 interpreted it into قداس الاحد (“Sunday mass”).

All these renderings were ticked as “Adequate” because they conveyed the ST meaning appropriately. Experts provided accurate renderings during the interpretation of “the land of milk and honey” into Arabic. The above example refers to a phrase in the Bible: “a land flowing with milk and honey” which signifies a very favourable context. According to

Merriam-Webster's definition¹⁴, this phrase means "a place where there is plenty of food and money and life is very easy". Many immigrants thought that America was "a land of milk and honey" where they can achieve their goals in life. The analysis shows the majority of experts were able to convey the ST meaning. Therefore, 4 renderings were ticked as "Adequate" when P1, P3, and P5 conveyed the ST equivalent accurately: أرض الحليب والعسل ("land of milk and honey"). In addition, P4 inferred the implicit meaning of the ST when he produced أرض الفرص ("land of opportunities"). On the other hand, the interpretation of P2 was considered "Inadequate" because she produced a meaningless word, الملبن "malban", and also hesitated during the interpretation.

The analysis of "I remember the words of a bishop" shows that the subjects expressed different renderings. The analysis indicates that most of the subjects produced incomplete renderings, as they applied strategies to overcome the difficulties of rendering this structure. P1 produced an approximate term قسيس ("priest"), which is also a religious title, P2 applied a general structure احد يوصي ("one advises ..."), and P5 applied a general structure أحد رجال الدين يقول ("a clergyman said"). These renderings were ticked as "Improvable" because these renderings were close to original meaning but they required slight changes. On the contrary, P3 and P4 successfully provided the TT equivalent when they produced اسقف ("bishop"). Therefore, these rendering were ticked as "Adequate".

5.1.1.6.1 Analysis of Experts' Reports Regarding the Interpretation of Terms and Structures with Religious Content

According to experts' reports regarding the problems of rendering terms and structures with religious content, the main problematic aspect is comprehension issues, particularly failure in selecting the appropriate equivalents, as 36% of the reports were related to this aspect, in addition to approximately 5% of reports which were related to understanding the SL religious terms and structures. In the same line, several reports refer to the problems in translation, particularly failure in finding an appropriate ST equivalent and in accessing a (number of) TL rendition for an SL religious content segment (23% of the total reports). Similarly, 5 reports (23% of the reports) were detected as problems related to monitoring

¹⁴ <https://www.merriam-webster.com/dictionary/land%20of%20milk%20and%20honey>

aspects, particularly unanalysed problems and problems that were due to emotive self-evaluation of performance. Furthermore, 3 reports (14% of the total reports) were also related to problems in simultaneity, particularly problems created by high SL input relative to subject's individual output rate.

Experts' reports regarding the problems of rendering English term and structures with religious content into Arabic can be found in **Appendix 19**.

Below is a selection of feedback as reported by the experts regarding the interpretations of terms and structures with religious content.

Subject	Report
P1	I simplified the meaning when I faced difficulties with interpreting religious structures.
P2	Some examples were difficult to understand like 'land of honey and milk', but I think literal translation was appropriate.
P3	I interpreted the religious content structures relying on the context.
P4	I managed interpreting religious structures relying on my experience as I focused on conveying the meaning of these structures rather than on the form.
P5	with some examples, I think I did not really get quite well as my lack of knowledge of the Holy Book, the Bible I mean.

Table 21: Samples of experts' reports regarding the interpretation of English terms and structures with religious content into Arabic.

Table 22 describes the analysis of experts' renderings for the terms and structures with religious content.

S.	Adequate	Improvable	Inadequate
P1	4	1	2
P2	4	1	2
P3	7		
P4	6	1	
P5	6	1	

Total	27	4	4
Ratio	77%	11.5%	11.5%

Table 22: Analysis of Experts' Interpretations for English Terms and Structures with Religious Content into Arabic.

It is clear from Table 22 that experts successfully managed to interpret the religious terms and structures, as the number of "Adequate" renderings was 27 (77% of the total interpretations). Besides, 4 interpretations (11.5% of the total interpretations) required very few improvements to be accurate renderings. In contrast, 4 renderings (11.5% of the total interpretations) were inadequately interpreted, which mostly resulted from omitting these structures. According to the analysis, experts generally did not face difficulties with interpreting terms and structures with religious content because they focused on conveying the explicit and implicit meaning of these structures, in addition to applying literal translation when it was required. In other words, the subjects expertly dealt with rendering these aspects as they applied strategies such as approximation, inferencing, and generalisation. Moreover, they reportedly asserted relying on the context to grasp the meaning of the religious expressions and structures, and express them in the TT.

The analysis of measuring cultural elements, culture specific terms and structures with religious content, shows that experts understand the difficulties of interpreting these aspects during SI, as they relied on the context to infer the meaning rather than providing word-for-word renderings. Moreover, they professionally applied strategies that helped them to overcome or even avoid the difficulties. However, mistakes were identified when experts interpreted culture specific terms literally and also when they resorted to omitting these terms entirely from the TT.

Table 23 shows the analysis of experts' interpretations for the six categories according to the interval scale during the SI task from English into Arabic.

Category	S.	Adequate	Improvable	Inadequate
Proper names	P1	9	1	
	P2	10		
	P3	10		
	P4	10		
	P5	10		
Total		49	1	
Numbers	P1	4	2	3
	P2	8	1	
	P3	9		
	P4	9		
	P5	8	1	
Total		38	4	3
Passive voice	P1	6		2
	P2	8		
	P3	8		
	P4	8		
	P5	8		
Total		38		2
Collocations	P1	6		2
	P2	6	1	1
	P3	8		
	P4	8		
	P5	7	1	
Total		35	2	3
Cultural terms and structures	P1	4	1	3
	P2	8		
	P3	7		1
	P4	8		
	P5	5	2	1
Total		32	3	5
Terms and structures with religious content	P1	4	1	2
	P2	4	1	2
	P3	7		
	P4	6	1	

	P5	6	1	
Total		27	4	4
Total Categories		219	14	17
Total Ratio		88%	5.5%	6.5%

Table 23: Analysis of experts' renderings for the six categories during SI task from English into Arabic.

It is clear from table 23 that experts managed to interpret the lexical, syntactic, and cultural aspects during the SI task from English into Arabic, as the total number of adequately interpreted segments was 219 (88 % of the total Rich Points), in addition to 14 segments (5.5% of the total Rich Points) which were incompletely interpreted but had a close SL meaning. In contrast, the total number of inappropriate interpretations were 17 (6.5% of the total Rich Points), which reflects that the experts did not face significant difficulties with the interpretation of these categories during the SI task from English into Arabic.

5.1.1.7 Nature of Experts' Inadequate Renderings Identified During the SI Task from English into Arabic

In this section, the inadequate renderings that were detected when measuring the experts' renderings will be analysed based on the researcher's analysis of the experts' interpretations. The objective of analysing the nature of inadequate renderings is to describe and understand these inadequate renderings that have a negative impact on the TT. All examples that show the nature of Experts' inadequate renderings during the SI task from English into Arabic can be found in **Appendix 24**.

5.1.1.7.1 Nature of Inadequate Renderings of Proper Names

The analysis of experts' renderings and their post-interpreting reflections regarding the interpretation of proper names reflected that there were no inadequate renderings among the interpretations of experts. The absence of inadequate renderings is probably related to experts' vast experience to expertly apply strategies to overcome or even avoid the difficulties of rendering proper names. Moreover, experts indicated in their post-interpreting

reports that they were aware of the difficulties that these elements cause during the interpreting task. Therefore, they produced appropriate renderings.

5.1.1.7.2 Nature of Inadequate Renderings of Numbers

Although most of the experts' renderings of the SL numbers were adequately transferred into the TT, there were three examples that were rendered inappropriately. In other words, the same subject committed three mistakes with rendering these segments, as he reportedly confirmed having difficulties with renderings these segments. Moreover, he related these problems to the difficulties of recalling these segments while he was processing other segments. The analysis reflects that P1 rendered "3%" into "30%", which affected the meaning of the ST. Similarly, he inadequately rendered "2009-2017" into "2018", which also reflected a different SL meaning.

5.1.1.7.3 Nature of Inadequate Renderings of Passive Voice

Experts positively managed to render passive voice, as 95% of the Rich Points that refer to passive structures were adequately rendered. However, one subject resorted to omitting the passive voice two times, which made these renderings be considered inadequate.

5.1.1.7.4 Nature of Inadequate Renderings of Collocations

As for rendering collocations, experts positively managed to render the majority of these elements. However, three examples were considered inadequate when the subjects resorted to omitting these structures in the TT. Moreover, these subjects confirmed having problems with rendering these structures, as P1 stated that he could not follow up with the speaker while P2 could not remember the reason for omitting it.

5.1.1.7.5 Nature of Inadequate Renderings of Culture Specific Terms and Structures

According to the analysis of experts' recordings, rendering culture specific terms and structures was considered the main category in which the largest number of inadequate renderings was identified. Furthermore, 5 examples of cultural terms and structures were ticked as "Inadequate", as most of these examples were resulted from omission.

5.1.1.7.6 Nature of Inadequate Renderings of Terms and Structures with Religious Content

The analysis of experts' renderings for the terms and structures with religious content indicates that four examples of these elements were inadequately interpreted. Moreover, three of these examples resulted from omission while the other one was misinterpreted into the TT. Experts resorted to omitting the religious structures from their interpretations, in addition to the rendering of P2 which did not express the SL meaning, as she hesitated and paused when rendering this structure and produced العسل والملبن ال ال ("Al Althe honey and malban"). Furthermore, these subjects reportedly confirmed having difficulties with interpreting these examples, which led them to omit and misinterpret them.

According to this analysis, a few inadequate renderings were identified during experts' renderings for the *Rich Points* that refer to the lexical, syntactic, and cultural elements. The majority of these problems resulted from omitting the Rich Points while others resulted from providing an inadequate TT. Furthermore, experts were aware of the problems they encountered, as they related most of them to recalling issues.

5.1.1.8 Strategic Analysis of Experts' Renderings for the Lexical, Syntactic, and Cultural Elements in Both SI Tasks

The analysis of measuring experts' renderings reflects that the experts interpreted the majority of these elements adequately. They professionally applied the necessary interpreting strategies that helped them to overcome or even avoid the difficulties imposed during the SI task. Thus, the strategies applied by the subjects will be identified and analysed based on the analysis of subjects' interpreting recording and the analysis of subjects' post-interpreting reports (questionnaire and the post-task questions). The identified strategies that

were applied during the rendering of each category will be defined and explained based on taxonomies of interpreting strategies such as Gile (1995), Kalina (1998), and Al-Salman and Al-Khanji (2002). Moreover, examples of subjects' use of strategies and back translation with a table of all the strategies applied during the SI task will be provided at the end of the analysis section of each task.

5.1.1.8.1 Analysis of Strategies Applied by Experts During the English into Arabic SI Task

The analysis of experts' strategies that were applied to solve the interpreting problems and even prevent them will be conducted with each category during the SI task from English into Arabic. Moreover, examples of subjects' use of strategies and their post-interpreting reports will be stated during the analysis. All the examples that reflect experts' use of strategies during the English into Arabic SI task can be found in **Appendix 25**.

5.1.1.8.1.1 Strategies Applied During the Rendering of Proper Names

The analysis explains that experts did not face difficulties with interpreting English proper names into Arabic, except in one single segment. In this analysis, only P1 applied the strategy of generalisation when he interpreted "San Francisco" into "California". Taking into account that San Francisco is part of California, it could be an acceptable solution when the subject could not recall the precise name and used a general one.

The strategy of generalisation, according to Gile (1995: 197), means rendering the SL expression with more general one in the TT. This strategy helps interpreters to overcome the challenges of retrieving the precise SL equivalent in the TT (Chang and Schallert, 2007: 140). Moreover, experts reportedly focused on comprehending the proper names perfectly once they were uttered by the speaker, as they knew the challenges that these elements may cause during the SI task. This supports the claim that expert interpreters, due to their experience in SI, develop specific strategies during the processing of lexical and semantic input, and reproduce and reformulate the information under cognitive pressure (Bajo, Padilla and Padilla, 1998).

P2 applied the strategy of addition when she added مجلة “Journal” to the proper name “Wall Street” to clarify the information for the audience. P2 reported in the questionnaire that she added the word “journal” to the proper name “Wall Street” as she thought it was necessary to make it clear that she was talking about the journal, not something else. Addition is included within the strategy of expansion, which means adding new information that was absent from the ST for the sake of clarification (De Feo, 1993; Li, 2015).

5.1.1.8.1.2 Strategies Applied During the Rendering of Numbers

As they did with rendering proper names, the experts reported in the post-interpreting reflections that they were aware of the challenges of rendering numbers during the SI. Therefore, they tried to interpret these segments immediately after they heard them. Below are several examples of feedback which were collected from experts’ post-interpreting reflections.

P1: “I pronounced them directly”.

P4: “I sometimes have difficulties with interpreting numbers because cognitively speaking, they differ from other speech parts. However, I believe that I managed to interpret them”.

P5: “I had to concentrate; I could have missed one because I usually catch up before the number is given. But sometimes when numbers come after I spend sometimes to interpret a segment it could be on the expense of numbers otherwise; I prepare myself for numbers when I expect them during the speech.”

The analysis shows that experts applied strategies when they faced difficulties with interpreting several number segments. During the interpretation of “3%”, P5 faced difficulties with transferring the precise number, as she first rendered it into “30%” but then she immediately applied the strategy of self-correction and repaired her rendering by saying “sorry 3%”. This subject stated in her post-interpreting reports that she was able to rapidly self-correct her rendering and to avoid committing a mistake. The strategy of repair occurs when the interpreter corrects the interpretation when he/she finds distortions in the interpretation, realises there is a better way of expressing what has been said, or detects contradiction between his/her anticipation and the incoming discourse (Li, 2015).

Two subjects applied the strategy of generalisation when conveying “1606” into the TT. P1 and P2 have used the strategy of generalisation to overcome the difficulties of conveying this number, as they respectively produced سابقا (“previously”) and في الماضي (“in the past”). Similarly, two interpreting strategies were applied by experts to overcome the difficulties of reproducing “89.4 million”. The analysis indicates that P1 applied the strategy of approximation when he produced “89 million” which was close to the original number. The strategy of approximation means the interpreter uses a near equivalent expression when he/she is unable to retrieve the precise ST equivalent in the TT (Kalina, 1998; Al-Khanji et al., 2000; Al-Salman and Al-Khanji, 2002; Li, 2015). In contrast, P2 used a general structure, عددا هائلا (“huge number”), which is a relatively good way of avoiding the difficulties of providing the precise number. Moreover, those two subjects reportedly related the use of these strategies to the recalling issues that prevented them from transferring this number adequately.

5.1.1.8.1.3 Strategies Applied During the Rendering of Passive Voice

As it was clear in the measuring analysis, most of the experts’ renderings for the passive voice were adequately rendered into the TT. However, only two examples were ticked as “Inadequate” when experts resorted to omitting the passive voice in the TT. Hence, no strategic solutions have been clearly identified during the analysis of experts’ renderings.

5.1.1.8.1.4 Strategies Applied During the Rendering of Collocations

As with other categories, experts rendered the majority of collocated structures appropriately. Moreover, in several examples, various strategies were applied by the subjects to cope with the difficulties of interpreting these elements. Appendix K explains experts’ strategies during rendering English collocations into Arabic.

The analysis of rendering “myriads of Africans” shows that most of the subjects used strategies to overcome the difficulties of rendering this structure. P2 resorted to skipping part of the collocated structure and kept only “Africans”. This subject reportedly stated that she resorted to skipping the word “myriads” as she could not provide its Arabic equivalent and she thought the strategy of skipping was the best choice. The strategy of skipping refers

to making desirable omissions of redundant information and unnecessary repetitions (Al-Khanji et al., 2000; Al-Salman and Al-Khanji, 2002).

In the same line, P3 rendered “myriads” correctly into عدد كبير من (“huge number of”) but he generalised “Africans” and used ناس (“people”) instead. Similarly, P4 applied the strategy of generalisation when he rendered this structure into الكثير من الافارقة (“many Africans”), which preserved the meaning of the SL collocation. The strategy of approximation was applied by two subjects during the interpretation of “exert a lot of effort”. P1 and P2 produced, respectively, يجتهدون كثيرا (“work very hard”) and يحاولون كثيرا (“try a lot”), as they focused on conveying the meaning of the ST collocation. Furthermore, these subjects reportedly stated that they relied on the context to express the meaning of this ST collocation. The majority of experts used the strategy of approximation when rendering “arduous process”. The analysis reflects that 4 subjects provided structures which were close to the ST meaning but were not precise equivalents, as P1 and P3 produced عملية متعبة (“tired process”), and P2 and P4 provided عملية صعبة (“hard process”). Furthermore, experts reportedly believed that applying this strategy helped them to overcome the difficulties of recalling the accurate ST equivalent.

The majority of the subjects used the strategy of inferencing during the rendering of “it is not a piece of cake”. The analysis reflected that the experts inferred the meaning from this collocation rather than rendering it literally. In other words, P1 and P4 provided انها ليست سهلة (“it is not easy”) and, similarly, P3 and P5 produced, respectively, انها ليست بهذه السهولة and انها ليست بهذه السهولة (“it is not as easy as it is”). On the contrary, P2 reflected the meaning of the ST collocation in a positive way when he provided امرا صعبا وصعب المنال (“It is difficult and very difficult to be done”). According to Gile (1995 cited in Bartłomiejczyk, 2006: 160), the strategy of inferencing means “reconstructing the segment with the help of the context”, while Kalina (1998, cited in Bartłomiejczyk, 2006: 160) defines it as “trying to reconstruct fragments of the original message which were not heard, not understood or forgotten by the interpreter, on the basis of the context (both preceding and following the gap) or world knowledge relevant to the topic of the speech”. Moreover, the subjects reportedly indicated that they relied of the context to infer the meaning of this collocation.

5.1.1.8.1.5 Strategies Applied When Rendering the Culture Specific Terms and Structures

The analysis reflects that the subjects expertly applied strategies during the interpretation of English culture specific terms and structures. It also shows that the experts reportedly relied on their experience to grasp the meaning from these elements rather than rendering them literally. Most of the subjects used strategies to convey the meaning of “immigrants feel at home” into the TT. P2, P3, and P4 applied the strategy of “inferencing”, as they focused on conveying the meaning of this structure rather than a word-by-word rendering. Hence, they produced, respectively: *العديد من* (“Feel free to do whatever they want”), *المهاجرين يشعرون كأنهم في اوطانهم الاصلية* (“Many immigrants feel like they were at their houses”), and *الكثير من المهاجرين يشعرون وكأنهم في اوطانهم* (“Many immigrants feel like they were at their houses”). On the contrary, P5 added *بلدان المقصد هي منزلهم وموطنهم* (“The receiving countries are their homes and homelands”), as she reportedly wanted to clarify her rendering.

The analysis of “bloody documents” shows that most of the subjects applied strategies to convey the meaning and avoid literal translation. P2 and P4 used the strategy of inferencing to express the meaning appropriately. These subjects reportedly stated, respectively, “at the beginning, I could not understand it but I then depend on the context” and “I do not think I heard it well but I relied on the context”, which reflects experts’ proficiency to grasp the meaning from the context even if they have comprehension issues. In contrast, P5 resorted to skipping the word “bloody” and only convey “documents”, as she reported that “I did not hear the word ‘bloody’ well, therefore, I decided to skip it and only keep the main word ‘documents’”.

The strategies of skipping and inferencing were detected during experts’ rendering of “full-blooded Americans”. The analysis shows most subjects applied the strategy of skipping when they tried to convey the meaning of the ST, as they skipped “full blooded” and only kept “Americans”. On the other hand, P5 used the strategy of inferencing when she successfully produced *الامريكيين الاصيلين* (“original Americans”), which reflects the intended meaning of the ST structure. These subjects reportedly relied on the context when rendering this structure. The analysis of “hot dogs” shows that two subjects used strategies to overcome the difficulties of rendering this expression. P4 applied the strategy of generalisation when he used a general term *الاطعمة* (“food”). Besides, P5 resorted to

reproducing the structure “hot dogs” into the TT, which may be considered acceptable if it is understood by the audience. The strategy of reproduction (Gile, 1995) involves leaving a word or phrase (typically an unknown name) as it appears in the ST. Furthermore, the interpreter repeats what has been said by the speaker in the TT. However, when the interpreter unintentionally repeats a SL word (which is often referred to as interference), this does not count as strategic behaviour (Bartłomieczyk, 2006).

Similarly, P1 used the strategy of reproduction when he could not provide a precise equivalent for “melting pot”. This subject used “melting poot” in the TT without rendering it, which could be adequate if it is understood by the audience.

5.1.1.8.1.6 Strategies Applied During the Rendering of Terms and Structures with Religious Content

Various strategies were applied while rendering the terms and structures with religious content, which reflect the difficulties that exist during the SI task. Moreover, experts reported in the post-interpreting reflections that they applied strategies to overcome and avoid the problems of interpreting. The strategy of inferencing was applied by P4 when he was rendering “the land of milk and honey”. This subject produced *ارض الفرص* (“land of opportunities”) to provide the meaning of the ST rather than following it word by word. In the same line, the expert reportedly stated that “I struggled to find the exact equivalent. I believe I succeeded to convey the meaning”.

The strategy of inferencing was clearly detected when rendering “seems like heaven”. Most of the experts used this strategy to overcome the difficulties of interpreting this structure. In other words, P1, P2, and P4 used the strategy of inferencing when they inferred the meaning and conveyed it in the TT rather than providing a literal translation. Hence, they interpreted this structure, respectively, into *كالحلم* (“it is like a dream”), *امرا صعبا وصعب المنال* (“very difficult act”), and *تبدو فرصة رائعة* (“It seems like a wonderful opportunity”). Moreover, these subjects reportedly focused on conveying the meaning as they relied on the context.

Other strategies were applied during experts’ renderings of “bishop”. The analysis indicates that P1 used the strategy of approximation when he produced *أتذكر كلمات قسيس للمهاجرين* (“I remember chaplain’s words to immigrants”), which is also a religious title but not the

precise equivalent. Similarly, P2 and P5 successfully used the strategy of generalisation when they applied general terms, respectively, سمعت أحدا يوصي (“I heard someone recommends...”) and أتذكر أحد رجال الدين يقول... (“I remember one of the clergymen says”). Thus, they reportedly confirmed having difficulties with providing the precise equivalents. Therefore, they resorted to producing these renderings.

The strategy of summarising was applied by experts to overcome the difficulties of rendering “Be strong, and let your heart take courage, all you who wait for the LORD!” The analysis shows that P1, P2, P4, and P5 summarised this structure and conveyed the gist into the TT. In other words, P1 produced كونوا أقوياء ودع قلبك قوي (“Be strong and let your heart be strong as well”) without rendering all the ST details. There were pauses during the rendering of P2 when she provided ان يبقوا شجعانا وان ينتظروا...مساعدة الرب (“To stay brave and wait...God’s help”). Similarly, P4 encountered difficulties during rendering this structure as there were pauses during his interpretation, however he expressed the meaning of the ST: كونوا شجعان تحلو بالقوة والشجاعة...وإذا صبرتم ستجدون... (“Be brave and get the power and brevity...if you be patient, you will get...”). Moreover, P5 interpreted the meaning of the ST when she provided للمهاجرين انهم يجب ان يتحلوا بالشجاعة والقوة (“Immigrants have to get brevity and power”). The strategy of summarising is also called “compression”, “condensation” and “filtering” (Li, 2015), by which the interpreter tries to use this strategy to cope with long sentences by reducing them to a minimum while preserving the meaning of the message. These subjects, thus, reportedly relied on the context to understand the meaning of this extract.

The analysis of “saint” indicates that three subjects applied strategies to overcome the difficulties of rendering this expression into the TT. P1 applied the strategy of addition when he added the adverb بجد (“seriously”) to his rendering يعملون بجد وصبر قديس (“Work seriously with a saint’s patience”). This subject reported that he wanted to clarify his rendering. P4 used the strategy of skipping when he skipped “saint” but he kept the rest of the structure يعملون بصبر (“work with patience”). Moreover, P5 applied the strategy of inference when she provided a TT religious equivalent, ملائكة (“angels”), which was reportedly due to her reliance of the context.

To conclude, experts applied several strategies that helped them overcome the problems during the SI task from English into Arabic. In other words, the strategy of inferencing the meaning from the context was the main strategy that was applied by experts. This indicates their proficiency to comprehend the meaning even when they face difficulties with providing the precise equivalents. All the strategies used by professionals aim at supporting the communication and positively affect the TT, which mainly focuses on conveying the meaning of the ST.

5.1.1.9 Summary of the Strategies Applied by Experts During the Interpretations of Lexical, Syntactic, and Cultural Elements of the SI Task from English into Arabic

The analysis of experts' use of interpreting strategies that helped them solve and prevent the problems are the following:

1. Experts developed two types of strategies with rendering lexical elements (proper names, numbers). First, strategies that were used to overcome or avoid the difficulties, such as generalisation, approximation and repair. Second, due to their experience in the field of interpreting, experts applied tactics that mainly helped them to avoid the difficulties of rendering lexical elements, such as concentrating on the proper names and numbers during the SI task, and starting the interpretation of these elements once they were uttered by the speaker.
2. Experts applied the strategies of generalisation, approximation, skipping, and inferencing during the interpretation of syntactic elements, particularly collocations. They relied on their wide knowledge and experience to comprehend the context and overcome the problems through the use of these strategies. They used skipping when they thought the meaning would not be affected, as in “myriads of Africans”, which was rendered into “Africans”. They used approximation when they produced an approximate TT collocation, such as “exert a lot of effort”, which was interpreted into “work hard”. They used inferencing when they inferred the meaning from the context, as in “it is not a piece of cake”, which was rendered into “it is difficult and very difficult to be achieved”. Finally, they used generalisation, as in “myriads of Africans” into “a huge number of people”.

3. Various strategies were applied by the experts during the interpretation of cultural elements (culture specific terms, terms and structures with religious content). Strategies such as inferencing were used when experts grasped the meaning from the context, as in “bloody documents”, which was rendered into “official documents”. Addition was used when the subjects added extra information to clarify ideas, such as “with the patience of a saint”, which was rendered into “work seriously with a saint’s patience”. Generalisation was applied when a general expression was used rather than the precise equivalent: “I remember the words of a bishop” was interpreted into “I remember one of the clergymen says”. Approximation was used when an imprecise equivalent was provided: “bishop” was interpreted into “chaplain”. Summarisation was used when the gist of the ST structure was conveyed into the TT: “Be strong, and let your heart take courage, all you” was rendered into “Immigrants have to get brevity and power”. Finally, skipping was used when experts skipped unimportant information: “with the patience of a saint” was interpreted into “work with patience”.
4. According to their post-interpreting feedback and the analysis of measuring their renderings, the experts were aware of the difficulties they faced during the SI task and they had the feeling of their ability to overcome these difficulties through the use of necessary strategies and through applying particular tactics in order to even avoid the problems and prevent committing mistakes.
5. All the strategies applied by experts were positive strategies that keep communication flowing between the speaker and audience and prevented the interpreting problems. On the other hand, experts were also aware of strategies that may have a negative impact on the interpreting such as reproduction, but they applied it in a context where it could be considered a loan word, such as “melting pot” and “hot dogs”.

5.1.1.10 Results of Analysing Experts’ Reports Regarding the Problems Encountered During the SI Task from English into Arabic

As it was clear from the analysis of experts’ renderings, they successfully managed to render most of the Rich Points. However, they reportedly encountered several problems that led

them to professionally apply strategies to overcome these problems or led them to provide inadequate renderings.

1. The experts consider comprehension issues, particularly hearing the Rich Points and understanding them accurately, as the main sources of problems, particularly during the rendering of proper names, numbers, collocations, and terms and structures with religious content. Moreover, the experts reported problems with rendering cultural terms and structures and terms and structures with religious content, but they could not express the causes or the main cognitive processes that led to these problems, which were considered unanalysed problems.
2. The analysis of experts' reports shows that few problems were encountered by the experts during the rendering of proper names and passive voice, as only one subject reported a problem with conveying the names. This subject related that to comprehension issues. Another two subjects encountered problems with rendering the passive voice into the TT, which were also related to comprehending the syntactic differences between the SL and the TL.
3. The experts reported having problems with rendering culture specific terms and structures, but they did not analyse the reasons of these problems, as they mainly relied on the context to provide their renderings. Moreover, problems in translation, particularly problems in accessing a (number of) TL rendition for a SL segment and problems in selecting a contextually appropriate equivalent among a number of retrieved variants were also among the reported causes of providing inadequate renderings for culture specific terms and structures, in addition to comprehension issues such as understanding the ST cultural expression and failure to access the meaning of SL cultural terms, which were also reported by the experts as causes of inappropriate renderings.
4. Rendering the terms and structures with religious content was reportedly the main problematic element for experts, as they reported more problems with this element than other elements. In other words, comprehension issues such as failure to access the meaning of an SL chunk was the main source of problems. Similarly, problems related to translation such as finding the appropriate equivalent and problems in

accessing a (number of) TL rendition for an SL segment were also behind the inadequate renderings. Furthermore, problems were identified by experts which were due to simultaneity of the task and those were related to monitoring aspects as the subjects did not analyse the reasons for the problems.

5.1.1.11 Results of Analysing Experts' Interpretations During the SI Task from English into Arabic

The analysis of experts' renderings of the Rich Points reflects the following points:

1. Experts were able to successfully interpret the majority of lexical elements (proper names, numbers), syntactic elements (passive voice, collocations), and cultural elements (culture specific terms, structures with religious content) into Arabic appropriately, as the total ratio of "Adequate" interpretations for all these elements was 86%. Besides, those "Improvable" renderings that require some changes were 7.5%. In contrast, "Inadequate" renderings registered 6.5% of the total number of the Rich Points. This success seems to be due to the experience that experts have in terms of strategies applied to overcome or even avoid the difficulties.
2. Experts show a high level of proficiency when dealing with interpreting lexical items (proper names and numbers), as various examples of these segments were "Adequately" conveyed into Arabic. In other words, experts understand the difficulties that these segments cause during the SI process. Therefore, they applied strategies such as generalisation and approximation. Furthermore, they expertly resorted to starting their renderings with these segments once they were uttered by the speaker, as they reportedly wanted to reduce the cognitive load that these elements pose during the SI task.
3. The analysis of measuring experts' interpretations for the syntactic elements, passive voice and collocations, reflects that the experts appropriately interpreted these elements. In order to convey the meaning of the ST collocation, experts applied strategies such as generalisation, approximation, and inferencing. They utilized their knowledge, experience, and proficiency to comprehend the context, grasp the meaning, and apply the necessary strategies that achieved the communication and prevented the problems.

4. Experts ideally interpreted cultural elements (culture specific terms and terms and structures with religious content), as the majority of these elements were interpreted appropriately. In other words, experts are aware that cultural elements cannot be interpreted literally. Therefore, they mainly applied the strategies of inferencing, grasping the intended meaning from the Rich Points, summarising, rendering the gist of the cultural structure, and skipping (omitting the unnecessary parts of these structures). Moreover, they reportedly related their success with interpreting cultural elements to their wide knowledge of both cultures and their long-term experience with interpreting between English and Arabic.

5. Expert interpreters reported, in the post-interpreting reflections, that they felt uncomfortable, uneasy, stressed, and confused when they faced challenges during the SI task. However, according to their reports, this kind of feeling was a positive reaction, as wide knowledge and experience enabled them to solve or even avoid these difficulties. Evidence of that is the high rate of “Adequate” renderings as compared with other categories. Moreover, they were aware of the difficulties they faced and the few mistakes they made during the SI task.

5.1.2 Analysis of Experts’ Renderings During the Arabic into English SI Task

As in the English into Arabic task, a product analysis will be carried out on the interpretations of experts, this time from Arabic into English. This analysis will include measuring the subjects’ renderings of the six categories that were represented by Rich Points. In this task, experts render from Arabic (their native language) into English (their foreign language), which may affect the quality of interpretations.

5.1.2.1 Analysis of Rendering Proper Names

The Arabic speech includes both Arabic proper names such as الياس يوسف (“Ilyas Yousif”), فاطمة بنت محمد الفهري (“Fatima Bint Mohammed Alfehry”), زها حديد (“Zaha Hadid”), and non-Arabic proper names such as مكسيكو (“Mexico”), سقراط (“Socrates”), ماري كوري (“Marie Curie”), توكول كرمان (“Tawakel Karman”), ماركريت تاتشر (“Margaret Thatcher”), اليزابيث بلاك ويل (“Elizabeth Blackwell”), and افريقيا (“Africa”). The analysis of measuring experts’

renderings indicates that the experts were able to transfer the SL names into the TT appropriately. The majority of experts successfully conveyed الياس يوسف (“Ilyas Yousif”) into English. The analysis shows that 4 renderings were considered “Adequate” while the interpretation of P1 was ticked as “Inadequate” because this subject produced يازي (“Yazi”). This rendering is completely different from the ST proper name. Moreover, this subject reportedly related this rendering to listening issues.

Experts produced different renderings for the name اليزابيث بلاكويل (“Elizabeth Blackwell”), as two subjects provided incomplete renderings. In this analysis, P2, P3, and P5 successfully reproduced this name into the TT. Hence, their renderings were ticked as “Adequate”. On the contrary, P1 and P4 produced names in the TT that require slight changes, as they provided “Lisa Blackwell” and “Elizabeth Down”, respectively. Therefore, their interpretations were considered “Improvable”. The majority of subjects reproduced زها حديد (“Zaha Hadid”) into the TT adequately. The analysis shows that all the subjects correctly reproduced this name except the interpretation of P1, which was considered as “Improvable” because this subject applied the strategy of generalisation and resorted to “Arab woman” when he could not convey the precise name instead of providing the ST name “Zaha Hadid”.

Most of the subjects transferred سقراط (“Socrates”) into the TT adequately. P5 resorted to applying the strategy of generalisation, as she produced “a Greek philosopher” instead of providing the precise ST equivalent “Socrates”. Therefore, this rendering was considered “Improvable”, as it did not convey the accurate ST proper name in the TT. Other examples of experts’ renderings for the Arabic proper names into English show that the experts adequately conveyed these names into the TT. All the examples of Experts’ renderings of the Arabic names into English can be found in **Appendix 26**.

5.1.2.1.1 Analysis of Experts’ Reports Regarding the Interpretation of Proper Names

The analysis of experts’ reports regarding the problems with rendering proper names reflects that the subjects encountered few problems that were mainly related to different cognitive processes. The reports show that the problems occurred due to simultaneity of the task when there is high SL input as compared with TL output, which caused difficulties for the subjects

to recall the names appropriately. This represents 50% of the reports. Similarly, the same percentage of reports refer to comprehension issues, particularly problems with hearing the SL names. The analysis table of experts' reports regarding the problems with rendering Arabic proper names into English can be seen in **Appendix 17**.

Below are examples of subjects' reports regarding the problems with rendering the proper names.

S.	Report	Back Translation
P1	لم اسمع "الياس يوسف" جيدا	I did not hear "Ilyas Yousif" well.
P1	لم اتذكر "زها حديد" فتجاوزتها	I did not remember "Zaha Hadid". Therefore, I skipped it.
P4	كنت متأخرًا ولم أسمع الكنية. ذكرت الاسم الأول	I was late to catch the full name, therefore; I mentioned only the first name.
P5	لم اتذكر "سقراط" بالانكليزية فذكرت فيلسوف اغريقي	I couldn't remember "Socrates" in English so I said a Greek philosopher

Table 24: Samples of experts' reports regarding the interpretation of Arabic names into English.

It is clear from Table 23 below that the experts managed to convey Arabic proper names into English, as 50 Rich Points (91% of the renderings) that refer to proper names were ticked as "Adequate". Besides, 4 renderings (7% of the total renderings) were regarded as "Improvable" as they were incomplete and required slight improvements in which experts applied the strategy of generalisation to overcome the difficulties of rendering these elements. On the contrary, only one interpretation (2% of the total renderings) was considered "Inadequate" due to reproducing a different ST name.

S.	Adequate	Improvable	Inadequate
P1	8	2	1
P2	11		
P3	11		
P4	10	1	
P5	10	1	
Total	50	4	1

Ratio	91%	7%	2%
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Table 25: Analysis of Experts' interpretations of Arabic proper names into English.

According to the analysis, experts did not face difficulties with interpreting Arabic proper names into English. Thus, they expertly applied strategies such as generalisation when they faced difficulties of rendering the proper names. As in the English into Arabic task, experts reportedly reflected their awareness of the difficulties that the proper names cause during the SI task. Hence, they paid more attention to reproducing these elements appropriately.

5.1.2.2 Analysis of Rendering Numbers

The analysis of experts' renderings reflects that the experts managed to interpret the majority of Arabic number segments into English appropriately.

Experts faced difficulties with transferring "877" into the TT, as three renderings were ticked as "Inadequate". P1, P3, and P5 rendered it into "1877", which were considered "Inadequate" because they reflected a different SL number. These subjects reportedly related that error to their involvement with processing other segments, particularly the proper names that directly preceded this segment and consequently affected the processing of this number. In contrast, the interpretations of P2 and P4 were ticked as "Adequate", where they transferred this segment appropriately into the TT.

The majority of experts did not face difficulties with rendering "2010-2014" into the TT. Only P3 rendered one of these segments correctly while failing to provide an appropriate rendering for another segment, "2010-2013". Hence, this rendering was considered "Improvable". Although "1849" is considered one of the difficult numbers due to its length, most of the subjects positively managed to transfer it into the TT. Only the rendering of P4 was ticked as "Inadequate" because this subject produced the incorrect rendering "1947", which reflected a different SL number. Other analysis tables of experts' renderings for the Arabic numbers into English can be found in **Appendix 27**.

5.1.2.2.1 Analysis of Experts' Reports Regarding the Interpretation of Numbers

As with the rendering of the proper names, experts did not encounter many problems with rendering numbers. The analysis of experts' reports shows that two reports (50% of the total reports) were due to comprehension issues, particularly problems with hearing the SL numbers. Another two reports (50% of the total reports) were related to problems of simultaneity of the task, particularly because of the high SL input relative to subject's individual output rate. The analysis table of experts' reports regarding the problems of rendering collocations can be found in **Appendix 17**. Below are examples of subjects' post-interpreting reports regarding the rendering of numbers.

S.	Report	Back Translation
P1	لم اتذكر 1975 فترجمتها 1977	I did not remember 1975, therefore; I rendered it into 1977
P1	لم اسمع 877 فتجاوزتها	I did not hear 877, therefore; I skipped it
P4	لم اسمع 1849 جيذا وقتلت 1949	I did not hear 1849, therefore; I said 1949
P5	لا اتذكر كيف ترجمة 877	I do not remember how I rendered 877

Table 26: Experts' reports regarding the rendering of Arabic numbers into English.

The analysis shows that the Experts appropriately transferred Arabic number segments into English, as the total number of adequate renderings was 40 (89% of the total numbers) while only one interpretation (2% of the total numbers) was ticked as "Improvable". In contrast, 4 renderings (9% of the total numbers) were considered "Inadequate" because they reflected different segments in the TT. Furthermore, experts reported in the post-interpreting reflections that they did not face major difficulties with interpreting Arabic number segments into English as they were aware of the difficulties that these segments cause during the interpreting task.

S.	Adequate	Improvable	Inadequate
P1	8		1
P2	9		
P3	7	1	1

P4	8		1
P5	8		1
Total	40	1	4
Ratio	89%	2%	9%

Table 27: Analysis of experts' total renderings for Arabic numbers into English.

According to the analysis, experts managed to interpret Arabic number segments into English. However, a few examples of inadequate renderings were identified, which were due to the difficulties in recalling the precise segments. Experts show an ability to render lexical elements (proper names and numbers) appropriately, as most of the *Rich Points* were transferred adequately into the TT. As in the previous task, experts reflect high proficiency with applying the interpreting strategies to overcome or even avoid the difficulties.

5.1.2.3 Analysis of Rendering Passive Voice

Although passive voice is not commonly used in Arabic, the original speech includes several passive structures that were mostly interpreted appropriately by the experts as they relied on conveying the meaning of the passive voice. All the analysis tables of experts' renderings for the Arabic passive voice into English can be found in **Appendix 28**. The analysis of *بدأت المطالبات تتزايد من قبل المنظمات الدولية* (“A law to terminate all forms of violence against women was enacted”) shows that most of the subjects adequately rendered this structure into the TT. Only P1 provide an incomplete rendering for this structure, as he skipped the subject “the international organizations” when he produced “these women rights calls increased”. Hence, it was considered “Improvable”.

In contrast, P3 and P5 rendered this structure into the TT passive voice, as they produced, respectively, “demands for woman’s rights have been increasing by international organizations” and “there has been demands for women’s right by international organizations”. Besides, P2 and P4 managed to convey the meaning when they rendered the segment into the TT active voice, respectively: “demands were on the rights for woman’s rights by international organizations” and “growing calls like the international organizations for ensuring the right of women”. Hence, all the renderings were ticked as “Adequate”.

Similarly, most of the subjects were able to render تم تعيينها سفيرة لمنظمة التربية والثقافة والعلوم التابعة للأمم المتحدة (“She was appointed as an ambassador for UNESCO”) adequately. The analysis shows that the rendering of P1 was considered “Improvable” because it was incomplete, as this subject used the inaccurate verb “hired”, which was inappropriately used in this context as it reflected a different meaning. Furthermore, all other subjects adequately rendered this structure into the TT passive voice: “was appointed”. Hence, these renderings were ticked as “Adequate”.

The analysis of تم اسناد العديد من المناصب المهمة (“many important positions were assigned to women”) indicates that the majority of the subjects managed to render this structure appropriately. The majority of renderings were ticked as “Adequate” because they conveyed the meaning of the ST, as 4 subjects rendered this structure into the TT passive voice. In contrast, the interpretation of P1 was considered “Improvable” because it required replacing the term “ranks” with “positions” to suit the ST meaning: “some very high ranks were assigned to woman”. Other examples of Arabic passive voice were “Adequately” interpreted into English as experts were able to convey the meaning of the ST passive structures in the TT.

5.1.2.3.1 Analysis of Experts’ Reports Regarding the Interpretation of Passive Voice

As it was clear from measuring experts’ renderings regarding the interpretations of passive voice, experts successfully rendered most of these elements appropriately. However, a few reports reflect that the experts faced difficulties with rendering these elements which were mainly unanalysed by the subjects. Furthermore, the analysis shows that 7 reports out of 8 contained unanalysed problems, as the subjects did not remember exactly how they rendered these passive structures because they reportedly focused on conveying the meaning appropriately. In the same line, one subject (P3) related to the failure to access the meaning of a SL passive voice. The analysis table of experts’ reports regarding the problems of rendering passive voice can be found in **Appendix 17**. Below are examples of experts’ reports regarding the interpretation of passive voice.

S.	Report	Back Translation
P1	لا اتذكر كيف ترجمة "عقد الاجتماع الاول"	I do not remember how did I render "the first meeting was held in ..."
P3	ترجمة "بدأت المطالبات بحقوق المرأة تتزايد من قبل المنظمات الدولية" اعتمادا على السياق	I rendered "the demands for ...have been increased by ..." based on the context.
P5	لم اتذكر كيف ترجمة "عدت المرأة"	I do not remember how did I render "the woman was considered ..."

Table 28: Experts' reports regarding the interpretation of Arabic passive voice into English.

Indeed, experts did not face difficulties with interpreting the Arabic passive voice into English, as the analysis shows that 36 interpretations were considered "Adequate" with a percentage of 90%. Besides, 3 renderings (7.5 of the total renderings) were incomplete and required slight changes. On the contrary, only one interpretation (2.5% of the total renderings) was identified as "Inadequate".

S.	Adequate	Improvable	Inadequate
P1	4	3	1
P2	8		
P3	8		
P4	8		
P5	8		
Total	36	3	1
Ratio	90%	7.5%	2.5%

Table 29: Analysis of experts' interpretations of Arabic passive voice into English.

According to the analysis, experts were able to interpret Arabic passive voice into English as they did not face difficulties with expressing these structures into TT. Moreover, experts reportedly indicated that they use passive voice a lot in English which justifies the high number of adequate renderings of passive structures.

5.1.2.4 Analysis of Rendering Collocations

The Arabic speech includes several examples of Arabic collocations, such as أسلط الضوء (“shed light on”), تبذل المرأة جهودا (“woman exerts a lot of efforts”), شرب الحساء (“have soup”), صنع القرار (“in good and bad times”), حصلت جائزة (“won the peace prize”), السراء والضراء (“make a decision”), تشريع القوانين (“legislate decisions”), مراجعة المستشفيات (“visit the hospitals”), and ارتكب أخطاء فادحة (“committed arduous errors”). As for the analysis of rendering collocations, the majority of experts adequately interpreted these structures into the TT. All the analysis tables of experts’ renderings for the Arabic collocations can be found in **Appendix 29**.

Experts successfully rendered السراء والضراء (“in good and bad times”) into the TT, as most of them provided adequate renderings. P1 and P3 positively managed to provide the appropriate TT equivalent “in good and bad times”. Similarly, P2 and P5 managed to convey the meaning when they respectively produced “in better and in worse” and “women support men at all times”. Therefore, all these renderings were ticked as “Adequate”. In contrast, P4 resorted to omitting this collocation in the TT, which was considered “Inadequate”.

Most of the experts did not reflect the precise ST equivalent during the rendering of شرب الحساء (“have soup”). The analysis shows that 4 subjects rendered this structure literally, “drink soup”, which was considered as “Improvable” because the meaning was relatively conveyed but the way of expressing it was inaccurate. In contrast, the interpretation of P4 was ticked as “Adequate” because he provided the precise ST equivalent. Experts expressed different renderings for the expression حصلت جائزة (“awarded a prize”). P2, P3, and P5 positively provided an accurate SL equivalent, “awarded a prize”, which reflects the meaning of the ST collocation. Besides, the renderings of P1 and P4 preserved the meaning of the ST collocation, as they produced, respectively: “Nobel prize was won” and “have also received the Noble peace prize”. Hence, all these renderings were ticked as “Adequate”.

The analysis of تشريع القوانين (“legislate decisions”) shows that experts faced difficulties with rendering this collocation, as most of them provided incomplete renderings. The majority of experts produced renderings which were relatively near to original meaning but required

some improvements, as in the renderings of P1, P3, and P4, respectively: “participates in important laws”, “participates in important decision making”, and “participate in legislative”. Hence, these renderings were ticked as “Improvable”. In contrast, P2 and P5 successfully rendered this structure into the TT, as they produced, respectively, “participates in legislating important laws” and “take part in legislation”, which were ticked as “Adequate”.

Most of the subjects rendered *يراجع المستشفى* (“visit the hospital”) appropriately, as they conveyed the meaning in the TT. The interpretations of P2 and P4 were accurate renderings, as these subjects produced, respectively, “visit hospitals” and “visiting hospitals”. Besides, the renderings of P1 and P5 reflect the meaning of the ST, respectively, “go to hospital” and “see in the hospital”. Therefore, all these renderings were ticked as “Adequate”. Furthermore, P3 produced an incomplete rendering when he rendered this collocation into “check in to hospitals”, as the verb “check in” does not mean “visit”. Hence, it was considered “Improvable”.

Similarly, experts were able to render *ارتكب اخطاء فادحة* (“committed serious mistakes”) appropriately into the TT. Experts interpreted this collocation differently, but the meaning was preserved in most of these renderings. P1 and P2 provided “made serious mistakes”, which reflects the meaning of the ST collocation. Similarly, P3 and P5 rendered it respectively into “made gross mistakes” and “made grave mistakes” which also express the meaning of the ST. Therefore, all these renderings were ticked as “Adequate”. On the other hand, P4 offered a rendering that requires some improvements, as he produced “committed and done injustice to women” and added unnecessary information. Hence, this rendering was ticked as “Improvable”.

5.1.2.4.1 Analysis of Experts’ Reports Regarding the Interpretation of Collocations

The analysis of experts’ reports regarding the problems of interpreting collocations reflects that comprehension issues, particularly failure in understanding and accessing the SL collocations, were the causes of the problems. These causes represented 75% of the total reports, while the problems that occurred due to translation, particularly problems in

accessing a (number of) TL rendition for SL collocations, registered 25% of the total reports. The analysis table of experts' reports regarding the problems of rendering collocations can be seen in **Appendix 17**. Below are examples of experts' reports regarding the interpretation of collocations.

S.	Report	Back Translation
P1	ترجمة "شرب الحساء" الى شرب وهذا خطأ لأنني لم افهما	I rendered it into "drink soup" which is incorrect because I did not understand it.
P3	ترجمت "تشريع القوانين" حرفيا	I rendered "legislate the laws" literally
P4	لا أذكر أنني سمعت هذا التعبير "السراء والضراء"	I do not think I heard this structure "in good and bad times"

Table 30: Samples of experts' reports regarding the interpretation of Arabic collocations into English.

It is clear from the analysis that the majority of experts succeeded in interpreting Arabic collocations into English, as the number of adequately interpreted collocations was 30 (75% of the total collocations). Furthermore, the analysis indicates that 9 interpretations (22.5% of the total interpretations) were incomplete and required slight improvements as the experts mainly relied on the context to grasp the meaning of the ST collocations. In contrast, only one rendering (2% of the total renderings) was ticked as "Inadequate" when this subject omitted the collocation in the TT. Moreover, experts reported in the post-interpreting reflections that they relied on the context to convey the meaning of ST collocations in the TT.

S.	Adequate	Improvable	Inadequate
P1	6	2	
P2	7	1	
P3	5	3	
P4	5	2	1
P5	7	1	
Total	30	9	1
Ratio	75%	23%	2%

Table 31: Analysis of experts' interpretations for Arabic collocations into English.

According to the analysis, experts were able to render the majority of the *Rich Points* that refer to collocations. However, they applied strategies to overcome the difficulties with rendering several examples of collocations, which led them to provide incomplete renderings. Hence, the percentage of improvable renderings was 23% of the total number of collocations.

Experts show the ability to cope with the potential difficulties of interpreting syntactic elements: passive voice and collocations. Their common use of English passive voice facilitates the rendering of passive voice. Furthermore, experts focused on expressing the meaning of the collocations in addition to applying the necessary strategies to overcome the interpreting problems.

5.1.2.5 Analysis of Rendering Culture Specific Terms and Structures

The Arabic speech includes several terms and structures which were specifically related to Arabic culture, such as الخالة (“aunt”), ما يتلج الصدر (“cooking meals”), الا من يديها (“unless she cooks it”), وقد استوقفني المثل (“I remembered a proverb”), نرفع لها القبعة (“hats off”). As with other categories, experts were able to positively render the majority of Rich Points that refer to cultural terms and structures. All analysis tables of experts’ renderings for culture specific terms and structures can be seen in **Appendix 30**. The subjects managed to convey the meaning of the ST cultural structure طبخ الاكلات التي نحبها (“cooking our favourite food”) into TT appropriately. The analysis shows P1 and P3 successfully interpreted this structure, as they conveyed the ST equivalent accurately, “cooking the food”. On the contrary, the interpretations of P2, P4, and P5, “making food” and “making meals”, were not precise equivalents but they reflected the meaning of the ST. Hence, these renderings were ticked as “Adequate”.

In the same line, the analysis of ما يتلج الصدر (“it’s heart-warming”) shows that most of the experts adequately expressed the meaning of the ST structure. P1 applied a general TT structure when he produced “we feel better”, which was incomplete but relatively close to the ST meaning. Therefore, it was ticked as “Improvable”. On the other hand, other

renderings conveyed the meaning of the ST structure, as P2 produced “we are warmed to”, which has the same ST meaning. Similarly, P3 used an approximate equivalent, “it is heartily to see”. Moreover, P4 and P5 provided general TT structure, respectively, “happy to see” and “we are pleased that”. Hence, all these renderings were ticked as “Adequate”.

Experts produced various interpretations for نرفع لها القبعة (“our hats off”) as rendering this structure literally is considered an incomplete rendering because it may not reflect the intended meaning of this cultural structure. Hence, the literal interpretations of P1, P2, and P3 (“raise our hats”) were considered as “Improvable”. On the contrary, the interpretations of P4 and P5, respectively, “we cannot but admire of women for” and “salute women”, expressed the implicit meaning of the ST cultural structure. Therefore, they were ticked as “Adequate”.

5.1.2.5.1 Analysis of Experts’ Reports Regarding the Interpretation of Cultural Terms and Structures

According to experts’ reports regarding the problems of rendering culture specific terms and structures, it is noted that the experts encountered problems due to comprehension issues, particularly understanding the intended meaning of the culture specific terms and structures, in addition to one report related to failures in syntactic and structural differences between the SL and TL. Furthermore, the analysis shows that two subjects reportedly considered the problems in selecting a contextually appropriate equivalent among a number of retrieved variants is behind the problems of providing accurate ST cultural equivalents. Problems which occurred due to comprehension issues represent 70% of the total reports, 20% of the reports were related to translation issues, and 10% were problems that were caused by monitoring, particularly with the accuracy of translation at the conceptual level against a ST representation. Analysis table of experts’ reports regarding the problems with rendering Arabic culture specific terms and structures into English can be found in **Appendix 17**.

Below are examples of experts’ reports regarding the interpretation of culture specific terms and structures.

S.	Report	Back Translation
P1	لم اجد البديل المناسب لترجمة "يثلج الصدر"	I could not find the appropriate equivalent for "heart-warming".
P3	ترجمت "نرفع لها القباعة" اعتمادا على السياق	I relied on the context to render "hats off"
P4	أذكر أنني نقلت المعنى عندما ترجمت "استوقفني المثل"	I remember I expressed the meaning of "I remembered a proverb".
P5	استخدمت unless مع "من يديها" وكان علي الانتظار قليلا لتجنب هذه الهفوة	Used "unless", I should have lagged a bit to avoid this pitfall

Table 32: Samples of experts' reports regarding the interpretation of culture specific terms and structures.

Analysis table of experts' renderings for the Arabic culture specific terms and structures can be found in Appendix P. This table shows experts' ability to interpret cultural expressions, as the total number of "Adequate" interpretations was 25 (83% of the total reports). Furthermore, 5 renderings (17% of the total reports) were also correct but were incomplete. In contrast, the analysis shows that there were no "Inadequate" renderings with the interpretations of cultural terms and structures.

S.	Adequate	Improvable	Inadequate
P1	4	2	
P2	5	1	
P3	5	1	
P4	6		
P5	5	1	
Total	25	5	
Ratio	83%	17%	

Table 33: Analysis of experts' interpretations for Arabic culture specific terms and structures into English.

According to the analysis, experts managed to interpret cultural terms and structures into English adequately. Moreover, they applied the strategies of generalisation, approximation, and inferencing when they faced difficulties with interpreting these elements. They relied

on their experience to provide the meaning of the ST cultural expressions and conveyed it in the TT.

5.1.2.6 Analysis of Rendering Terms and Structures with Religious Content

The Arabic speech includes several items and structures with religious content such as منذ حديث المصطفى " صلى الله عليه وسلم " الجنة تحت أقدام الأمهات ("AlFajir prayer"), صلاة الفجر ("Prophet's hadith (PBUH) paradise is under the women's feet"), رحمها الله ("may she rest in peace"). The analysis shows that the experts positively managed to render most of these elements appropriately. All the analysis tables of experts' renderings for the terms and structures with religious content can be found in **Appendix 31**.

The opening Arabic formula السلام عليكم ورحمة الله وبركاته ("Peace be upon you and Allah's mercy and blessings upon you") was successfully rendered into Arabic. These interpretations were understandable, particularly when the audience are non-Arab Muslims, as this formula is widely used among Arab and non-Arab Muslims. However, if the audience are non-Muslims, providing an English cultural equivalent such as "Hello" is more appropriate. Another structure with religious content is صلاة الفجر ("AlFajir prayer"). The use of the structure in the speech referred to the early hours in the morning that mothers wake up to start their daily duties in the house. Similarly, experts succeeded to render صلاة الفجر ("dawn prayer") into the TT. P1, P4, and P5 added "in the morning" to make it clearer that the use of this religious structure was intended to refer to early hours in the morning. Therefore, these renderings were ticked as "Adequate". Moreover, P2 skipped the religious word "prayer" and interpreted only الفجر ("dawn"), which also conveyed the implicit meaning of the ST. Consequently, this rendering was regarded as "Adequate". On the other hand, P3 kept "AlFajir prayer", though it may not be understood by an English audience. Therefore, his rendering was treated as "Improvable".

The prophetic tradition which is also considered a structure with religious content, was rendered differently by experts. P1 did not interpret the whole hadith, but he skipped part of it ("heaven is beneath (ahahahah) mums"). Thus, this subject hesitated during the interpretation of this hadith. Moreover, the interpretations of P4 and P5 were characterised

by pauses and hesitations, but reflected the intended meaning of the hadith. These renderings were ticked “Improvable”, as they were not accurately interpreted and needed several improvements. On the other hand, the interpretations of P2 and P3 appropriately reflected the SL equivalent and conveyed the intended meaning of the religious structure. Therefore, these renderings were considered as “Adequate”. Furthermore, experts reportedly relied on the context during the interpretation of these religious structures.

Moreover, the analysis of the Quranic verse shows that experts faced difficulties with interpreting it. Experts rendered this verse differently, as P1 focused on the meaning when he tried to infer it: “we told man to take care of his parents and his mom carried him”. However, he could not convey the whole meaning of the verse. Therefore, his rendering was considered “Improvable”. P3 resorted to reproducing the Arabic verse in English, which was definitely inappropriate because it was not a loan expression, but it is a structure of religious content that if reproduced into the TT would not make sense for the TT audience. Hence, this rendering was ticked as “Inadequate”.

Furthermore, P4 started his rendering with an incorrect sentence, “a verse by the prophet”, but it is a Quranic verse which was said by the Almighty. Moreover, this subject tried to infer the meaning during his rendering. Therefore, this rendering was ticked as “Improvable” because it required slight changes to be an adequate rendering. In contrast, P2 and P5 successfully interpreted this religious structure when they inferred the meaning and conveyed it into the TT. Thus, P5 added, before her interpretation “I interpret the meaning of ...”, as this subject reportedly tried to deliver a message to the audience that she was conveying the gist of the Quranic verse rather than rendering it literally. Therefore, the renderings of P2 and P5 have been ticked as “Adequate”.

Moreover, experts reportedly tried to rely on the context to derive the meaning of the Quranic verse, in addition to their confirmation of having difficulties with understanding the meaning of this verse and how to correctly convey its meaning into the TT. As for the analysis of علينا البر بها (“we have to be kind to her”), it shows that experts rendered it differently. The word البر (“albir”) was related to “filial piety”, which is normally mentioned in the Quran. In other words, P1, P3, and P5 successfully inferred the intended meaning of

the religious structure and conveyed it properly into the TT when they produced, respectively, “we need to be good to woman”, “we have to pay her dues”, and “we need to pay attribute to women”. Therefore, these renderings were ticked as “Adequate”. In the same line, these subjects reportedly indicated that they relied on the context to grasp the meaning of the ST religious structure. In contrast, P2 and P4 resorted to omitting this structure from their renderings, as they reported that they faced difficulties with rendering this structure, which led them to omission. Hence, they were ticked as “Inadequate” renderings.

The majority of experts positively managed to render *رحمها الله* (“may she rest in peace”) into English. The analysis explains that 4 subjects appropriately conveyed the meaning, as P2, P3, and P5 successfully rendered this structure when they produced, respectively, “God rest her soul”, “may she rest in peace”, and “God bless her soul”. Similarly, P4 provided an equivalent structure which is commonly used in the TT when he produced “the late”. Hence, all these rendering were ticked as “Adequate”. Furthermore, the interpretation of P1 was considered “Inadequate” because he resorted to omitting this structure in the TT.

5.1.2.6.2 Analysis of Experts’ Reports Regarding the Interpretation of Terms and Structures with Religious Content

According to experts’ reports, the main reasons behind the problems of rendering the religious terms and structures were comprehension aspects, particularly difficulties with selecting the appropriate lexical equivalents, which counted for 45% of the total reports. Moreover, two subjects reportedly related the problems to difficulties with understanding the meaning of the religious terms and structures. In the same line, 5 reports (25% of the total reports) related the problems to the translation aspects, particularly problems in accessing a (number of) TL rendition for an SL segment. Furthermore, 2 experts (10% of the total reports) reportedly confirmed having problems, but they did not mention the causes of these problems. Therefore, they were listed under unanalysed problems.

Analysis table of experts' reports regarding the problems with rendering Arabic terms and structures with religious content into English can be seen in **Appendix 17**. Below are examples of experts' reports regarding the interpretation of religious terms and structures.

S.	Report	Back Translation
P1	لم اتذكر المقابل المناسب ل"رحمها الله"	I could not find the appropriate equivalent for "rest in peace".
P2	من الصعب ايجاد البديل الثقافي المناسب ل"علينا البر بها"	Difficult to find an exact cultural match for "we have to take care of her".
P3	ترجمت " حديث المصطفى "صلى الله عليه وسلم" ترجمة حرفية	I rendered the prophet's "peace be upon him" hadith literary ...
P4	نصرفت وعبرت عن الفكرة لصعوبة النص القرآني	I expressed the main idea of the Quranic verse due to the difficulties of rendering it.
P5	اعتقدت انه غير ضروري ترجمة "علينا البر بها" لأن الآية القرآنية اخذت وقت كثيرا	I thought it was redundant to render "we have to take care of her" and only said "pay tribute" because the verse took longer to render

Table 34: Samples of experts' reports regarding the interpretation of terms and structures with religious content.

The analysis shows that experts were able to interpret these elements appropriately, as the total number of adequately interpreted segments was 25 (71.5% of the total renderings). Besides, 6 interpretations (17% of the total interpretations) were treated as "Improvable" because they were incomplete renderings and required slight changes. In contrast, 4 renderings (11.5% of the total renderings) were identified as inadequately interpreted structures. Furthermore, most of these inappropriate renderings resulted from omission.

S.	Adequate	Improvable	Inadequate
P1	4	2	1
P2	6		1
P3	5	1	1
P4	4	2	1
P5	6	1	
Total	25	6	4

Ratio	71.5%	17%	11.5%
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Table 35: Analysis of experts' renderings for the Arabic terms and structures with religious content into English.

According to the analysis, experts did not encounter problems with interpreting terms and structures with religious content. They clearly managed to apply strategies when they faced difficulties with rendering these elements, such as inferencing, which enabled them to grasp the meaning of these structures and express it in the TT, and skipping when they skipped the unnecessary information. However, the subjects also applied reproduction when they reproduced the ST structure in the TT when they could not recall the SL equivalents. Moreover, experts reportedly did not follow the interpretation of these structures literally as they were aware that a word-for-word rendering of the religious content structures may lead to inappropriate renderings.

The subjects expertly managed to render Arabic cultural elements, culture specific terms and structures, and terms and structures with religious content, as the majority of the renderings were adequately interpreted into English. Furthermore, experts relied on their experience to comprehend and infer the meaning of the cultural elements, which facilitates the process of interpreting and reduces the cognitive pressure on the interpreters.

Category	S.	Adequate	Improvable	Inadequate
Proper names	P1	8	2	1
	P2	11		
	P3	11		
	P4	10	1	
	P5	10	1	
Total		50	4	1
Numbers	P1	8		1
	P2	9		
	P3	7	1	1
	P4	8		1
	P5	8		1

Total		40	1	4
Passive voice	P1	4	3	1
	P2	8		
	P3	8		
	P4	8		
	P5	8		
Total		36	3	1
Collocations	P1	6	2	
	P2	7	1	
	P3	5	3	
	P4	5	2	1
	P5	7	1	
Total		30	9	1
Cultural terms and structures	P1	4	2	
	P2	5	1	
	P3	5	1	
	P4	6		
	P5	5	1	
Total		25	5	
Terms and structures with religious content	P1	4	2	1
	P2	6		1
	P3	5	1	1
	P4	4	2	1
	P5	6	1	
Total		25	6	4
Total categories		206	28	11
Ratio		84%	11.5%	4.4%

Table 36: Analysis of experts' interpretations for the six categories during the SI task from Arabic into English.

It is clear from table 35, experts managed to interpret the lexical, syntactic, and cultural elements during the SI task from Arabic into English, as the total number of adequately interpreted segments was 206 (84% of the Rich Points). The analysis shows that 28 renderings (11.5% of the total renderings) were ticked as "Improvable" as they required slight changes to be accurate renderings. In contrast, few inappropriate renderings were

detected, as subjects mainly resorted to omitting some of the Rich Points. Therefore, 4.5% of the total renderings were related to inadequate interpretations that have a negative impact on the TT.

5.1.2.7 Nature of Inadequate Renderings During the SI Task From Arabic into English

The inadequate renderings of each category will be analysed and all the examples of these inadequate renderings can be found in **Appendix 32**.

5.1.2.7.1 Nature of Inadequate Renderings of Proper Names

The analysis of the inadequate renderings of proper names indicates that the experts only committed one mistake when P1 misinterpreted the name الياس يوسف "Ilyas Yousif", as he produced "Yazi". Moreover, this subject reported in the post-interpreting questionnaire that this mistake is related to problems with hearing this name.

5.1.2.7.2 Nature of Inadequate Renderings of Numbers

Experts successfully transferred the majority of ST number segments into English. However, several number segments were inappropriately rendered. In other words, P1, P3, and P5 inappropriately rendered the number segment "877" into "1877". These subjects confirmed committing mistakes with transferring this number as they stated, respectively, "I think I could not render this number adequately", "I could not recall it", and "I do not know how I rendered it". On the other hand, P4 rendered "1849" into "1947" and stated "I heard 1949". Most of the inadequate renderings were due to comprehension issues that led the subjects to make these mistakes with transferring the numbers into the TT.

5.1.2.7.3 Nature of Inadequate Renderings of Passive Voice

As for the rendering of passive voice, experts were able to render the majority of these aspects adequately. However, one example was identified as inadequate, as P1 changed the meaning of the passive structure when he negated the sentence while the original structure

was affirmative. This reflected a different ST meaning. Moreover, this subject did not report facing difficulties or committing mistakes with rendering this structure.

5.1.2.7.4 Nature of Inadequate Renderings of Collocations

Only one rendering was ticked as “Inadequate” during experts’ renderings of collocations, as most of these elements were interpreted appropriately except for the example. This subject reported that he did not hear well. Therefore, he resorted to omitting it.

5.1.2.7.5 Nature of Inadequate Renderings of Cultural Terms and Structures

No problems were identified during the rendering of cultural terms and structures, as experts applied strategies to overcome the problems and resorted to relying on their experience to grasp the meaning of these elements and apply it in the TT.

5.1.2.7.6 Nature of Inadequate Renderings of Terms and Structures with Religious Content

As with other categories, experts rendered the majority of the terms and structures with religious content adequately. However, several examples were ticked as “Inadequate” renderings. Obviously, P1 resorted to reproducing the Quranic verse into the TT, which may not be comprehended by the TT audience. This subject reported that he did not know the meaning of this verse, and therefore reproduced it into the TT. On the other hand, P2 and P4 resorted to omission. These subjects respectively reported “I relied on the meaning during my rendering, but I am not sure about this structure” and “it was difficult to find an exact cultural match”. Furthermore, P1 omitted the religious structure from the TT. He reportedly stated: “I could not recall its equivalent”.

According to the analysis, most of the mistakes committed by experts were due to omitting the *Rich Points*. In other words, transferring number segments inappropriately and omitting the terms and structures with religious content were the main problematic elements during the SI task from Arabic into English. Moreover, most subjects were aware of the problems but they were not sure about the solutions they produced.

5.1.2.8 Strategies Applied by Experts During Both SI Tasks

As in the English into Arabic task, the analysis of measuring experts' renderings during the Arabic into English task reflects that the experts interpreted the majority of these elements adequately. Moreover, they expertly managed to overcome the potential problems or even prevent them from occurring through the use of the necessary strategies that helped to keep the communication between the speaker and the audience. All examples of Experts' use of strategies during Arabic into English task can be found in **Appendix 33**. In the following sections, experts' strategies that were applied with rendering the *Rich Points* in each category will be identified and analysed starting with those strategies applied during rendering the proper names.

5.1.2.8.1 Strategies Applied During the Rendering of Proper Names

The analysis of experts' renderings for the proper names reflects that the experts successfully interpreted the majority of these proper names. As in the English into Arabic task, experts applied strategies to overcome or even avoid the difficulties of rendering the proper names. The subjects reportedly developed tactics during the rendering of the proper names in which they immediately started rendering the names once they were uttered by the speaker. Moreover, two subjects successfully applied the strategy of generalisation when they faced difficulties with recalling the proper names. Obviously, P1 and P5 applied the strategy of generalisation when they faced difficulties with interpreting examples 1 and 2, respectively. Furthermore, P1 used a general equivalent, "another Arab woman", when he could not provide the precise proper name "Zaha Hadid". Similarly, P5 produced "a Greek philosopher" when she could not recall the ST name "Socrates", which is a Greek name. These subjects reported the following feedback in the post-interpreting reflections:

P1: "I could not recall 'Zaha Hadid'. Therefore, I provided a general proper name which I think I managed it."

P5: "I couldn't remember this name in English so I said 'a Greek philosopher'."

5.1.2.8.2 Strategies Applied During the Rendering of Numbers

The analysis of rendering number segments reflects that most of these segments were adequately interpreted into English. This success of rendering these segments is related to experts' ability to use their experience with rendering these elements, as they reportedly acknowledged that these segments may be lost easily from memory. Therefore, experts focused on these segments during the interpreting task and started with these segments once they were uttered by the speaker. In contrast, the analysis shows that very few occurrences of numbers were inadequately rendered into English.

5.1.2.8.3 Strategies Applied During the Rendering of Passive Voice

As with other categories, experts were able to adequately interpret the passive structures. Furthermore, they reportedly indicated that they were aware of the common use of passive voice in English as compared to Arabic. Therefore, they did not face major difficulties with rendering these elements. However, the analysis shows that P1 applied the strategy of summarising when he rendered the passive voice. This subject expressed only the gist of the passive structure "in the seventies, these women rights calls increased". Moreover, this subject reportedly stated "I relied on the context to get the meaning of the passive voice rather than word for word rendering".

5.1.2.8.4 Strategic Analysis of Rendering Collocations

The analysis shows that experts faced difficulties with several examples. Hence, they applied strategies to overcome these difficulties and continue the interpreting process properly. Experts applied the strategies of approximation and inferencing to overcome the difficulties in finding the precise equivalent of اسلط الضوء ("shed light on"). the analysis of اسلط الضوء ("shed light on") shows that P3 and P5 applied the strategy of approximation when they produced "highlight", which was close to the ST meaning but not a precise equivalent. Besides, P4 used the strategy of inference when he expressed the meaning of the ST collocation "would like to focus on".

The analysis of *تبذل جهودا* (“exert efforts”) indicates that several experts resorted to applying the strategy of inferencing to overcome the difficulties. P1, P2, and P5 tried to express the meaning of the ST collocation when they produced “work hard” and “work a lot”. Furthermore, those subjects reported in the post-interpreting questionnaire that they relied on the context to acquire the meaning of this collocated structure.

The strategy of approximation was notably applied by two experts to overcome the difficulties of rendering *تشريع القوانين* (“legislate the laws”). P1 and P4 applied the strategy of approximation when they produced, respectively, “participate in new laws” and “participate in the work of legislature”, which were close to the ST meaning. Other strategies were applied by experts to avoid the errors in rendering *اخطاء فادحة* (“serious mistakes”) into the TT. P3 and P5 used the strategy of approximation when they respectively produced “gross mistakes” and “grave mistakes”. On the contrary, P4 applied the strategy of addition to clarify his rendering, as he used two verbs “committed and done injustice”. Thus, this subject confirmed having difficulties with rendering this structure, as he stated “when I faced difficulties with interpreting this collocation, I decided to use ‘commit and do them injustice’ to make the meaning clear.”

Three subjects applied the strategies of approximation and summarising during the rendering of *مراجعة المستشفى* (“visit the hospital”). The analysis reflects that P1 and P3 applied the strategy of approximation when they rendered this structure respectively into “go to hospital” and “check in”, which were close to the ST meaning. Similarly, P5 summarised the collocation and reflected the meaning in the TT. Furthermore, these subjects reported in the post-interpreting questionnaire that they rendered this structure according to the context. Similarly, the strategy of approximation was mainly applied by three subjects during the interpretation of *تشريع القوانين* (“legislate the laws”). The analysis shows that P1, P4, and P5 used the strategy of approximation when they produced, respectively, “she participates in important laws”, “participate in legislative elections”, and “take part in legislation”, which were close to the ST meaning.

The majority of experts resorted to using the strategy of literal translation when they rendered *شرب الحساء* (“have soup”) into “drink soup”. The analysis shows that these subjects were not aware of this rendering as they did not report facing difficulties with interpreting it. However, the meaning of the TT equivalent was close to that of the ST. During the

rendering of السراء والضراء (“in good and bad times”), P5 applied the strategy of generalisation when she could not provide the precise equivalent for the ST collocation. This subject provided a general structure to render this collocation, as she produced “women support men at all times”, which was relatively close to the ST meaning.

The analysis of ان المجتمع ارتكب أخطاء فادحة (“The society committed serious mistakes”) shows that one of the subjects, particularly P4, applied two strategies with rendering this collocation. This subject used the strategies of addition and approximation when he first produced “has committed and done”, as he added “done”. Secondly, he provided an approximate equivalent, “injustice to women”, which was relatively close to the ST meaning. Moreover, this subject confirmed having difficulties with interpreting this collocation. Therefore, he used these alternatives.

5.1.2.8.5. Strategies Applied During the Rendering of Culture Specific Terms and Structures

Experts successfully interpreted the majority of culture specific terms and structures into English. However, they reportedly confirmed facing difficulties with interpreting these aspects. Therefore, they resorted to applying strategies to overcome these difficulties. The subjects used the strategies of generalisation and approximation to render ما يتلج الصدر (“We are warmed”). The analysis indicates that P1, P4 and P5 applied the strategy of generalisation when they respectively produced general equivalents: “we feel better”, “we are happy”, and “we are pleased”. Meanwhile, P3 used the strategy of approximation when he interpreted it into “it is heartily to see”, which is close to the original meaning but not a precise equivalent. Moreover, P3 reported that “I selected TL equivalents based on the context”, while P5 indicated that she had more than one equivalent and if there was another attempt she could have used “heart-warming”.

The majority of experts applied the strategy of inferencing when they rendered الا من يديها (“unless she made it”), as they relied on their understanding of the context. No experts followed the rendering of this cultural structure literally, but they inferred the meaning and expressed it into the TT. The subjects used the verb “made” to refer to “cooking”. Furthermore, the subjects reportedly understand that the meaning of this cultural structure can be derived from the context. As for the renderings of نرفع لها القبعة (“hats off”), two

subjects applied the strategy of inferencing when they obtained the meaning of this structure from the context. P4 and P5 expressed the meaning of this collocation when they provided, respectively, “we cannot but admire of women” and “we should all salute women”. They reportedly derived the meaning from the context and expressed it in the TT. All experts applied the strategy of inferencing when they provided the meaning of the ST structure وقد استوقفني المثل (“I remember a proverb which says”).

The subjects relied on the context to comprehend the cultural structure and conveyed it in the TT rather than rendering it literally, which could affect the meaning of the ST. P1 and P4 used the verb “remember” to reflect the meaning when they respectively provided “I remember the saying that says” and “I remember the proverb”. Moreover, P2 used “recall” to express the ST meaning: “I also recall the proverb”. P5 used “there is a saying” to express the meaning of the ST, while P3 used the past continuous tense to reflect the meaning: “I was contemplating to saying”.

5.1.2.8.6 Strategic Analysis of Rendering Terms and Structures With Religious Content

According to the analysis, experts faced difficulties with interpreting terms and structures with religious content, which led them to apply strategies to overcome the problems during the SI task. The analysis of صلاة الفجر (“Al-Fajir prayer”) reflects that experts applied strategies to render this structure appropriately. P1 added “in the morning” to imply that the “Al-Fajir-prayer” occurs early in the morning. However, he reproduced the religious structure “Al-Fajir” without rendering it. P2, P4, and P5 resorted to the strategy of inferencing, as they grasped the meaning of this structure and expressed it in the TT, respectively: “waking up at dawn”, “to wake up since the early hours in the morning”, and “wake up early in the morning”. However, applying literal rendering with religious structures may lead to misunderstanding by the TL audience as the message was originally intended for SL audience. Furthermore, the subjects confirmed having difficulties with interpreting this religious structure in their post-interpreting reports when they stated that they aimed at conveying the meaning.

The strategies of skipping and inferencing were applied by experts to render the prophetic Hadith. P1 hesitated during the interpretation then he skipped part of the prophets’ saying

“under mothers’ feet”. Similarly, P2 and P5 skipped “peace be upon him”. On the other hand, after several pauses, P4 inferred the prophets’ saying and briefly produced the gist. Moreover, this subject reported “I was able to express the meaning”. The strategy of inferencing was clearly identified during the interpretation of the Quranic verse. According to the subjects’ reports, the Quranic verse was considered the main problematic element during rendering the religious terms and structures due to the difficulties of comprehending the implicit meaning and to express it in the TT. Therefore, experts mainly applied the strategy of inferencing when they focused on expressing the meaning of this structure rather than interpreting it literally.

The analysis shows that P1 hesitated and paused before he inferred part of the meaning: “and we ... told man to take care of his parents and his mom carried him”. This subject confirmed having problems with rendering this verse and related that to comprehension issues. Similarly, P2 tried to produce the meaning of the Quranic verse when she inferred it and expressed the gist in the TT. She reported that she was able to successfully interpret it. In contrast, P3 applied the strategy of reproduction when he produced the Arabic Quranic verse in the TT. This subject reportedly did not like to change the meaning of the Quranic verse if he misinterpreted it. Furthermore, P4 hesitated and paused then tried to infer the meaning of the verse “people have to take care of their parents specially their women who have ... sacrifice themselves”. He also misinterpreted “the almighty” and interpreted it into “prophet”. Thus, before interpreting the verse, P5 said “I interpret the meaning” in order to make it clear that she was inferring the meaning from the words in the verse. Moreover, this subject stated “I think I did relatively well, also it was a familiar verse specially for Muslims”.

Similarly, the strategy of inferencing was used by several subjects to render علينا البر بها (“we have to take care of her”). P1, P3, and P5 applied the strategy of inferencing to convey the meaning of this structure rather than interpreting it literally, as they produced, respectively: “need to be good to woman”, “have to pay her dues a greeting to women”, and “need to pay attribute to women”. Furthermore, these subjects reportedly indicated that they relied on the context to comprehend the meaning and express it in the TT.

According to the analysis, experts used positive strategies that helped them to overcome the difficulties and even avoided them during the SI task from Arabic into English. The strategy of inferencing was mostly applied as experts relied on their experience and their wide knowledge to grasp the meaning from the context and apply it in the TT. They basically relied on this strategy with rendering cultural elements as they realise that these elements cannot be rendered literally because a word-for-word rendering will negatively impact the ST meaning. Similarly, they applied the strategies of approximation and generalisation when they faced difficulties with rendering some of the lexical and syntactic elements.

The experts applied various strategies during the interpretation of lexical, syntactic, and cultural elements in the SI task from Arabic into English. They mainly used the strategy of inferencing, as they relied on the context to obtain the meaning of the Rich Points and convey it into the TT. Hence, this strategy is considered the main strategy that was applied by the experts during the rendering of cultural elements (culture specific terms, terms and structures with religious content), as they focused on conveying the meaning of these elements rather than providing a literal translation. The strategies of approximation and generalisation were clearly identified with the rendering of syntactic elements, particularly collocations, as the experts provided TT equivalents which are close in meaning to the ST collocations. Moreover, the subjects reportedly confirmed using these strategies to overcome the difficulties of rendering the Rich Points.

5.1.2.8.7 Summary of Analysing the Strategies of Experts' Renderings for the Lexical, Syntactic, and Cultural Elements in the SI Task from Arabic into English

1. Experts did not face difficulties with rendering lexical elements (proper names, numbers), as they adequately rendered these elements. However, the subjects applied the strategy of generalisation in two cases during the rendering of proper names (i.e. rendering the proper name “Zaha Hadid” into “Arab woman”). The subjects, as in the English into Arabic task, are aware of the difficulties of rendering these elements. Therefore, they developed strategies like starting the rendering of these elements once they were uttered by the speaker and paying more attention to these elements during the SI task.

2. Various strategies were applied by experts during the rendering of syntactic elements, particularly collocations. Strategies such as approximation, inferencing, generalisation, addition, and literal translation were applied to overcome the difficulties of interpreting collocations. However, literal translation was used in few cases, which was one of the deductive strategies that negatively affects communication (Al-Salman and Al-Khanji, 2002). Most of these strategies were considered positive choices for interpreters as they helped the subjects to overcome the difficulties and avoid committing the interpreting mistakes.
3. The strategy of inference was the main strategy that was identified during the interpretation of cultural elements (culture specific terms and structures and terms and structures with religious content). In other words, the subjects relied on the context to acquire the meaning of these elements and transferred it into the TT, which required ample knowledge, vast experience, and training, which were clearly identified with the experts' performance. Other strategies were applied with rendering these elements, such as generalisation, skipping, approximation, and reproduction. However, the use of the reproduction strategy was not a positive choice, as reproducing the same SL terms in the TT has a negative effect on interpreting, particularly with structures that cannot be considered loan words. However, experts reportedly used this strategy to avoid changing the meaning of the Quranic verse in the TT. Moreover, rendering cultural elements was considered the main strategic aspect in the SI task, as experts applied the widest range of strategies as compared with other aspects.
4. As in English into Arabic task, experts reportedly indicated their awareness of the difficulties they faced during the SI task, as they are aware of their ability to overcome these difficulties that appear during the interpreting process through the use of necessary strategies and their experience.

5.1.2.9 Results of Analysing Experts' Reports Regarding the Problems Encountered During the SI Task from Arabic into English

As in the Arabic into English task, experts successfully managed to render the majority of the Rich Points. However, they reportedly encountered problems during the SI task from Arabic into English, which were due to different cognitive processes.

1. The experts mainly related most of the problems they encountered to comprehension issues, particularly recalling the names and the numbers, understanding the accurate meaning of the collocations and cultural terms and structures, and failure to access the meaning of SL terms and structures with religious content. Furthermore, monitoring the renderings, particularly those unanalysed problems, were also considered among the main sources of the problems by the experts.
2. Experts consider the interpretation of cultural elements, particularly rendering the Arabic terms and structures, as the most problematic element, as they reported more problems than with other elements. Moreover, they believed that rendering collocations was also problematic for them, as they reportedly encountered problems with understanding and selecting the accurate SL equivalent collocations.
3. The analysis of experts' reports shows that only a few problems were encountered by the experts during the rendering of proper names and numbers, as only two subjects reported problems with each category, which were mainly related to comprehension issues.
4. Experts reported having problems with passive voice, but they did not report the causes of these problems. Hence, 6 reports were detected as unanalysed problems. This may be due to their reliance on the context to grasp the meaning rather than paying more attention to the syntactic structures.
5. The analysis shows that experts reportedly did not relate many problems to the simultaneity of the task (i.e. problems created by high SL input relative to subject's individual output rate), translations issues (i.e. problems in accessing a (number of) TL rendition for a SL segment), and monitoring (non-analysed

problems). In contrast, comprehension problems (hearing and understanding the SL segment) were the main source of the problems according to experts' reports.

5.1.2.10 Results of Analysing Experts' Interpretations During the SI Task from Arabic into English

The analysis of measuring experts' renderings and the strategies they applied to overcome the difficulties with interpreting lexical, syntactic, and cultural elements during the SI task from Arabic into English comes up with the following points:

1. Experts were able to successfully interpret the majority of lexical elements (proper names, numbers), syntactic elements (passive voice, collocations), and cultural elements (culture specific terms, structures with religious content) into Arabic, as the total ratio of "Adequate" interpretations for all these elements was 84%. Besides, incomplete renderings that required slight changes represented 11.5%. On the other hand, "Inadequate" interpretations registered 4.5% of the total number of the Rich Points that were designed for this study.
2. Experts were able to apply strategies that helped them to overcome the difficulties or even prevent them when rendering lexical (proper names, numbers), syntactic (passive voice, collocations), and cultural (culture specific terms, structures with religious content) elements. In other words, with the lexical elements, experts applied their experience by paying more attention to these elements during the interpreting task and started rendering them once they were uttered by the speaker, in addition to using the strategies of generalisation and approximation. These strategies have great effects on overcoming the difficulties that appear during the interpretation of these elements. Moreover, various strategies were applied during the rendering of collocations, such as generalisation, inferencing, and approximation. In contrast, inferencing was the main strategy that was used by the subjects while rendering the cultural elements, as they basically relied on the context to obtain the meaning of the Rich Points and transfer it into the TT.

3. As in the previous task, expert interpreters reported, in the post-interpreting reflections, that they felt uncomfortable and stressed when they faced difficulties during the interpreting task. However, they were confident that they would overcome these difficulties or even avoid them. This confidence has been proven by applying the variety of successful interpreting strategies that helped them to keep processing the communication appropriately. Evidence of that is the high number of “Adequate” renderings that experts reflected during the analysis of their interpreting recordings.
4. Experts were aware of the difficulties they faced and the mistakes they made during the interpreting task, as the analysis of their interpreting recordings matched with their post-interpreting reflections. Moreover, experts reported even the few problems they encountered during the SI task and exactly how they handled these difficulties.
5. In terms of directionality, experts reportedly did not agree on which direction they felt more comfortable with during SI, as three subjects preferred the direction of interpreting from English (their B language) into Arabic (their A language), while one subject preferred interpreting from his A language into B language. On the other hand, another subject related that to the type of ST. However, the results of the measuring analysis show that the numbers and ratios of the three categories of the interval scale in both SI tasks were relatively close. Hence, it is difficult to determine in which direction experts feel more comfortable to interpret.

5.1.2.11 Comparison of Experts' Renderings Between the Two SI Tasks Regarding the Problems Encountered and the Strategies Applied

1. During the rendering of lexical elements (proper names, numbers), experts made fewer mistakes in the English into Arabic task than in the Arabic into English one. In other words, there were no inadequate rendering with interpreting English proper names into Arabic. Besides, 3 examples of English number segments were inadequately interpreted into Arabic. In contrast, one rendering was identified as

inadequate during the rendering of Arabic proper names into English, in addition to 4 examples of number segments which were inadequately rendered into English.

Category	English into Arabic	Arabic into English
Number of inadequate renderings of proper names	.....	1
Number of inadequate renderings of number segments	3	4

Table 37: Number of inadequate renderings of the experts for the names and numbers during both SI tasks.

2. Experts made more mistakes with rendering syntactic elements (passive voice, collocations) from English into Arabic task than in the opposite direction. In other words, 2 examples of English passive voice were inadequately rendered into Arabic, in addition to 3 interpretations of English collocations which were inappropriately rendered into Arabic. Furthermore, only one example of Arabic passive voice and another one for collocations were rendered inadequately into English.

Category	English into Arabic	Arabic into English
Number of inadequate renderings of passive voice	2	1
Number of inadequate rendering of collocations	1	1

Table 38: Number of inadequate renderings of the experts for the passive voice and collocations during both SI tasks.

3. Regarding the interpretation of cultural elements (cultural terms and structures, terms and structures with religious content), experts committed more mistakes with rendering these elements during the English into Arabic task than in the other direction. In other words, the analysis shows that experts inadequately rendered 5 examples of cultural terms and structures into Arabic. Moreover, 4 renderings of English terms and structures with religious content were ticked as “Inappropriate”. In contrast, no problems were identified with the interpretation of Arabic terms and

structures, while 4 examples of Arabic terms and structures with religious content were inadequately interpreted.

Category	English into Arabic	Arabic into English
Number of inadequate renderings of cultural terms and structures	5	.....
Number of inadequate renderings if terms and structures with religious content	4	4

Table 39: Number of experts' inadequate renderings for culture specific terms and structures and terms and structures with religious content during both SI tasks.

- The differences between the experts' performance in terms of direction of interpreting is not big. The analysis reflects that the total number of inadequate renderings of lexical, syntactic, and cultural elements was 17 (6.5% of the total number of Rich Points) in the English into Arabic task. On the contrary, 11 renderings (4% of the total Rich Points) were inappropriately rendered during the SI task from Arabic into English. This result comes in line with the results of the experts' reports regarding which direction they feel more comfortable with during the renderings, as the majority of experts stated that it depends on several aspects such as the level of difficulty of the text, type of text, speech rate, etc.

Category	English into Arabic	Arabic into English
Number of inadequate renderings	17	11
Percentage	6.5%	4.5%

Table 40: Number and percentage of experts' inadequate renderings during both SI tasks.

- Regarding the strategies applied in each task, there was no big difference between the strategies applied by experts. In other words, experts applied 59 strategies during the Arabic into English task, whereas 47 strategies were used when interpreting in the other direction. All these strategies in both tasks were positive strategies that helped experts to overcome the difficulties of rendering the Rich Points.

6. Experts applied more strategies with rendering lexical aspects (proper names, numbers) during the English into Arabic task, as they used generalisation, approximation, and repair, which helped them convey the meaning of these aspects into the TT. On the other hand, only the strategy of generalisation was used with rendering Arabic proper names into English.
7. Regarding the rendering of syntactic elements (passive voice, collocation), no strategic solutions have been identified with rendering passive voice in both directions, except only one example of using the strategy of summarising when interpreting the Arabic passive voice into English. However, various strategies were applied during the rendering of collocations. In other words, experts used more strategies with rendering collocations in the Arabic into English task than in the other direction, as the strategies of approximation, inferencing, addition, summarising, and literal translation were used 23 times, while the strategies of skipping, approximation, inferencing, and generalisation were applied 13 times during the English into Arabic task.
8. Experts used various strategies with rendering cultural elements (cultural terms and structures, terms and structures with religious content) in both directions. In other words, strategies such as inferencing, addition, skipping, generalisation, reproduction, approximation, and summarising were applied 30 times during the English into Arabic task. On the other hand, almost the same strategies except reproduction were used 32 times during the Arabic into English task. Furthermore, the strategy of inferencing was the most frequent strategy applied by experts in both tasks, as the subjects relied on their knowledge, experience, and training to grasp the meaning from the context and apply it in the TT.
9. Experts were aware of the problems they encountered and the strategies they applied in both directions. According to their post-interpreting reflections, experts verbalised the difficulties they faced while interpreting the lexical, syntactic, and cultural elements, and the strategies they used to overcome these issues and even to avoid them during both tasks.

5.1.2.11 Reflections on the Experts' Study

This study shows that experts rendered the majority of lexical, syntactic, and cultural elements adequately during both SI tasks from English into Arabic and from Arabic into English. Besides, several examples of incomplete interpretations were identified when experts used strategies to overcome the difficulties of rendering the Rich Points. In the same line, experts reflected their successful use of interpreting strategies that help interpreters to overcome problems and reduce the cognitive load. The subjects expertly used the strategy of inference when they relied on the context to grasp the meaning rather than following the ST word by word, which also mitigates the cognitive load on interpreters.

Moreover, they applied specific techniques to prevent the occurrence of problems, particularly during the rendering of proper names and numbers, as these problem trigger elements are characterised by low redundancy, high informativity, and low predictability. The subjects used techniques such as starting the rendering of these elements once uttered by the speaker and paying more attention to these elements during the SI, which helped them to avoid encountering problems with rendering these elements.

Experts are aware of the problems that they face during both SI tasks, as their reports are always in line with the analysis of their interpreting recordings. Most of the experts' reports relate the problems of rendering the Rich Points to comprehension issues, particularly understanding and hearing the SL segments appropriately. In the same line, experts reported more problems when rendering cultural elements, particularly terms and structures with religious content, than other categories. They reportedly felt stressed and uncomfortable when they faced the problems, but this feeling showed their ability to overcome these issues by using the necessary strategies.

Moreover, in terms of directionality, this study reveals that no clear differences have been identified regarding the interpretation of lexical, syntactic, and cultural elements between both directions, as the subjects reportedly reflect that each SI task depends on various aspects such as the topic, difficulties in terminology, speech delivery rate, etc.

5.2 Novices' Study

As mentioned in the methodology chapter, two groups of seventeen novice interpreters participated in this experiment. The first group includes 9 female Saudi subjects who are in their fourth year of study at the Department of Translation, College of Languages, University of Princess Nourah Bint Abdulrahman, KSA. The second group consists of 8 Iraqi subjects (6 males and 2 females) who are also in the fourth year at the Department of Translation, College of Arts, University of Tikrit, Iraq.

As performed by experts, the novices conducted the experiment individually, due to the COVID-19 breakout, from their homes and because it was impossible to conduct the experiment for all the subjects at one time. As they were instructed, the novices started with filling in the pre-interpreting questionnaire; asking them general questions such as gender, age, experience in SI and training courses. Then, they conducted the first SI task, from English into Arabic. After that, they filled in the post-interpreting questionnaire, which basically asks the subjects questions related to the problems of rendering each rich point and the strategies applied to solve these problems. In order to investigate subjects' ability to identify the problems during the SI and to get more concrete data from them, every subject answered post-interpreting questions which were related to stress, feelings, directionality, problems, and strategies. On the other day, they conducted the Arabic into English task with the same steps performed in the English into Arabic task.

Starting from the English into Arabic task, the analysis of novices' interpretations started with measuring their renderings of the Rich Points and investigates the nature of inadequate renderings. Furthermore, an analysis of problem identification based on the subjects' reports was performed and provided with tables and charts that illustrate the product and process analyses. To preserve the anonymity of the subjects, novices were given codes starting with ST1 and ending in ST17. This part of the novices' study concludes with the results of novices' analysis of the problems encountered with rendering the Rich Points and the strategies used during each SI task.

5.2.1 Analysis of Novices' Renderings During the English into Arabic SI task

In this part, novices' interpretations for the Rich Points will be measured and provided with samples of novices' post-interpreting reports regarding the interpretations of the Rich Points. The analysis will start with novices' renderings for the proper names.

5.2.1.1 Analysis of Rendering Proper Names

The analysis of measuring novices' interpretations for the English proper names into Arabic indicates that novices produced various renderings. Novice's reports regarding the problems encountered during rendering Arabic names into English is found in **Appendix 34**.

Almost all of the novices have transferred "Marie David" into the TT appropriately. Although several subjects have not pronounced the name accurately, as 9 novices produced "Marry" instead of "Marie", their renderings were considered "Adequate". Moreover, the interpretation of ST17 was incomplete, as this subject provided "Maria" for "Merry", which required slight improvements. Therefore, it was ticked as "Improvable". Furthermore, no inadequate rendering was identified, as all novices rendered this name appropriately. The analysis of "San Francisco" indicates that the majority of the novices conveyed this name adequately into the TT. Most of the novices did not face difficulties with conveying this name, as 13 subjects adequately transferred the name into the TT. On the contrary, few interpretations were detected as "Inadequate" when these novices resorted to omitting this proper name, and two subjects produced an incorrect rendering when ST3 and ST15 respectively provided سان...كو ("San ...co") and اليونسكو ("ALUNESCO") which reflect different names. Hence, these renderings were ticked as "Inadequate".

The analysis of "The New York Times" indicates that the novices have provided various interpretations for this name. The analysis illustrates that 6 novices successfully transferred this name into the TT, as they produced نيويورك تايمز ("New York Times"). Hence, these renderings were ticked as "Adequate". Besides, 3 renderings were incomplete and required some improvements when ST1 and ST9 produced part of the proper name نيويورك "New York" and ST12 provided تايمز "Times". Therefore, these renderings were ticked as

“Improvable”. On the other hand, another 8 interpretations were detected as “Inadequate” when the subjects mainly resorted to omitting this proper name in the TT, in addition to the interpretation of ST4, which reflected a different meaning, as he provided “US” اليو اس.

Most of the subjects were unable to render the proper name “Honduras” هندوراس into the TT, as they resorted to omitting this name in the TT. The analysis shows that 14 subjects omitted this proper name in the TT, which was mainly due to the unfamiliarity of the name and recalling issues, as reported by these novices. Hence, all these renderings were ticked as “Inadequate”. On the other hand, ST2, ST8 and ST12 successfully rendered this proper name into the TT. Therefore, these renderings were considered “Adequate”. Similarly, the analysis of rendering “The Washington Post” reflected that most of the novices faced difficulties with rendering this name as they could not transfer it appropriately into the TT.

The analysis reflects that 12 novices resorted to omitting this proper name from their renderings. Besides, the rendering of ST2 was also inappropriate, as this subject produced “New York Post” which expresses a different name. Therefore, these renderings were labelled as “Inadequate”. Moreover, ST4 and ST6 respectively provided واشنطن (“Washington”) and واشنطن تايمز (“Washington Times”), which were not completely adequate renderings, as they correctly conveyed the first part of the proper name but failed to render the second part. Hence, they were ticked as “Improvable”. Moreover, ST7 and ST14 successfully interpreted this name as they transferred this name in the TT واشنطن بوست (“Washington Post”).

As for rendering “Mexico”, most of the novices transferred this name appropriately. The analysis shows that 13 novices successfully rendered this proper name into the TT, as they produced مكسيك (“Mexico”). Therefore, these renderings were ticked as “Adequate”. On the other hand, 4 renderings were detected as “Inadequate” when these novices resorted to omitting this name. Inappropriate renderings have been clearly detected during the analysis “The Wall Street” as the majority of novices resorted to omission. The analysis shows that 9 novices omitted this name from their renderings. Therefore, these interpretations were ticked as “Inadequate”.

Besides, the rest of the interpretations were considered “Adequate” when they correctly conveyed this name into the TT الـول سـٲرٲٲ (“Wall Street”). Moreover, no “Improvable” renderings were detected during the analysis of novices’ interpretations. The majority of novices successfully transferred the name “Obama”, as most of the renderings were ticked as “Adequate”. The analysis explains that 11 renderings were considered appropriate, which may be due to the familiarity of the name that novices did not face difficulties with conveying it into the TT. Furthermore, the rest of the novices resorted to omitting this name from the TT. Hence, these renderings were detected as “Inadequate”.

5.2.1.1.1 Analysis of Novices’ Reports Regarding the Interpretation of Proper Names

The analysis of novices’ post-interpreting reports, as explained in **Appendix 35**, shows that the subjects have reportedly related the problems of conveying the ST names to comprehension issues. That means the subjects faced difficulties with hearing the SL names appropriately, as 61% of the total reports were related to problems with comprehending the SL names. Moreover, other problems that related to the simultaneity of the task such as high SL input as compared to subject’s output are among the major problems reported by the novices, which represented 16% of the total reports. On the contrary, problems reported due to monitoring the interpretation such as interpreter’s awareness of time between the SL and the TL and other unanalysed problems were also stated by the subjects, which have registered 6% of the total reports. Below are examples of novices’ post-interpreting reports regarding the causes of the problems of rendering the names.

S.	Novices’ Reports
ST2	Due to the stress, instead of saying “Washington Post” I said “New York post”
ST3	I think time pressure behind my failure to interpret some of the proper names
ST7	I could not recall the proper names because it was difficult to recall them during the SI task.
ST10	I think I encountered problems with interpreting the names because I did not hear them properly
ST11	I did not listen well to some names such as I said UAE instead of USA.

Table 41: Novices’ post-interpreting reports regarding the interpretations of English proper names into Arabic.

Category	Subject	Adequate	Improvable	Inadequate
Proper names	ST1	5	1	4
	ST2	8		2
	ST3	7		3
	ST4	7	1	2
	ST5	7		3
	ST6	7	1	2
	ST7	8		2
	ST8	7		3
	ST9	4	1	5
	ST10	6		4
	ST11	2		8
	ST12	8	1	1
	ST13	8		2
	ST14	9		1
	ST15	3		7
	ST16	3		7
	ST17	5	1	4
Total		104	6	60
Ratio		61%	3.5 %	35.5%

Table 42: Total analysis of novices' renderings for the proper English names into Arabic.

Table 41 illustrates measuring novices' renderings of English proper names into Arabic. Indeed, more than half of the Rich Points (61% of the Rich Points) that referred to the names were adequately interpreted. Besides, 6 renderings (3.5% of the total renderings) were incomplete renderings that required some improvements to be considered accurate renderings. In contrast, 60 renderings (35.5% of the total renderings) were regarded as inappropriate, as the novices mainly resorted to omitting the names from the TT.

5.2.1.1.2 Nature of Novices' Inadequate Renderings of Proper Names

Although novices positively managed to render most of the names, there were inadequate renderings that were detected during the analysis. Thus, the analysis reveals that the inadequate renderings were mainly due to novices' recourse to a) omitting the names in the

TT and b) providing incorrect TT names. All the examples that show the nature of novices' inadequate renderings can be found in **Appendix 36**.

a) omitting the proper names

Measuring novices' renderings reflects that the novices mainly resorted to omission when they faced difficulties with providing the accurate ST names in the TT. Moreover, the analysis reveals that omitting these elements has a negative impact not only on these elements but also on the neighbouring segments as well.

In this table, ST8 and ST16 resorted to omitting the consecutive SL names of American newspapers "The New York Times, The Washington Post, The Wall Street" from the TT. Furthermore, this subject extended the omission to the proceeding elements as well when he produced *وان قضية المهاجرين.....وبالمناسبة فالحياة هنا ليست* ("the issue of immigrants...By the way life is ..."). ST10 also omitted the names; Mexico and Honduras from the TT. In the same line, ST11 did not include the name in his rendering, when this subject omitted "Obama" from the TT *.... اه اه اه اه* ("Immigrate from country to country and during the ruling period of ahahah ..."). Moreover, there were hesitations and pauses during the rendering of this example. Similarly, ST15 omitted the proper name in, "I don't think I know any place in the world that's more diverse in the world than the city of San Francisco. I remember when I visited ...", when this subject produced *لا اعتقد ان هناك بلد تستقبل مثل ال ال ال يونسكو وحاليا المهاجرون* ("I do not think there is any country receives like Al Al Al UNESCO...now immigrants are increasing in America..."). There were also hesitations and pauses during the rendering.

b) misinterpreting the proper names

The difficulties of rendering proper names led some of the subjects to make mistakes with transferring these elements appropriately. In other words, the analysis shows that the novices hesitated during their attempt to provide TT proper names, which obliged them to produce incorrect TT proper names. A table of novices' misinterpretations for the proper names can be seen in Appendix U. In this table, ST3 hesitated and paused when rendering the name "San Francisco", as he produced *كو..سان..الى* ("I went to ..San..Ko"). Similarly, ST6 struggled during the rendering of the SL name in, "New York Times", as this subject hesitated and paused: *اه اه اه ..ووواشنطن تايم* ("ahahah..wawashington Time").

Moreover, ST11 also faced difficulties with rendering “New York Times”, as there were hesitations and pauses during the rendering: مثل اه اه نيوز تايمر (“ahah... News Timer”).

5.2.1.1.3 Effects of Inadequate Renderings of Proper Names

The analysis of novices’ renderings for the names reflects that omitting and misinterpreting the names did not only affect the transference of names but also affected the neighbouring segments as well. This is in line with what is referred to as “carry over effect”, when the problem extends to other segments in the sentence (Birgitta and Tiselius, 2014). The analysis shows that ST4 faced difficulties with interpreting the proper names “The New York Times, The Washington Post”. Consequently, these difficulties have not only affected the interpretation of these names, but also the following segments, as he also resorted to omitting, “By the way, life here is not easy. It is difficult...”, which has a negative effect on the TT.

Similarly, ST8 omitted what comes before the names, as this subject deleted “is frequently addressed in the top headlines of many US newspapers, like”. ST11 not only omitted the ST name “Obama”, but also deleted the whole preceding sentence: “Tens of thousands of immigrants were allowed to live in the States during...”. This subject also hesitated and paused during the rendering of these names. The analysis of ST15’s rendering for “San Francisco” indicates that this subject omitted what comes before and after the proper name as he hesitated during the interpretation and provided a different name, “UNESCO”. Furthermore, ST16 hesitated and paused during the interpretation of the names which has a negative impact not only on the proper names but on the neighbouring segments as well: ...فالكثير من الجرائد توجه مشكلة الهجرة... (“they are ...many newspapers address the issue of immigration.... life here is not easy”).

5.2.1.1.4 Strategies Applied During the Rendering of Proper Names

The analysis of novices’ renderings and their post-interpreting reports shows novices did not apply any strategic solution that helps them to overcome the difficulties of rendering the SL names. Thus, they resorted to omitting the names when they encountered problems with

transferring the SL names, as the analysis indicated that 33% of names were omitted in the TT. Moreover, the analysis of post-interpreting reports did not identify any strategic behaviour used by the novices when they omitted these elements. Moreover, they could not apply any solution to remove the stress, hesitation, and pauses that were clearly identified during the SI task.

According to the analysis, more than half of the Rich Points that referred to English proper names were appropriately interpreted. However, novices encountered problems with conveying several examples of these names, which led them to mainly omit the Rich Points and, in a few cases, provide inappropriate renderings. Consequently, these problems have not only affected the rendering of the names but also the neighbouring items as well. No strategic behaviour has been clearly identified by the novices to overcome or even prevent the problems of rendering the names. Moreover, most of the novices did not report having difficulties with rendering the names, which reflects their unawareness of the mistakes they committed during rendering these elements. In contrast, few subjects reportedly related these problems to recalling issues, stress, and the complexity of the task.

5.2.1.2 Analysis of Rendering Numbers

The analysis of measuring novices' renderings for the number segments reflects that the novices encountered problems with rendering these segments, as various SL numbers were inadequately transferred. All the tables of novices' renderings for the English numbers can be found in **Appendix 37**. The analysis shows that the novices provided various renderings for the SL number "220 million". The analysis shows that 8 novices successfully conveyed the accurate number in the TT. Therefore, their renderings were considered "Adequate". Moreover, ST10 and ST13 applied strategies to overcome the difficulties of providing the accurate number, as ST10 used the strategy of generalisation when he interpreted it into *هناك العديد من الملايين* ("there were millions of...") and ST13 applied the strategy of approximation when he provided *حوالي 200 مليون* ("about 200 million"). These renderings were considered "Improvable" because they were not completely correct and require slight changes to be adequate renderings. In contrast, 7 interpretations were detected as "Inadequate" because they provided different ST numbers in the TT.

The majority of the novices faced difficulties with transferring “89.4” into the TT, as most of them could not provide adequate renderings. The analysis shows that only 4 renderings adequately transferred this number into the TT. Therefore, these renderings were ticked as “Adequate”. Besides, three novices produced interpretations that were not completely appropriate. Obviously, ST6, ST9, and ST12 applied the strategy of approximation when they provided “89 million”, which was close to the ST number segment. Hence, these renderings were identified as “Improvable”. However, 10 interpretations were ticked as “Inadequate” as they could not appropriately convey the correct number in the TT. Thus, seven of these novices resorted to omitting this number during their interpretations. Moreover, the novices reportedly confirmed having problems with recalling the correct SL numbers due to the complexity of the SI task.

Similarly, most of the novices could not convey the SL number “1606” in the TT appropriately. The analysis of “1606” indicates that most of the novices failed to adequately interpret this segment into the TT, as 13 interpretations were ticked as “Inadequate” when these novices resorted to omitting this segment in the TT. These novices reportedly related that to the difficulties in recalling this number as they believed this number was very difficult to be memorised. On the contrary, 3 renderings were appropriately conveyed into the TT. Therefore, these renderings were ticked as “Adequate”. Besides, one interpretation was ticked as “Improvable”, where ST3 applied the strategy of generalisation when he provided a general structure instead of the precise segment. In other words, this subject produced “in the past centuries”, which was a general reference to the ST number.

As for the rendering of “3%”, most novices were able to transfer this number into Arabic adequately. The analysis of “3%” shows that the majority of these novices successfully managed to provide the correct number in the TT. Hence, 11 renderings were ticked as “Adequate”. Besides, 6 renderings were considered inappropriate, as these novices could not convey this segment adequately. Thus, 5 of these renderings resulted from omitting this number from the TT, while ST5 produced the incorrect number “33%”. Therefore, these renderings were ticked as “Inadequate”. Moreover, the analysis reflects that no “Improvable” renderings have been detected with rendering this number.

various renderings have been identified during the analysis of novices' interpretations for the segment "12 billion dollars". The analysis expresses 7 novices failed to render this number when they could not adequately provide it in the TT. Among them, 5 novices resorted to omitting the SL number while ST10 and ST14 produced different SL numbers, respectively: يحولون الملايين من الدولارات ("Transfer millions of dollars") and يحولون 12 مليون ("move 12 million dollars"). Therefore, these renderings were considered "Inadequate". Furthermore, another 7 novices were able to correctly convey the SL number, which qualifies them to be ticked as "Adequate". Besides, 3 renderings were detected as incomplete that required some changes to be adequate. Other subjects such as ST8 and ST12 produced only "12" but did not add "billion", and ST16 used the strategy of generalisation when he provided "transfer a lot of money". Therefore, these renderings were ticked as "Improvable".

Novices encountered problems with rendering "2009", as the analysis shows that the majority of the novices failed to transfer this number appropriately. The analysis explains that 10 renderings were detected as "Inadequate", as most of them resorted to omitting this segment in the TT, while 7 novices successfully interpreted this number. Furthermore, no "Improvable" renderings were identified during the analysis of novices' renderings. Similarly, novices could not convey "2017" into the TT as most of the novices provided inadequate renderings. The analysis illustrates that 12 novices had problems with rendering this number as they resorted to omitting it from their renderings. Hence, these renderings were ticked as "Inadequate". Besides, 5 novices successfully transferred this segment into the TT. Furthermore, no "Improvable" rendering was detected during the analysis of novices' interpretations.

Most of the novices were able to convey the SL number "tens of thousands", as they conveyed the correct ST equivalent in the TT. The analysis indicates that 12 renderings successfully conveyed the SL number into the TT. One of these renderings was close in meaning to the original number when ST1 applied the strategy of generalisation, as he produced "thousands of ...". Hence, these renderings were ticked as "Adequate". Moreover, 5 renderings were considered "Inadequate" as 4 subjects (ST4, ST11, ST15, ST17) resorted to omitting the number from the TT, while ST6 expressed a different ST number: مئات الالاف من ("hundreds of thousands"). As for "thousands of years", novices were able to convey this numeric structure appropriately into TT. Almost all of the subjects were able to correctly

transfer this structure into the TT except ST5, as this subject omitted this structure from the TT. Therefore, all the renderings were ticked as “Adequate” except the rendering by ST5, which was considered “Inadequate”.

5.2.1.2.1 Analysis of Novices’ Reports Regarding the Interpretation of Numbers

The analysis of novices’ reports regarding the interpretation of numbers shows that comprehension issues, particularly hearing the SL numbers, are the main causes that led to providing inadequate ST numbers in the TT. These causes represent 45% of the total subjects’ reports. Similarly, problems that occurred due to simultaneity of the task, particularly the high delivery input as compared to subjects’ output, are also considered among the major problems that represent 45% of the total reports. Furthermore, reports that relate the problems to subjects’ monitoring aspects were 5% of the total reports. The analysis table of novices’ reports regarding novices’ renderings of numbers can be found in **Appendix 35**. Below are examples of novices’ reports regarding the causes of the problems of rendering the numbers.

S.	Novices’ Reports
ST2	I could not recall the numbers well as I said 20 instead of 220
ST5	Numbers make me nervous because they require accuracy and I needed more time to recall them.
ST6	I have very bad memory which did not help me recall the numbers
ST12	Number segments were difficult as 1606 and 89.4. I could not recall them
ST13	Numbers were extremely hard to catch
ST15	Focusing on other segments hindered catching the numbers
ST17	I encountered problems with numbers because I could not focus on them

Table 43: Novices’ reports regarding the interpretation of English numbers into Arabic.

Category	Subject	Adequate	Improvable	Inadequate
	ST1	7		2
	ST2	2		7
	ST3	7	1	1

Numbers	ST4	6		3
	ST5	3		6
	ST6	4	1	4
	ST7	5		4
	ST8	6	1	2
	ST9	7	1	1
	ST10	2	1	6
	ST11	1		8
	ST12	6	2	1
	ST13	6	1	2
	ST14	5		4
	ST15	1		8
	ST16	2	1	6
	ST17	3		6
Total		73	9	71
Ratio		48%	6%	46%

Table 44: Analysis of novices' renderings for the English numbers into Arabic.

It is clear from the analysis that the novices faced difficulties with rendering about half of the Rich Points that referred to English numbers. The analysis indicates that 46% of these Rich Points were inadequately rendered. Moreover, 6% were incomplete renderings that require slight improvements, as the novices applied the strategies of generalisation and approximation during the rendering of these elements. On the contrary, 48% of the Rich Points were adequately rendered into the TT, as the novices were able to transfer SL numbers into the TT appropriately.

According to the analysis, rendering number segments was considered one of the main problematic elements during the SI task because about half of the Rich Points that refer to numbers were inadequately rendered. Moreover, omitting these segments during the rendering was clearly identified, which explains the novices' inability to apply the necessary strategies that solve the problems or prevent them. In contrast, it was clear that applying few strategies such as generalisation and approximation was very helpful to overcome the problems and consequently keeps the communication between the speaker and the audience flowing. Despite the huge number of inadequate renderings of the number segments, about

half of the subjects did not report having problems with rendering these segments, which reflects their unawareness of the mistakes they committed. However, several novices reportedly confirmed having problems with interpreting numbers, as they related these problems to the hard nature of numbers, recalling, and comprehension issues.

5.2.1.2.2 Nature of Inadequate Renderings of Numbers

The analysis of novices' renderings for the number segments shows that about half of the number segments were inadequately rendered. These inappropriate renderings were mainly due to a) omitting the numbers in the TT, b) misinterpreting the numbers, as novices conveyed different numbers in the TT. All the examples that describe the nature of inadequate renderings of the novices can be found in **Appendix 36**.

a) Omission of numbers in the TT

Due to the problems with providing the accurate ST numbers in the TT, the majority of inadequate renderings were due to novices' recourse to simply omit these segments in the TT. In other words, 35% of the total segments were detected as inadequate, which resulted from omission. Undoubtedly, this omission has a negative impact on the interpreting process as it caused the loss of important information that has negative effects on the ST. ST7 omitted the ST number "12 billion". ST11 hesitated, paused, and then omitted the interpretation of numbers "2009 and 2017". Similarly, ST12 struggled when rendering the ST number "1606", as this subject hesitated and paused and then decided to omit this number from the TT. In the same line, ST14 omitted the ST number "89.4 million" from the TT. Moreover, novices reportedly related this omission of numbers from the TT to the difficulties of recalling these segments during the SI task.

b) Misinterpretation of numbers

The examples below show that the subjects had problems with providing the accurate ST numbers, as they resorted to producing incorrect TT numbers, which has a negative impact on the interpreting process and on the TT. ST2 hesitated during the rendering of the ST number "220 million" and then provided the inappropriate number "20 million". ST3 also encountered problems with conveying the ST number "2009", as this subject produced "2008". Moreover, there were remarks of hesitations and pauses during the renderings of

ST2 and ST3, which were reportedly due to the unrest and stress these subjects experienced during the rendering of numbers. Similarly, ST4 did not adequately convey the ST number “1606” when rendering, as this subject produced “1960”. ST5 could not transfer the accurate ST number, as this subject produced “33%” instead of “3%”. In the same line, ST8 unsuccessfully rendered the ST number “89.4 million” into “4.8 million”.

5.2.1.2.3 Strategies Applied During the Rendering of Numbers

As mentioned earlier, novices mainly resorted to omitting the ST numbers, as the analysis reflects that the novices deleted 35% of these elements. This explains the novices’ lack of strategic behaviour that can help them to overcome the problems or even avoid them, which we noticed with experts’ renderings. On the other hand, in a few examples the analysis shows that some of the novices used strategies when they confirmed in the post-interpreting reports that, in order to solve the problems of rendering the numbers, they applied the strategies of generalisation and approximation. All examples of novices’ use of strategies can be seen in **Appendix 38**.

The analysis of “220 million” shows that ST10 applied the strategy of generalisation when he did not convey the exact ST number, as he provided the general expression *العديد من الملايين* (“many millions”). Besides, ST13 used the strategy of approximation when he produced a number close to the original number *حوالي 200 مليون* (“about 200 million”). Furthermore, these subjects reportedly described what happened during rendering the ST numbers, as they stated:

ST10: I could not recall this number but I produced a general expression “many millions”.

ST13: I think I mentioned an approximate number.

In the same line, ST3 used the strategy of generalisation when rendering “in 1606” into *القرون الماضية* (“last centuries”).

This subject reportedly confirmed having a problem with rendering this number, as he stated: “Because of the A.D and her accent and the fast way of delivering I used a general structure”.

Another strategic behaviour has been detected with ST16's rendering when he applied the strategy of generalisation when rendering "12 billion dollar". This subject used a general structure rather than transferring the ST number, as he produced *الكثير من المال* ("a lot of money") instead of "12 billion dollars". Moreover, this subject reported in the questionnaire: "I made it general".

5.2.1.3 Analysis of Rendering Passive Voice

The analysis of measuring novices' renderings for the English passive voice into Arabic reflects that the novices positively managed to render most of these aspects into Arabic. This success is based on their ability to convey the meaning of the passive voice rather than focusing on the form of the TT. All analysis tables of novices' renderings of the English passive voice can be found in **Appendix 39**. The analysis of "Immigration is considered a problem" indicates that most novices conveyed the meaning of the ST passive voice into the TT appropriately.

The analysis illustrates that 12 subjects successfully interpreted the passive voice, though the interpretations of ST1 and ST14 required some changes, particularly in the form of the TT, as they respectively started the interpretations with the subject, which is uncommonly applied in the TL: *الهجرة هي تعتبر غالبا مشكلة* ("Immigration is considered often problem") and *الهجرة تعد مشكلة للعديد من الدول* ("Immigration is a problem for many countries"). These renderings were more literal because they did not consider the TL common word order, which starts with the verb. Moreover, ST5 used the verb of completion *تم* (tamma) in order to follow the ST passive voice word by word, as this verb was applied as the equivalent of the ST auxiliary verb.

Besides, four interpretations were ticked as "Inadequate", since ST8 produced an incomplete rendering when he only rendered part of the ST passive voice, *فان الهجرة تعتبر* ("Immigration is considered..."), which did not reflect the ST meaning. On the contrary, ST16 negated the passive structure while it was originally affirmative: *الهجرة لم تعد مشكلة* ("Immigration is not considered a problem"). Indeed, this rendering has a negative impact

on the original meaning. Moreover, ST9 and ST11 resorted to omitting this structure in the TT. Hence, all four renderings were ticked as “Inadequate”.

The analysis of “Terminology has been changed by the government” reflects that most novices adequately rendered it into Arabic, as the meaning was clearly preserved in their renderings. The analysis shows that 12 interpretations were ticked as “Adequate” since these novices were able to positively convey the meaning of the ST passive voice. Most of the subjects managed to provide appropriate TT renderings when they start their renderings with the verb of completion تم (“tamma”), as they followed the TT passive voice literally. Moreover, ST8 and ST9 skipped the subject when they used the verb “tamma”, which was acceptable when the context did not focus on the subject. Other subjects conveyed the meaning appropriately rather than paying attention to the TT structure, such as in the rendering of ST1 المصطلح قد تم تحوله من قبل الحكومة (“Terminology has been moved by the government”).

This rendering did not follow the common Arabic word structure that normally starts with the verb rather than the subject. ST2 and ST4 respectively rendered “terminology” into “laws” and “technique”, which were not accurate. However, the whole meaning of the passive structure was preserved. Hence, they were considered “Adequate”. Besides, the interpretations of ST7 and ST11 were incomplete renderings, as they respectively produced لكن الدولة اه اه ..رفضت تسميتهم بذلك الاسم (“This nature has been changed”) and (“But the government ah ah ah ..refused to call them with this name”). These renderings were ticked as “Improvable” because they were incomplete renderings that required some changes, in addition to the hesitation and pauses that were identified in the rendering of ST11. In contrast, three subjects failed to interpret this passive structure, as they mainly resorted to omission. Therefore, these renderings were considered “Inadequate”.

The analysis of rendering “The issue is frequently addressed in the American newspapers” indicates that most subjects were able to interpret this structure appropriately. The analysis shows that 11 renderings were considered “Adequate” because they have mainly conveyed the meaning of the ST passive voice, though some of these renderings were not completely accurate, as in ST2 وينشروا قصصهم في العديد من الصحف (“they publish their stories in many

local journals”), which was close to the ST meaning. Moreover, other renderings did not consider the Arabic common word order, as in the interpretations of ST7, ST12, ST13, and ST14 when they followed the ST literally.

Besides, the interpretation of ST4 required several changes to be adequate, as he did not refer to the main topic “immigration” when he produced هناك الكثير من المواضيع تنشر في العديد من الصحف (“There are many topics that were published in the many journals”). Hence, it was ticked as “Improvable”. On the contrary, 3 subjects provided “Inadequate” renderings, as ST1 and ST8 resorted to omitting this structure. Similarly, ST11 produced اه اه المشكلة انهم اه اه مثل مشاركين في بعض المجلات (“Ah ah the problem that they ah ah participate in several journals”). Indeed, it is a meaningless sentence that has marks of hesitation and pauses. Hence, all three renderings were ticked as “Inadequate”.

The majority of subjects were able to successfully render “the US was colonized by British” into Arabic, as they focused on conveying the meaning of this structure. The analysis shows that 9 renderings were ticked as “Adequate” when these subjects managed to convey the meaning of the ST passive structure in the TT. However, some of these renderings were incomplete, as ST3 skipped the subject “by British”, ST13 hesitated and then produced “ahahah America was colonized”, and ST1, ST4, and ST17 followed the ST word by word. However, these renderings were considered appropriate as they relatively preserved the meaning of the passive voice, while 7 subjects resorted to omitting the passive voice. Therefore, these renderings were considered “Inadequate”. Furthermore, most of the subjects seem unaware of these difficulties, as they reportedly denied having problems with rendering this structure.

As for the analysis of “who used to be called illegal immigrants”, the subjects successfully rendered this structure into the TT when they focused on conveying the meaning. Several subjects rendered this structure into active voice when they added the subject (“we call them”), as in the renderings of ST2, ST8, ST11, ST12, ST13, and ST14, which did not have a significant effect on the ST meaning. Besides, the interpretation of ST1 which was not accurate and required some improvements; الذين يطلق عليهم اليكل عفوا يطلق عليهم (“Those who were called Illegal sorry they were called”). This subject reproduced the same term “Illegal”

in the TT and then repaired it (عفو "sorry"), but he did not express the complete ST meaning. Hence, this rendering was ticked as "Improvable". Moreover, only ST15 resorted to omitting this passive voice in the TT. Therefore, his rendering was considered "Inadequate".

The analysis of "It was deemed unfair" shows that most of the subjects resorted to omitting it in the TT. The analysis shows that 4 subjects rendered this passive structure appropriately, as ST1 followed ST passive voice by using the verb "tamma": تم اعتبارها ("it was considered"). Besides, ST8, and ST10 also rendered it into a TT active voice يبدو ("it seems") and ST12 produced a TT passive voice هذا المصطلح يعتبر ("this terminology is considered"). In contrast, 13 subjects resorted to omitting this structure in the TT. Moreover, all these subjects did not report having problems with rendering this structure, which reflects their unawareness of the problems they encountered during the interpreting task.

The subjects tackled the rendering of "Immigrants were allowed to live in States" differently. The analysis illustrates that 8 novices failed to render this passive structure appropriately, as 5 of them resorted to omitting the whole structure in the TT. Moreover, another 3 subjects provided an opposite meaning, as ST2, ST4, and ST14 respectively produced المهاجرين غير ("they were not allowed to live in ..."), لم يسمح لهم بالعيش في امريكا ("Immigrants were not allowed ..."), and المهاجرين سمح لهم بمغادرة الولايات المتحدة ("Immigrants were allowed to depart the States"), which express the opposite meaning of the original passive voice. Hence, all these renderings were ticked as "Inadequate". Meanwhile, 8 renderings successfully rendered this structure into the TT, as ST3, ST7, ST8, ST13 and ST17 rendered it literally, in addition to ST5, ST6, ST9, and ST10 who provided a TT passive structure which starts with the verb سُمِحَ ("were allowed"). Furthermore, the interpretation of ST13 was detected as "Improvable", since the meaning was incomplete when this subject produced the inaccurate verb "were allowed to go" rather than "were allowed to stay".

Various renderings have been detected during the analysis of "Immigration was regarded as help for developing countries". The analysis illustrates that 8 renderings were ticked as "Inadequate" when 6 of them omitted this passive voice. Moreover, ST9 and ST15 provided

inappropriate TT renderings when they produced, respectively: *تعتبر الهجرة اه اه اه كككككك وسيلة* (“Immigration is considered ah ah ah ah as as as”) and *اه اه كانت تعتبر كجججج اه اه على البلدان النامية* (“Ah ah it was as a hell ah ah on the”). Thus, there were hesitations and pauses during the renderings of these two subjects. Besides, the interpretation of ST4 was incomplete and required some improvements, particularly with regard to the meaning *كانت الهجرة تعبر على تطوير الاقتصاد* (“Immigration was expressing the development of the economy”). Therefore, it was considered “Improvable”. Furthermore, 8 renderings were regarded “Adequate” since 6 subjects successfully produced a TT passive equivalent *تُعتبر الهجرة* (“immigration is regarded”) and ST8 used TT verb of completion “tamma” to follow the ST passive voice *تم اعتبار الهجرة* (“immigration has been considered”), while ST3 used TT active voice *كانت تساعد* (“immigration was helping the countries”).

5.2.1.3.1 Analysis of Novices’ Reports Regarding the Interpretation of Passive Voice

The analysis of novices’ reports regarding the interpretation of passive voice shows comprehending these structures, particularly perceiving them and finding the precise meaning, are the main causes for the problems, as 53% of the total reports were related to these aspects. Moreover, monitoring the interpretation in terms of verifying the TL message according to TL rules before the production and other unanalysed problems are also reported by the subjects, which represented 20% of the total reports. In contrast, reports related to problems that occurred due to the simultaneity of the task registered 7% of the total reports. A table of novices’ reports regarding the problems of interpreting passive voice can be found in **Appendix 35**.

Below are the novices’ reports regarding the problems of interpreting passive voice, which are mainly related to comprehension issues.

S.	Novices’ Reports
ST9	I deleted “the US was colonized by the British” because I could not follow up with the speaker.
ST12	I think I did not convey passive structures appropriately as I rendered literally

ST14	I did not recall some examples like “tens of thousands of people were allowed to live in the States” so, instead of “live” I thought it was “leave”.
ST15	I did not understand this sentence “the US was colonized by the British”.
ST16	I skipped the passive structures because I think I did not hear them well

Table 45: Novices’ post-interpreting reports regarding the interpretation of English passive voice into Arabic.

Category	Subject	Adequate	Improvable	Inadequate
Passive voice	ST1	4	1	3
	ST2	5		3
	ST3	7		1
	ST4	5	2	1
	ST5	6		2
	ST6	6		2
	ST7	6	1	1
	ST8	6		2
	ST9	4		4
	ST10	5		3
	ST11	1	1	6
	ST12	7		1
	ST13	6	1	1
	ST14	5		3
	ST15	2		6
	ST16	2		6
	ST17	7		1
Total		84	6	46
Ratio		61.5%	4.5%	34%

Table 46: Analysis of novices’ renderings of the English passive voice into Arabic.

The analysis illustrates the number of “Adequate” interpretations of passive voice, which counted 84 of the total number of English passive structures (61.5% of the total Rich Points that referred to passive voice). Moreover, these renderings successfully expressed the TT passive and active equivalents which appropriately conveyed the meaning of the ST. Besides, those renderings that were not completely correct and required some improvements

represent 4.5% of the total ST passive structures. On the contrary, novices failed to render 34% of the total number of passive structures, as they mainly resorted to omission and also conveyed incorrect renderings. Furthermore, most of the novices denied having problems during the rendering of passive voice. However, some of them related these problems to comprehension, recalling, and the delivery speed.

5.2.1.3.2 Nature of Inadequate Rendering of Passive Voice

The analysis of novices' renderings for the ST passive voice reflects that 36% of the Rich Points that refer to passive voice were considered inadequate renderings. The analysis of these inadequate renderings shows that the novices encountered problems with rendering these elements, which led them to mainly omit them and also provide inappropriate renderings. All the examples that describe the nature of novices' inadequate renderings of passive voice can be seen in **Appendix 36**.

a) Omitting the passive structure

Most of the inadequate renderings were due to novices' recourse to deleting the passive structure in the TT. This means approximately 33% of the total number of passive structures were omitted by novices during the SI task, which has a negative impact on the TT. Moreover, omitting these elements not only affected the passive voice but also the neighbouring segments as well.

As it is clear from the examples, novices resorted to omitting the passive structures when they faced difficulties with rendering the passive voice. The analysis also shows that ST5 omitted the ST passive voice in ("the US was colonized by the British"). ST6 resorted to omitting the ST passive voice in ("it was deemed unfair to call"). Similarly, ST13 could not render ("this terminology has been recently changed by the government"). Therefore, this subject omitted this structure in the TT. In the same line, ST15 encountered problems with rendering ("Tens of thousands of immigrants were allowed to live"), as this subject hesitated and used meaningless terms during the rendering of the passive structure then skipped to the next structure.

b) Misinterpreting the passive voice

Another aspect of inadequate renderings was the misinterpretation of the ST passive voice in the TT, particularly when the subjects reflected a different ST meaning. Moreover, remarks of stress, hesitations, and pauses were detected coinciding with rendering the passive voice. The analysis shows that ST2 rendered (“It was deemed unfair”) into الذين الذين لا يحصلون على (“Who are nonono do not get ...”). ST9 could not provide an appropriate rendering for (“Immigration was regarded as a help”), as this subject produced ... ان الهجرة اه اه ككككك كوسيلة ل (“Immigration is ahahahah ... as means ...”). Moreover, in (“The issue is frequently addressed”), ST11 could not manage to render the passive voice when he provided a different ST meaning اه اه المشكلة انهم مثل المشاركين في المجالات (“Ahah the problem they are as participants in journals”). Similarly, ST14 produced an opposite ST meaning when rendering (“Thousands of immigrants were allowed to live in the States”), as this subject provided الالاف من المهاجرين سمح لهم بمغادرة الولايات المتحدة (“Thousands of immigrants were allowed to depart the US”). In the same line, ST15 inappropriately rendered (“Immigration was regarded as a help...”) into اه اه كانت تعتبر كالجحيم (“It was considered as a hell”).

According to the analysis, the majority of passive structures appeared in the ST were successfully interpreted into Arabic, as novices aimed at providing TT passive and active equivalents which preserved the meaning of the ST. However, the novices encountered problems with interpreting the passive structures, as they resorted to omitting these elements and misinterpreting them. Furthermore, most of the subjects were unaware of the mistakes they made with rendering the SL passive voice, as the majority of these subjects denied, in the post-interpreting reports, having problems with rendering the passive voice. In the same line, few subjects reportedly related these problems to comprehension issues, recalling, and speech delivery rate that affected their performance.

5.2.1.3.3 Strategies Applied During the Rendering of Passive Voice

The analysis of novices’ renderings for the passive voice and their post-interpreting reports indicates that there was no strategic behaviour that the novices applied when rendering these aspects. In other words, novices aimed at providing TT passive equivalents by using the

verb of completion (“tamma”) to replace the ST auxiliary verb as Arabic does not have auxiliary verbs. In contrast, most of the inadequate renderings were due to omitting these elements, as 33% of the total passive structures were omitted.

5.2.1.3.4 Analysis of Rendering Collocations

The analysis of measuring novices’ renderings of the English collocations into Arabic shows that novices produced various renderings. Analysis tables of novices’ renderings of English collocations can be found in **Appendix 40**. Most of the subjects positively managed to convey the meaning of the collocation “It is not a piece of cake” into Arabic. The analysis reflects 14 novices succeeded to convey the meaning of this structure and to express it in the TT. Moreover, ST6 and ST15 expressed explicit meaning of the collocated structure, as they respectively produced الحياة هنا صعبة (“life is difficult here”) and تعتبر صعبة (“it is considered difficult”). Therefore, these renderings were considered “Adequate”. Moreover, 3 subjects interpreted this collocation literally, as ST3, ST5, and ST7 produced قطعة كعك (“piece of cake”) and قطعة حلوى (“piece of sweet”), which do not reflect the intended meaning of the ST. Hence, these interpretations were regarded as “Inadequate”.

In contrast, most of the subjects were unable to render “exert a lot of effort”, as they mainly resorted to omitting this structure in the TT. The analysis shows that 10 renderings were considered “Inadequate” since 8 subjects omitted this structure from the TT. Most of those subjects were unaware of the mistakes committed as they reportedly denied having problems with rendering this collocation while a few others related that to their inability to provide a TT equivalent. Furthermore, the interpretations of ST1 and ST3 were inappropriate, as they respectively provided different meanings: يصرفون العديد من الجهود في (“They spent a lot of efforts to”) and قبلوا بالتأثير الحاصل عليهم (“They accepted the influence imposed on them”). Hence, all these renderings were ticked as “Inadequate”. Besides, 7 subjects managed to appropriately render this collocation as they managed to convey the ST meaning in the TT. Therefore, these renderings were considered “Adequate”.

Similarly, the subjects faced difficulties with rendering “arduous process”, as the majority of the subjects resorted to omitting this collocation in the TT. The analysis shows that 11

subjects omitted this collocation. Therefore, they were ticked as “Inadequate” while 6 renderings were considered “Adequate” when these subjects successfully rendered this collocation into the TT. In other words, ST2, ST10, ST14 and ST16 produced the implicit meaning of the ST when they provided عملية صعبة (“hard process”). Furthermore, ST3 and ST9 managed to provide the TT equivalent when they rendered it into عملية شاقة (“arduous process”). Similarly, ST13 also expressed the meaning of the ST and produced ليس من السهل (“it is not easy”).

The analysis of rendering “Myriads of Africans” reveals that the majority of subjects provided incomplete renderings which required some improvements to be considered adequate. The ST collocation means “huge number of ...”. Therefore, 9 subjects provided incomplete renderings when they determined a specific number before “Africans”, as in the renderings of ST2 ملايين الافارقة (“millions of Africans”), ST4 and ST8 الاف الافارقة (“thousands of Africans”), and when ST3 and ST13 respectively produced بعض الافارقة (“some of the Africans”) and العديد من الافارقة (“many of the Africans”). Moreover, ST1, ST5, ST10, ST15, and ST16 resorted to omitting “myriads”, which has not relatively affected the meaning as they kept “Africans” in the TT. Hence, all these renderings were ticked as “Improvable”. Besides, 8 subjects rendered this structure adequately since they provided the accurate TT equivalent. Therefore, these renderings were considered “Adequate”.

Similarly, the analysis of “detrimental effect” indicates that the novices provided incomplete renderings that required slight changes to be appropriate. Almost all of the novices provided incomplete renderings when 7 subjects produced تأثير كبير (“great effect”). ST4, ST6, and ST17 provided تأثير مهم (“important effect”), ST13 rendered it into تأثير قوي (“strong effect”), ST16 interpreted it into اثار جدا عديدة (“many effects”), and ST2, ST10, and ST12 omitted “detrimental” and only rendered “effect”, which made it unclear whether this effect was negative or positive while the ST collocation referred to “negative effect”. Hence, all these renderings were ticked as “Improvable”. On the other hand, only ST11 successfully interpreted this collocation into تؤثر بشكل شديد وسيئ (“It affects severely and badly”), which implied the negative effect of immigration.

Another collocation structure that novices had problems to render was “take risks”, as more than half of the subjects were unable to provide appropriate renderings. The analysis shows 9 subjects failed to render this collocation adequately, as 7 subjects resorted to omitting this collocation in the TT. Moreover, ST13 and ST16 produced inappropriate renderings when they provided a word-for-word rendering: يتخذون المخاطر (“take risks”). Hence, these renderings were ticked as “Inadequate”. On the other hand, 8 subjects successfully managed to provide an ST equivalent when they rendered it into يخطر المهاجرون (“immigrants jeopardize”) and يجازف المهاجرون (“immigrants take risk”), which have the same ST meaning. Therefore, they were considered “Adequate”.

The analysis of “paid a visit” shows that the novices did not encounter problems with interpreting this collocation, as the majority of the subjects provided adequate renderings. The analysis shows that 15 subjects were able to provide an ST equivalent, as they produced respectively زرت and ذهبت الى (“visited” and “went to”), which have the same ST meaning. Hence, these renderings were ticked as “Adequate”. Besides, two renderings were considered “Inadequate”, as ST3 rendered this collocation into اشتقت الى (“I missed”), which reflected a different ST meaning, in addition to ST15, who deleted this collocation from the TT. Therefore, both renderings were considered “Inadequate”.

More than half of the novices rendered “crowds of undocumented people” appropriately. The analysis reflects that 9 interpretations successfully expressed the meaning of the ST collocation. Among them, ST1 and ST13 positively managed to provide a precise equivalent when they produced حشود من الناس (“crowds of people”). Others, such as ST4, ST6, ST8, ST10, and ST12 produced هنالك العديد من (“there are many of those”), which is close to the ST meaning. Therefore, these renderings were ticked as “Adequate”. Besides, 3 renderings were incomplete, as ST2 and ST5 produced inaccurate renderings respectively هناك من المهاجرين (“There are among those immigrants”) and هؤلاء الأشخاص الذين (“those people who”), and ST7 rendered it into هنالك العشرات الاف من (“there are tens of thousands of”), as he added “tens of thousands”. Therefore, these renderings were ticked as “Improvable” since they required several changes to be considered “Adequate”. On the contrary, 5 subjects resorted to omitting this structure, which made them to be ticked as “Inadequate”.

5.2.1.4.1 Analysis of Novices' Reports Regarding the Interpretation of Collocations

The analysis of novices' reports regarding the interpretation of collocations reveals that comprehending these elements in terms of perceiving the SL collocations appropriately, failure to access the SL meaning, and the lack of background knowledge are considered the main causes of the problems, as they registered 84% of the total reports. Furthermore, the subjects reportedly related the problems with rendering collocations to difficulties in accessing the accurate TT renditions and finding the precise equivalent, as the percentage of these reports was 12% of the total reports. In contrast, 4% of the reports reflect problems that occurred due to subjects' effective ST producer.

A table of novices' reports regarding the problems of rendering collocations can be found in **Appendix 35**.

Below are some of the subjects' post-interpreting reports regarding the interpretation of collocations, which are mainly related to comprehension issues.

S.	Novices Reports
ST6	I did not have time to provide the correct ST collocations.
ST8	I relied on my information during the interpretation of collocations.
ST5	I interpreted "a piece of cake" literally, but then I remembered it is an idiom expression.
ST12	Some collocations like the meaning of "detrimental" was erased from my brain so I said it generally "effect of immigration".
ST15	Collocations were difficult like "piece of cake", I couldn't say it because I didn't know what she was talking about.

Table 47: Novices' reports regarding the interpretation of English collocations into Arabic.

Category	Subject	Adequate	Improvable	Inadequate
	ST1	4	2	2
	ST2	3	3	2
	ST3	2	3	3
	ST4	4	2	2
	ST5	3	2	3
	ST6	5	1	2
	ST7	5	2	1

Collocations	ST8	4	2	2
	ST9	6	1	1
	ST10	5	2	1
	ST11	4		4
	ST12	6	1	1
	ST13	4	2	2
	ST14	5	1	2
	ST15	1	2	5
	ST16	3	2	3
	ST17	5	1	2
Total		69	29	38
Ratio		51%	21%	28%

Table 48: Total analysis of novices' renderings of English collocations into Arabic.

The analysis explains novices' adequate rendering for approximately half of the English collocated structures into Arabic, as they were able to convey the meaning and even provide TT equivalents. Besides, approximately 21% of the total collocated structures were incompletely interpreted, as novices omitted part of the collocations and provided incomplete renderings. In contrast, 28% were ticked as "Inadequate" renderings when the novices mainly resorted to omitting the collocations and misinterpreted these structures through the use of word-for-word renderings.

5.2.1.4.2 Nature of Inadequate Renderings of Collocations

The analysis of measuring novices' interpretations illustrates that the novices encountered problems with renderings collocations. These problems led the novices to make mistakes with rendering collocations, as they omitted all or part of these structures, and also to following the ST word for word. Moreover, novices reportedly related that to the lack of equivalents and to time pressure. All the examples of novices' inadequate renderings can be found in **Appendix 36**.

- a) Omitting the collocation

The analysis indicates that the novices resorted to omitting 23% of the total collocated structures in the TT. Undoubtedly, this omission has a negative impact on the interpreting process and on the meaning of the TT.

Obviously, the examples above show that the subjects omitted the collocated structures, which affected the meaning of the TT. In other words, ST1 omitted the (“arduous process”), while ST2 hesitated and then decided to skip “take risk”. Similarly, ST8 preferred to omit the collocated structure “exert a lot of effort” and ST15 also resorted to omitting the collocation (“I paid a visit”). In the same line, ST16 encountered problems with rendering the collocation when this subject, after hesitation and pauses, decided to omit the collocation “crowds of those undocumented people”. Moreover, the analysis shows that this omission has not only affected the collocations but also the neighbouring segments in the TT. Besides, the subjects reportedly related the reasons of this omission to the unavailability of the equivalents and to recalling issues.

b) Interpreting collocations literally

Another source of problems that followed omission was the word-for-word rendering of the collocations. The analysis reveals that, in several examples, the subjects rendered collocations literally, which reflected different ST meaning.

The subjects literally rendered “piece of cake” into *قطعة حلوى* (“piece of sweet”) and *قطعة كعكة* (“a piece of cake”), which would not make sense for a TT audience. Moreover, they did not report having problems with rendering this collocation, which reflects their unawareness of this problem. Similarly, ST13 and ST16 rendered “take risks” literally, which affected the ST meaning. Indeed, these subjects produced *يأخذون المخاطر* (“take risks”) which was not a clear rendering because it does not reflect the ST meaning in the TT. Moreover, these subjects were unaware of the problems they encountered, as they did not report having problems with rendering this collocation.

5.2.1.4.3 Strategies Applied During the Rendering of Collocations

As stated earlier, the analysis of novices' renderings regarding the interpretation of collocations reveals that novices mainly resorted to omission, particularly when they faced the difficulties of rendering the collocations. In other words, 23% of inadequate renderings were due to omission. Moreover, word-for-word rendering was clearly identified when rendering the collocations, which also has a negative impact on the TT. All examples of novices' use of strategies can be seen in **Appendix 38**. The analysis reflects that only one subject applied the strategy of inferencing during the interpretation of "arduous process". ST13 inferred the meaning of the collocated structure when he produced ليس من السهل ("it is not easy"). Moreover, this subject reportedly indicates that he relied on the context to provide the meaning of this collocation.

According to the analysis, novices were able to adequately interpret half of the SL collocated structures into the TT, as they managed to provide the ST equivalents adequately. However, inadequate renderings were detected in terms of omission and literal translation, which have negatively affected the TT. Moreover, most of the novices reportedly denied facing difficulties or making mistakes with rendering collocations, while few novices reportedly related these mistakes to the difficulties of providing equivalents and to recalling issues.

5.2.1.5 Analysis of Culture Specific Terms and Structures

The analysis reflects that the novices dealt with culture specific terms and structures differently. The novices managed to convey the meaning of these aspects and, in other occasions, they failed to adequately render these aspects when they resorted to omitting them from the TT. All the tables of analysing novices' renderings of the culture specific terms and structures can be found in **Appendix 41**. The analysis of "the lion's share" shows that most of the novices successfully rendered this structure, as they conveyed the meaning appropriately. This structure is applied in the TT as well. Therefore, literal translation is considered an adequate rendering as it reflects the meaning appropriately. Indeed, several subjects provided literal renderings as: ST1 نسبة الاسد ("lion's percent"), ST4, ST7, ST8 حصة الاسد ("lion's share"), ST12 نصيب الاسد ("lion's share"). On the contrary, others conveyed the meaning of the ST structure, as ST3: ان الحصة الاكبر من المهاجرين ("the largest

share of immigrants”), ST5: النصيب الاكبر (“the largest part”). ST6 and ST13 provided تحتل المركز الاول (“considers number one”), and ST16 provided المنصب الاكبر (“largest position”). Therefore, all these renderings were ticked as “Adequate”.

Besides, several renderings were incomplete because they did not reflect that “the US has the largest share of the immigrants in the word” but they were close to the ST meaning. Therefore, the renderings of ST2, ST15, ST17, respectively: يوجد الكثير من المهاجرين (“there are many immigrants in”), and ST10: العديد من المهاجرين (“a lot of immigrants”) were considered “Improvable”. Furthermore, ST9, ST11, and ST14 resorted to omitting this cultural structure in the TT, which led to their renderings being ticked as “Inadequate”.

The analysis of “bloody documents” explains that the subjects faced difficulties with rendering this structure, as most of them either omitted the word “bloody” or even the whole structure. As we see, 6 renderings were ticked as “Improvable”, as they were incomplete and required some improvements when ST1, ST8, ST9, ST10, ST17 and ST12 omitted the word “bloody” from their renderings, which were unclear as they did not specify the type of documents in the TT. Besides, 5 renderings were considered “Adequate” when the novices provided the meaning of the ST cultural structure. Hence, all the following renderings refer to the ST cultural structure appropriately; ST2 الوثائق المطلوبة (“the required documents”), ST3 المستندات المطلوبة (“original documents”), ST4 and ST13 الوثائق الرسمية (“official documents”), and ST5 الوثائق القانونية (“legal documents”). In contrast, 6 renderings were ticked as “Inadequate” when ST6 and ST7 rendered it literally into وثائق الدم (“blood documents”), which reflected a different meaning in the TT, while ST11, ST14, ST15, and ST16 resorted to omitting this structure from the TT.

Most of the subjects were able to convey the meaning of “immigrants feel at home”, as rendering this structure literally did not reflect the implicit meaning of the ST. Indeed, 11 subjects successfully conveyed the meaning of the cultural structural as they avoided the literal translation, but they focused on conveying the implicit meaning. Therefore, these renderings were considered “Adequate”. Besides, 6 renderings were ticked as “Inadequate”, when ST2, ST14, and ST16 resorted to omitting this structure from the TT and ST3, ST4,

ST11 followed a word-for-word rendering which did not reflect the meaning of the ST. Moreover, no improvable renderings were detected during the analysis.

The majority of the subjects faced difficulties with rendering “melting pot”, as they have mainly resorted to omitting this structure from the TT. The analysis reveals that 11 novices failed to interpret this cultural structure appropriately, as 10 subjects resorted to omitting it from the TT, in addition to the rendering of ST9 which expressed different meaning: جامعة الاوراق (“documents’ collector”). Therefore, these renderings were ticked as “Inadequate”. On the other hand, 5 subjects rendered it appropriately when ST8 provided the ST equivalent قدر الانصهار (“melting pot”). Moreover, ST3, ST6, ST10 and ST13 relatively expressed a similar ST meaning, as they respectively produced: متعددة الجنسيات (“multi nationals”), بلد متعدد الاصول (“multi origins country”), تحتوي على العديد من الشعوب (“contains many people”), تسمى بالبلد المختلطة (“It is called a mixed country”). Therefore, these renderings were ticked as “Adequate”. Besides, the rendering of ST12 was considered “Improvable” when this subject provided the incomplete rendering لدينا اشخاص من حول العالم (“We have people from all over the world”) which required more improvements.

The cultural expression “boyfriend” was rendered adequately by most of the novices, as they understood the meaning. Indeed, 13 subjects successfully rendered this expression, as 11 of them produced صديقي (“my friend”) and ST3 and ST13 provided other TT equivalents when they produced, respectively, صاحبي (“companion”) and شريكي (“partner”), which have the same ST meaning. Therefore, these renderings were considered “Adequate”. Besides, the rendering of ST14 was not preferable within the TT context, as this subject provided حبيبي (“lover”). Hence, this rendering was ticked as “Improvable”. In contrast, 3 renderings were ticked as “Inadequate”, as ST10, ST15, and ST17 resorted to omission.

As for “full-blooded Americans”, according to the ST context it referred to original Americans. Hence, rendering this structure into “Americans” was considered appropriate because it conveyed the meaning of the ST structure. The analysis shows that the majority of novices were able to render this structure appropriately, as 7 subjects omitted “full blooded” and interpreted only “Americans”. ST3, ST4, and ST13 conveyed the meaning when they produced السكان الاصليين (“original people”), and ST12, ST16, and ST17 provided

an ST equivalent. Therefore, all these renderings were ticked as “Adequate”. Furthermore, 4 novices resorted to omitting this cultural structure from the TT. Hence, the interpretations of ST1, ST9, ST11, and ST15 have been considered “Inadequate”.

The analysis of “selling hot dogs” indicates that the subjects rendered this structure differently. The analysis shows that 7 subjects successfully provided the ST equivalent when they interpreted this structure into نقانق “hot dogs”. Besides, the interpretations of ST2, ST6, ST7, and ST14 were incomplete, as these subjects reproduced this expression in the TT “hoot doog”. Since reproducing this expression was considered “Improvable” in the experts’ analysis because it is treated as a loan word, these four renderings were also considered “Improvable”. On the contrary, 6 subjects resorted to omitting this expression in the TT. Hence, these renderings were considered “Inadequate”. The cultural expression “hell” was omitted by most of the novices, which caused it to be considered “Inadequate”. The analysis shows that 12 subjects deleted this expression, which were ticked as “Inadequate”. Most of those subjects reported in the post-interpreting reports that they did not face difficulties with rendering this expression. In contrast, 5 renderings were ticked as “Adequate”, since these subjects successfully conveyed the ST equivalent جهيم (“hell”).

5.2.1.5.1 Analysis of Novices’ Reports Regarding the Interpretation of Culture Specific Terms and Structures

The analysis of novices’ reports reflects that comprehension issues were the main causes of the problems with rendering the cultural terms and structures, particularly in perceiving and finding the precise meaning of these elements, as they counted for 67% of the total reports. This may be due to subjects’ recourse to literal translation rather than providing cultural equivalents. Moreover, monitoring the interpretation is another major reason for the problems, as they registered 20% of total reports. Besides, 8% of the reports were related to problems that occurred due to the simultaneity of the task in terms of difficulties related to the high SL input in relation to subjects’ output.

Novices’ reports regarding the problems encountered during the interpretation of culture specific terms and structures can be found in **Appendix 35**. Below are examples of novices’

reports regarding the interpretation of culture specific terms and structures, which are mainly related to issues in comprehension and monitoring.

S.	Novices' Reports
ST3	For some cultural expressions, I relied on the context such as melting pot and full-blooded Americans
ST5	Because of the time pressure I followed some of the cultural words literally
ST15	Cultural expressions were difficult and required more time to be interpreted.
ST16	I interpreted literally because I did not have enough time to find cultural equivalent
ST17	I tried to find a cultural equivalent but I could not recall them.

Table 49: Novices' reports regarding the interpretation of English cultural terms and structures into Arabic.

Category	Subject	Adequate	Improvable	Inadequate
Culture specific terms and structures	ST1	3	1	4
	ST2	3	2	3
	ST3	7		1
	ST4	5		3
	ST5	7		1
	ST6	5	1	2
	ST7	4	1	3
	ST8	5	1	2
	ST9	3	1	4
	ST10	4	2	2
	ST11	1		7
	ST12	6	2	
	ST13	8		
	ST14	3	1	4
	ST15	1	1	6
	ST16	3		5
	ST17	2	2	4
Total		70	15	51
Ratio		51.5%	11%	37.5%

Table 50: Total analysis of novices' renderings for the English cultural terms and structures into Arabic.

As it is clear from the analysis, more than half of the English cultural terms and structures were adequately rendered into Arabic, as the subjects were able to provide TT equivalents and convey the meaning of these elements. Aside from that, 11% of these elements were incomplete and required some improvements to be adequate renderings. In contrast, 37.5% of these elements were inadequately rendered as the subjects mainly resorted to omission and also to word-for-word renderings.

5.2.1.5.2 Nature of Inadequate Renderings of Culture Specific Terms and Structures

The analysis of measuring novices' renderings for cultural terms and structures shows that the subjects faced difficulties with rendering these elements, which led them to make mistakes that affected the meaning of the TT. These inadequate renderings were due to a) omission, and b) literal translation. All the examples of the nature of novices' inadequate renderings can be found in **Appendix 36**.

a) Omitting the culture specific terms and structures

As mentioned earlier, the subjects faced difficulties with rendering cultural terms and structures, which led them to mainly omit these elements. Indeed, 33% of the cultural terms and structures were omitted during the SI task. The analysis illustrates that the subjects resorted to omitting the cultural terms and structures, which affected the TT negatively. In other words, ST1 omitted "full blooded Americans" and ST5 decided to skip "melting pot" when he faced difficulties with providing the ST equivalent. Similarly, ST10 hesitated while rendering the cultural structure ("boyfriend") and then skipped it. In the same line, ST14 and ST16 omitted the cultural structures respectively: "lion's share" and "selling hot dogs". Moreover, those subjects reportedly denied having problems with rendering these elements and even they did not report the reasons for these problems.

b) Interpreting cultural terms and structures literally

The second type of inadequate renderings was due to rendering the cultural terms and structures literally, which led to providing a different ST meaning. The analysis shows that the subjects rendered the cultural terms and structures literally into the TT. In other words,

ST3 rendered (“immigrants feel at home”) literally into المهاجرون يشعرون في المنزل when this subject did not use the common word order in the TT. In the same line, ST6 and ST7 rendered the cultural structure into وثائق الدم (“blood documents”), which expresses a different ST meaning and consequently affects the TT.

According to the analysis, novices faced difficulties with interpreting English cultural items into Arabic. These difficulties were reflected in the TT in terms of omission and literal interpretation. Consequently, these difficulties seemed to affect other segments as well. Furthermore, the majority of these subjects denied having problems when rendering the cultural terms and structures. However, some of them reportedly related that to the unavailability of equivalents, recalling issues, and time constraints.

5.2.1.5.3 Strategies Applied During the Interpretation of Culture Specific Terms and Structures

The analysis reflects that the novices mainly resorted to omission when they faced difficulties during the SI task. It is clear that the subjects omitted approximately 33% of the Rich Points that referred to cultural terms and structures, which has a negative impact on the TT. Novices resorted to word-for-word renderings which may express meaningless structures and consequently affect the TT. Moreover, reproducing the ST expression and structure in the TT was identified during the analysis of novices’ renderings, which may be a positive choice when it is understood by the audience. On the contrary, it may have a negative impact if the cultural word or structure already has a TT equivalent and the audience has no background knowledge of it.

The following examples were reportedly identified as strategic behaviour that was applied by the subjects. The rendering of “bloody documents” was followed literally by two subjects, which reflected a different ST meaning. Indeed, ST6 and ST7 provided a literal rendering for the ST structure when they produced وثائق الدم (“blood documents”), which does not have meaning in the TT. All examples of novices’ use of strategies can be seen in **Appendix 38**. Moreover, these novices stated:

ST6: I hesitated during interpreting “bloody documents” because I don’t know what does blood refer to. Therefore, I interpreted it literally.

ST7: I did not know why it is used here.

On the other hand, one of the objective strategies that the novices applied during rendering these elements was inferencing. The analysis of “the lion’s share” reflects that ST6, ST5, and ST16 produced the implicit meaning of the ST cultural structure when they respectively produced: المركز الاول (“number one”), النصيب الاكبر (“largest share”), and المنصب الاكبر (“largest portion”). Besides, these subjects confirmed having difficulties with rendering this structure and reflected the use of this strategy through the following reports:

ST5: I caught the meaning of this term and interpreted it.

ST6: I thought when I interpreted this phrase as literal rendering doesn’t fit with the subject.

ST16: I could not hear it well, but I think I made the right decision.

According to the analysis, the novices applied more negative strategies that have a negative impact on the TT when they faced difficulties with rendering the SL cultural terms and structures. On the contrary, with few examples, the strategies of inferencing and literal translation have been detected when the former identified the implicit meaning of the cultural elements while the latter rendered the cultural elements literally, which affected negatively on the TT. Moreover, some of the subjects reportedly confirmed having problems and they mainly related them to comprehension issues.

5.2.1.6 Analysis of Rendering the Terms and Structures with Religious Content

The analysis reflects that the novices faced difficulties with rendering the religious terms and structures, as half of these were rendered inappropriately. All the tables of analysis can be found in **Appendix 42**. The majority of novices successfully rendered “denounced as a sin”, while others produced incomplete renderings that required some improvements. The analysis shows that 8 subjects provided ST religious equivalents. Five of them interpreted it into خطيئة (“sin”), and ST4 , ST13, and ST14 produced other religious equivalents which

have the same ST meaning, respectively: اعتبروها, على انها ذنب مقرف (“it was a loathly sin”), اعتبروها كبيرة (“considered a major sin”), اعتبروها اثم (“considered it a sin”), in addition to the interpretation of ST12 which also expressed the implicit meaning of the ST اعتبروها ظالمة (“was considered oppressive”). Therefore, these renderings were ticked as “Adequate”.

Besides, 7 renderings were considered incomplete and required several changes, as many of those subjects interpreted it into قرار خاطئ (“wrong decision”), which was close to the ST meaning but did not reflect the religious sense of the ST expression. Hence, these renderings were ticked as “Improvable”. Moreover, there were hesitations in the renderings of ST2 and ST9 which reflect the difficulties they experienced during the rendering of this structure. Furthermore, only one interpretation was detected as “Inadequate” when ST11 resorted to omitting this expression.

The analysis of rendering “seems like heaven” shows that the subjects successfully rendered this expression, as they conveyed the meaning in the TT. Indeed, 11 subjects managed to render this expression into the TT: 9 of them provided an ST equivalent, الجنة (“paradise”), in addition to the interpretations of ST5 and ST9, which conveyed the meaning of the ST expression “a place that anyone wishes to live in” when they respectively produced وهي تبدو كالنعيم (“It seems like paradise”) and يعتبرونها كالحلم (“It is considered a dream”). In contrast, 6 novices resorted to omitting this expression in the TT, which were treated as “Inadequate”. The subjects faced difficulties with rendering “with the patience of a saint”, as the majority of the subjects resorted to omitting this structure from the TT.

It is clear that 14 novices deleted this structure from their renderings. Most of them reportedly related that to difficulties with recalling its equivalent. Hence, these renderings were considered “Inadequate”. In contrast, one rendering was ticked as “Adequate” when ST2 produced the ST equivalent, as he rendered this structure into يعملون بصبر كما يعمل القديسين (“They work with patience as saints”). Moreover, ST2 and ST3 provided incomplete renderings when they did not reflect the religious sense of the ST expression. However, they were close to the original meaning, which made them be ticked as “Improvable”, respectively: وهم يعملون بالاخلاص (“They work faithfully”) and عملوا عملا جادا وبصبر قوي (“They worked seriously with patience”).

The novices had difficulties with rendering “bishop”, as the subjects have to either omitting this expression or providing an incomplete ST meaning. The analysis shows that 10 interpretations were ticked as “Inadequate” since 7 of those novices resorted to omitting this expression, and another 3 subjects reproduced it in the TT when ST2, ST3, and ST4 produced “beeshoop”. Besides, 7 renderings were considered incomplete, as they used a general term instead of the precise equivalent when 5 novices provided احدا (“someone said...”), ST6 صديق (“a friend”), and ST1 and ST5 used religious expressions but imprecise equivalents, respectively, قديس (“saint”) and كاهن (“priest”). Therefore, these renderings were considered “Improvable” since they were close to the meaning of the ST expression but they required some improvements.

The majority of novices were able to successfully render the following religious extract appropriately. Indeed, 9 renderings were considered “Adequate” since ST1, ST4, ST5 and ST6 provided ST equivalents. Other subjects such as ST2, ST3, ST7, ST13, and ST17 conveyed the implicit meaning of the ST when they produced the gist of this religious extract. Besides, 3 novices provided incomplete renderings as ST10 produced كونوا اقوياء ... وشجعان اه اه اه ... (“Be strong and brave ah ah ah”), which was characterised by hesitations and pauses. ST12 and ST14 provided, respectively, فلتكن قلوبكم قوية (“let your hearts be strong”), and تشجع وانتظر الرب (“get the encouragement and wait for the Lord”), which were very brief. Therefore, these renderings were ticked as “Improvable”. Furthermore, 5 novices resorted to omitting this extract in the TT, which were ticked as “Inadequate”.

As for “serving in the churches during Sunday mass”, most of the novices successfully rendered this structure into the TT. As we see, 11 novices grasped the meaning of this structure and reflected it in the TT, as 9 of them produced يخدمون الكنائس ايام الاحد (“serve the churches on Sundays”), taking into account on Sundays there is mass prayer in the churches, which reflected the meaning of the ST. Similarly, ST2 and ST16 interpreted it respectively into يقصدون الكنائس في الاحد (“They head to churches on Sunday”) and يحضرون الكنائس (“They attend the churches”) which also close to the ST meaning. Therefore, these renderings were ticked as “Adequate” as long as the ST meaning is relatively preserved. In contrast, 6 novices resorted to omitting this structure from the TT. Hence, they were considered “Inadequate”.

The analysis of “The land of milk and honey” shows that the novices faced difficulties with rendering this structure, as most of them resorted to omission. It is clear that 10 renderings were ticked as “Inadequate” when these novices deleted this structure. On the other hand, 6 interpretations were ticked as “Adequate”, as they conveyed ST equivalent appropriately. The interpretation of ST5 which was identified as “Improvable” since this subject provided an incomplete rendering when he changed “milk” into “yogurt”: ارض اللبن والعسل (“Land of yogurt and honey”).

5.2.1.6.1 Analysis of Novices’ Reports Regarding the Interpretation of Terms and Structures with Religious Content

The analysis of novices’ reports reflects comprehending the ST terms and structures with religious content, particularly understanding the meaning of these elements, difficulties with hearing, and finding the precise equivalents are regarded as the main causes of problems, as they account for 73% of the total reports. Moreover, monitoring the interpretation was also among the main reasons of the problems that were reported by the subjects, as 23% of the total reports are related to emotive self-evaluation of TT rendering, accuracy in translation, and verification of interpretation in relation to SL rules. Novices’ reports regarding the problems encountered during the interpretation of terms and structures with religious content can be found in **Appendix 35**. In contrast, the subjects reportedly related the problems to the difficulties of translation, particularly in finding the accurate rendition, and the simultaneity of the task due to high SL input as compared with TL output, which registered 2% of the total reports. Below are examples of novices’ reports regarding the causes of the problems with rendering terms and structures with religious content.

S.	Novices’ Reports
ST5	I did not know the meaning of some religious expressions like sin, Sunday mass, bishop
ST8	I passed some of the religious terms because I did not know their accurate meanings
ST12	I was busy with processing other items when I had to interpret religious words
ST16	I had problems with comprehending the religious expressions during the interpreting task
ST17	I could not render many the religious words because I did not understand them

Table 51: Novices’ reports regarding the interpretation of English terms and structures with religious content into Arabic.

Category	Subject	Adequate	Improvable	Inadequate
Terms and structures with religious content	ST1	4	1	2
	ST2	4	2	1
	ST3	3	1	3
	ST4	4		3
	ST5	4	2	1
	ST6	2	2	3
	ST7	5		2
	ST8	2	1	4
	ST9	2	1	4
	ST10	3	2	2
	ST11			7
	ST12	3	2	2
	ST13	4		3
	ST14	3	3	1
	ST15		1	6
	ST16	2	1	4
	ST17	2	2	3
Total		47	21	51
Ratio		39.5%	17.5%	43%

Table 52: Total analysis of the novices' renderings for the English terms and structures with religious content into Arabic.

The analysis illustrates that most Rich Points with religious content were inappropriately interpreted, as the percentage of inadequate renderings was 43% of the total renderings. This may reflect that rendering these elements is considered one of the problematic aspects for the novices during the SI task. In contrast, 39.5% of the renderings were adequate, where the novices successfully conveyed the meaning of the ST religious terms. Besides, 17.5% were incomplete renderings that required some improvements to be adequate.

5.2.1.6.2 Nature of Inadequate Renderings of Terms and Structures with Religious Content

The analysis explains that the novices faced difficulties with interpreting religious terms and structures, as the results show that less than half of these elements were inadequately rendered. Moreover, omission represents 35% of the total number of inadequate renderings, which was considered the main negative behaviour that novices showed during the interpretation of these elements. This omission, thus, has a negative impact on the neighbouring segments as well. All the examples of the nature of novices' inadequate renderings can be found in **Appendix 36**.

The analysis shows that the novices resorted to omitting the Rich Points that referred to terms and structures with religious content, which has not only affected these elements but the neighbouring segments as well. The analysis reflects that ST1 struggled during the rendering and then paused, which led to the omission of “the churches during Sunday mass”. ST6 faced difficulties with rendering the religious structure “the land of milk and honey”, which led to the omission not only of the religious structure but other segments as well. Similarly, ST9 hesitated when rendering the religious structure in “the patience of a saint”, and then omitted it from the TT. Moreover, ST13 could not render the religious expression “bishop” as he then omitted it. In the same line, ST16 struggled and then skipped the whole religious structure in “words of a bishop, telling several friends who were immigrants: “Be strong, and let your heart take courage, all you who wait for the LORD!”.

5.2.1.6.3 Strategies Applied During the Rendering of Terms and Structures with Religious Content

As indicated earlier, novices faced difficulties with rendering the religious terms and structures, which were among the main problematic elements in the SI task. These difficulties led the novices to mainly resort to omission. On the other hand, the novices applied the strategy of generalisation when they reportedly confirmed using this strategy to overcome the difficulties of rendering the religious expression “bishop”. Indeed, these four subjects produced a general equivalent to render this expression when they provided قال احد (“someone said”). Moreover, these subjects reported:

ST10: I did not hear it well. Therefore, I said ‘someone’.

ST12: Some of the words were completely unclear for me. I guess this word was one of them. I think I rendered it correctly.

ST14: I said ‘someone’.

ST17: I delivered a general term.

According to the analysis, the novices faced difficulties with rendering terms and structures with religious content, which led them to make mistakes that were mainly identified in terms of omission. Besides, the strategy of inferencing was used by several novices while rendering one of the Rich Points that refers to the religious expression. Furthermore, novices reportedly related these problems to the inability to provide the ST equivalents and to other comprehension issues.

Category	Adequate	Improvable	Inadequate
Proper nouns	104	6	60
Numbers	73	9	71
Passive voice	84	6	46
Collocations	69	29	38
Culture specific terms and structures	70	15	51
Terms and Structures with religious content	47	21	51
Total	447	86	317
Ratio	52.5%	10%	37.5%

Table 53: novices’ renderings of the six categories during the SI task from English into Arabic.

It is clear that novices rendered more than half of the Rich Points adequately, which represented 52.5% of the renderings. Besides, those incomplete renderings that required slight changes were 10% of the total interpretations. In contrast, the percentage of the inappropriate renderings was 37.5%, where the novices mainly resorted to omitting the Rich Points from the TT.

5.2.1.7 Results of Novices' Reports Regarding the Problems Encountered During the SI Task from English into Arabic

Although the novices have not reported having problems with all the inadequate renderings of the Rich Points, their post-interpreting reports have been analysed and show the following:

1. The analysis of novices' post-interpreting reports (questionnaire and post interpreting questions, see Chapter three: Methodology) explains that the novices could not precisely express the reasons behind the problems of rendering most of the Rich Points. Hence, most of the subjects answered the question with "No problem", while the analysis of their interpreting recordings showed the opposite.
2. Novices related most of the interpreting problems to comprehension issues, particularly hearing the English proper names and numbers appropriately, understanding the English passive voice and collocations adequately, and perceiving the cultural terms and structures and terms and structures with religious content properly. Moreover, reports that relate the problem to comprehension aspects represent 60% of the total novices' reports. In contrast, the analysis shows that problems due to interpreting (i.e. problems in accessing a (number of) TL rendition for a SL segment, problems in selecting a contextually appropriate equivalent among a number of retrieved variants) were the less problematic aspects during this SI task, as they represented 3% of the total reports.
3. The analysis of novices' reports reflects that the novices mainly related the problems of conveying the English numbers into Arabic to the simultaneity of the task, particularly problems created by high SL input relative to interpreter's individual output rate, as these reports represented 45% of the total reports regarding the rendering of numbers. Furthermore, novices reported having problems with most of the categories, but they did not provide the causes of these problems, which were ticked as unanalysed problems.
4. Rendering cultural elements (cultural terms and structures, terms and structures with religious content) were the main problematic aspects for novices during the SI task from English into Arabic, as these reports represent 44% of the total reports. In

contrast, the analysis explains that the novices reportedly considered rendering collocations as the less problematic element for them, as they reported fewer problems with rendering collocations than other elements.

5.2.1.8 Results of Analysing Novices' Renderings for the Rich Points during the English into Arabic Task

The analysis of novices' renderings for the Rich Points explains the following aspects:

1. The novices encountered problems with rendering all six categories that were designed for this study, as the percentage of inadequate renderings was 37.5% for all the lexical, syntactic, and cultural elements investigated in this study. On the other hand, the percentage of appropriate renderings for all the categories was 52.5%, in addition to 10% that were incomplete renderings which required some improvements. However, interpreting numbers was deemed as the main problematic element for the novices, as the percentage of the problems with this category reached 46% of the total segments, while the interpretation of collocations was considered the less problematic element, as the percentage of inadequate renderings was 28%.
2. The novices lack the experience of applying the necessary strategies to overcome or prevent the problems during the SI task. In other words, no clear strategic behaviour that was applied by the novices to avoid committing the mistakes. Moreover, omitting the Rich Points was the main solution adopted by the novices that was detected to overcome the interpreting problems, which consequently has negative impact on the TT.
3. Many novices did not report having problems with most of the Rich Points, which reflects their unawareness of these problems and consequently prevents them from applying the necessary strategies to solve these problems and keep the communication between the speaker and the audience flowing. Evidence of that is the few numbers of strategies applied by the novices to solve the interpreting problems.

4. The novices reportedly confirmed having stress and unrest during the SI task, particularly during rendering the Rich Points. These features had a negative reflection on the novices which led them to provide inadequate renderings such as omitting the Rich Points, conveying different equivalents, and rendering the Rich Points literally. The novices faced difficulties with interpreting English proper names which reached to 34% of the total segments though all these names were familiar names. Novices' main solution was omitting the names from the TT which had a negative impact on the TT. Moreover, the novices reportedly related these difficulties to the complexity of the task that affected rendering the names properly.
5. The novices faced difficulties with rendering English number segments into Arabic, as 46% of the total number of these segments were inadequately interpreted into Arabic. It was clear that the novices encountered problems with interpreting numbers, which led them to commit mistakes that were identified in terms of omission and inappropriate renderings. Moreover, novices reportedly related these difficulties to the difficult nature of numbers that affects transferring them adequately.
6. The novices rendered half of the Rich Points that referred to passive voice adequately, as they mainly reflected the meaning in the TT. However, in many cases, they did not preserve the common Arabic word order that starts with a verb. In contrast, 36% of the passive structures were inadequately rendered. Moreover, omitting the passive voice was the main solution that the novices adopted when they encountered problems. In the same line, novices reportedly related these problems to comprehension, recalling, and the speech delivery rate that affected their performance.
7. The novices have successfully managed to render the majority of collocations. However, incomplete and inappropriate renderings of these elements have been detected when they resorted to literal translation and to omission. No strategic behaviour has been identified in the novices' renderings of collocations. Furthermore, several novices reportedly related these problems to recalling issues and to difficulties of providing equivalents.

8. During the interpretation of the cultural terms and structures, mistakes were identified in terms of omission and literal translation. Indeed, the majority of inadequate renderings were due to omitting these elements in the TT, which affected the TT negatively. Similarly, literal translation has also affected the TT, as rendering cultural expressions literally will produce meaningless interpretations as each language has its own cultural genre. Moreover, the strategy of inferencing was applied by few novices, which helped them to express the implicit meaning of cultural structures.
9. Interpreting structures with religious content is considered the main problematic element that novices encountered during the SI task. Obviously, novices could not rely on the context to convey the meaning or provide religious equivalents, but they mainly resorted to omitting these elements in the TT. Furthermore, most of the novices reportedly denied having these problems or committing these mistakes, which reflects their unawareness in dealing with these elements.
10. Hesitations and pauses were identified during the novices' renderings of all six categories, particularly when the novices' resort to omitting the Rich Points. In other words, these marks normally refer to the cognitive difficulties that the novices experience during rendering the Rich Points.
11. The effects of the problems encountered by the novices were not limited to the Rich Points, but they extended to the neighbouring segments as well. It occurred when novices resorted to omitting the Rich Points, which affected other elements within the sentence and consequently had a negative impact on the TT and on the novices' performance.

5.2.2 Analysis of Novices' Renderings During the Arabic into English SI Task

As in the English into Arabic task, a product analysis will be carried out on the interpretations of novices. This analysis will include measuring the subjects' renderings of the six categories that were represented by the Rich Points. In this task, novices render from Arabic (native language) into English (foreign language), which may affect the quality of their interpretations.

5.2.2.1 Analysis of Rendering Proper Names

The analysis shows that the majority of names were rendered adequately. It could be due to the impact of directionality of interpreting that made novices recall the names during the SI task. All the analysis tables of novices' renderings for the Arabic names into English can be found in **Appendix 43**.

The novices did not have problems with rendering "Ilyas Yousif", as most of them transferred this name appropriately into the TT. Indeed, 11 renderings were considered "Adequate" since these subjects transferred this name into the TT adequately. Besides, 6 interpretations were ticked as "Improvable" because ST3 and ST16 skipped the second part of the name and they only produced "Ilyas", ST11, ST13 and ST15 provided "Idyas", rather than "Ilyas", and ST9 hesitated when providing this name: "Ilyas Al You AlYousif". However, no inadequate renderings have been detected during the analysis. Similarly, most of the novices were able to transfer "Mexico" into the TT appropriately. The analysis shows that most of the novices were able to convey this name into the TT appropriately. Therefore, 16 renderings were ticked as "Adequate". On the contrary, only ST11 resorted to omitting this name from the TT. Hence, this interpretation was considered "Inadequate".

Different renderings have been detected for the name فاطمة بنت محمد الفهري ("Fatima bint Mohammed Alfehry"). The analysis shows that 9 novices successfully conveyed this name into the TT. The renderings of ST15 and ST17 were considered adequate because these subjects skipped the middle name but produced the first and the surname, which was an adequate rendering according to SL and TL norms. Therefore, all these renderings were ticked as "Adequate". Aside from that, 6 renderings were ticked as "Improvable" since they produced incomplete renderings.

ST1 rendered بنت ("bint") into "daughter", which was an inaccurate rendering as names should not be translated but transferred into the TT. Others such as ST7 and ST16 skipped part of the name, as they only produced "Fatima". Similarly, ST4, ST13, and ST17 produced, respectively, "Mohammed Alfehry", "Fatima Bint Mohammed", and "Fatima Alfehry". Thus, the rendering of ST13 was characterised by hesitation, which reflects the difficulties that this subject faced while rendering this name. Moreover, ST10 used a general

equivalent for the name “Arabic woman”. In contrast, 3 renderings were ticked as “Inadequate”, as ST8 and ST10 resorted to omission, while ST11 reflected a different name: “Ruqqaya bint Mohammed”.

The analysis of ميري كوري (“Marie Curie”) reflects that most of the subjects successfully transferred this name appropriately. The analysis shows 13 renderings successfully conveyed this name. Therefore, they were considered “Adequate”. Besides, 3 renderings were ticked as “Improvable” since the interpretations of ST7, ST13, and ST16 skipped the rest of the name and only kept the first name. Hence, these renderings were ticked as “Improvable”, while only one rendering was considered “Inadequate” when ST11 resorted to omission.

The majority of novices objectively managed to transfer توكل كيرمان (“Tawakul Karman”) appropriately into the TT. The analysis shows that 10 renderings transferred this name into the TT appropriately. Hence, these renderings were ticked as “Adequate”. Besides, 3 renderings were incomplete, as ST2 and ST15 misinterpreted part of the name and produced respectively “Doghel Kerman” and “Tawakel Omran”, while ST16 skipped the second part of the name and only produced “Kerman”. Therefore, these renderings were detected as “Improvable”. In contrast, 4 renderings were ticked as “Inadequate” when ST6 misinterpreted this name, as this subject provided “Tuka”, while ST7, ST8, and ST11 resorted to omission.

The analysis of زها حديد (“Zaha Hadid”) shows that the novices transferred this name appropriately. Thirteen novices positively managed to convey this name into the TT, which made them to be considered “Adequate”. Besides, the interpretation of ST4 was ticked as “Improvable”, since this subject provided only part of the name: “Zaha”. In contrast, 3 interpretations were treated as “Inadequate”, since ST11 and ST15 resorted to omission while ST16 provided different name: “Haneen”.

Similarly, the novices did not have problems with rendering مارغريت تاتشر (“Margaret Thatcher”), as most of them transferred this name appropriately. Indeed, 10 renderings were

ticked as “Adequate” since they conveyed the name correctly. Besides, the interpretation of ST9 was identified as “Improvable” because this subject hesitated and then rendered part of the name: “Margaret”. Furthermore, 6 novices provided inadequate renderings when ST7, ST11, and ST15 deleted this name from the TT while ST14 and ST16 conveyed a different name, “Marie”, and ST2 produced “Angela Merkel”. Hence, these renderings were ticked as “Inadequate”.

Various renderings have been detected in the analysis of سقراط (“Socrates”), as several novices could not convey this name accurately in the TT. The analysis shows that 10 novices successfully transferred this name into the TT. Therefore, these renderings were ticked as “Adequate”. Besides, 4 renderings were identified as “Improvable”, since ST1 and ST11 produced general expressions (“someone said”). Similarly, ST2 produced “they say”. Moreover, ST15 rendered it into “Arscrat said” which was incomplete equivalent but close to the original name. Moreover, 3 renderings were considered “Inadequate” because these novices resorted to omission.

The analysis of اليزابيث بلاكويل (“Elizabeth Blackwell”) reveals that the novices faced challenges with transferring this name, as the majority of the subjects produced inadequate renderings. It is clear that 7 novices failed to convey this name into the TT appropriately, as 6 subjects resorted to omission while ST14 produced a different name: “Liza”. Hence, these renderings were ticked as “Inadequate”. In contrast, ST2, ST4, ST5, and ST12 managed to convey this name appropriately. Therefore, these renderings were ticked as “Adequate”. Besides, 6 subjects interpreted only part of the name, as ST6 and ST9 rendered only part of the name appropriately while they incorrectly rendered the other part as they respectively produced “Elizabeth Walkwold” and “Liza Blackwell”. Moreover, ST7 and ST17 skipped the second part of the name and rendered only “Elizabeth” while ST8 and ST16 skipped the first part of the name and produced “Blackwell”. Hence, these renderings were ticked as “Improvable”.

About half of the novices resorted to omitting the name افريقيا (“Africa”) from the TT. The analysis explains that 9 novices successfully transferred this name into the TT, which means they are considered “Adequate”. Furthermore, 8 novices resorted to omitting this name from

the TT. These novices did not report having difficulties with rendering this name nor did they state the reasons for omission. Hence, these renderings were ticked as “Inadequate”.

The analysis of بريطانيا (“Britain”) reflects that the majority of novices omitted this name in the TT. Indeed, 6 renderings were ticked as “Adequate” when these subjects transferred this name into the TT appropriately. On the contrary, 11 renderings were considered “Inadequate” since these subjects omitted this name in the TT. Moreover, novices reportedly were unaware of deleting the name from their renderings, as they did not report facing difficulties with rendering this name.

5.2.2.1.1 Analysis of Novices’ Reports Regarding the Interpretation of Proper Names

The analysis of novices’ reports regarding the causes of inadequate renderings for the names reflects that the subjects considered that comprehension issues, particularly difficulties with hearing the SL names, were the main causing of the failure in providing adequate TT names. Indeed, approximately 64% of the novices considered that the difficulties with hearing the SL names was the main reason behind their inappropriate renderings of the SL names. Moreover, 19% of the reports related the problems to the simultaneity of the task that affected their ability to convey the names adequately. In the same line, 12% of the total reports refer to monitoring issues, particularly those related to mood (emotive self-evaluation of performance). Furthermore, another report (2% of the total reports) considered that the difficulties with selecting the appropriate equivalent for the SL name was the main reason behind providing an inappropriate TT name. Novices’ reports regarding the problems encountered during the interpretation of names can be found in **Appendix 44**.

Below are some of the novices’ post-interpreting reports regarding the problems of conveying SL names into the TT, which were mainly related to comprehension issues.

S.	Novices' Reports	Back Translation
ST6	واجهت صعوبات في بعض الاسماء مثل توكل كرمان في الحقيقة سمعتها نقه ونسيت الاسم الثاني	I faced difficulties with some names such as Tawakkul Karman as I heard it "Tuka" and could not recall the name
ST10	واجهت مشاكل في سماع الاسماء فقمت بترجمتها الى مصطلح عام مثل "فاطمة بنت محمد الفهري" ذكرت امراة عربية فقط	I encountered problems with listening the names properly. Therefore, I provided general names as in "Fatima bint Mohammed Alfehry" I interpreted it into Arabic woman.
ST11	لم اركز على الاسماء اثناء الترجمة فلم اتمكن من ترجمتها	I could not focus on the names, therefore; I could not interpret them
ST12	بعض الاسماء كانت صعبة ولم اسمعها جيدا مثل اليزابيث بلاك ويل	Some names were difficult and I could not hear them well such as "Elizabeth Blackwell".
ST13	ذكرت الاسم الاول فقط حتى لا اضيع كامل الاسم	I interpreted the first name only in order not to lose the whole name.

Table 54: Novices' reports regarding the rendering of Arabic proper names into English.

Category	Subject	Adequate	Improvable	Inadequate
Proper names	ST1	6	2	3
	ST2	7	2	2
	ST3	9	1	1
	ST4	9	2	
	ST5	10		1
	ST6	8	2	1
	ST7	5	3	3
	ST8	6	1	4
	ST9	7	3	1
	ST10	6		5
	ST11		2	9
	ST12	10		1
	ST13	6	3	2
	ST14	9		2
	ST15	3	3	5
	ST16	1	5	5
	ST17	9		2
Total		111	29	47

Ratio		59%	15.5%	25.5%
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Table 55: Total analysis of novices' renderings for the Arabic proper names into English.

As it is clear in the analysis that the novices managed to interpret most names into the TT, as the ratio of adequate renderings was 59%. Besides, 15.5% of those renderings were incomplete, particularly when novices skipped part of the name and used a general equivalent. In contrast, 25.5% of the Rich Points that refer to names were rendered inappropriately. Moreover, novices reportedly related these mistakes to comprehension issues.

5.2.1.2 Nature of Inadequate Renderings of Proper Names

As explained in the analysis, most proper names were adequately rendered into English. However, novices encountered problems with rendering the names, which led them to make mistakes and consequently provide inadequate renderings. All the examples that reflect the nature of novices' inadequate renderings can be found in **Appendix 45**. The analysis shows that these problems were due to omitting the SL names and skipping part of the them.

a) Omitting the proper name

The analysis indicated that omitting the Rich Points that refer to the names was the main cause of inadequate renderings that the novices made during the SI task. As we have seen, 21% of the total names were omitted in the TT, which were mainly due to comprehension issues as reported in the post-interpreting reflections. It is clear that ST8 omitted the ST name (افريقيا "Africa") from the TT when he reportedly could not recall this name during the SI task. Similarly, ST10 hesitated and paused while rendering the name (اليزابيث بلاكويل "Elizabeth Blackwell"), then skipped it. In the same line, ST15 resorted to omission when this subject could not render the name (زها حديد "Zaha Hadid").

b) Skipping part of the proper names

In several examples, the novices resorted to transferring only one part of the name, particularly when a rich point consisted of more than one segment. Below are examples of skipping part of the name. The analysis shows that the novices skipped part of the proper names during the interpreting process as ST3 only produced “Illyas” and ST7 skipped two segments of the name and only provided the first name “Fatima”. Similarly, ST13 rendered the first name “Marie” and skipped the second one, while ST16 skipped the first name but conveyed the second name “Karman”. Furthermore, ST9 produced “Margaret” and skipped the second name. Moreover, some of these novices reportedly related these renderings to hearing issues.

c) Effects of inadequate renderings on other segments

The analysis shows that the mistakes made by novices during rendering the names have extended to the neighbouring segments within the sentence. The analysis shows that ST15 faced difficulties with interpreting “Margaret Thatcher” and “Socrates” when he could not transfer these names appropriately. Consequently, this subject extended the problem to the next segments as well. On the other hand, ST13 hesitated when rendering the SL name “Fatima bint Mohammed Alfihry”, which consequently affected the next segments. Similarly, ST11 hesitated during the rendering of “Marie Curie” and “Tawakel Kerman” and then resorted to omitting these names and the next segments in the TT as well.

5.2.2.1.2 Strategies Applied During of Rendering Proper Names

The analysis shows that the novices, in several examples, applied the strategies of generalisation and skipping to overcome the problems of rendering the SL names. All the examples of novices’ use of strategies can be found in **Appendix 46**. The analysis shows that ST10 used the strategy of generalisation to overcome the problems of transferring فاطمة بنت محمد الفهري (“Fatima bunt Mohammed Alfehry”) into the TT, as he produced the general structure “Arab woman” instead of the name. Moreover, this subject reportedly stated that “I could not hear the name. Therefore, I said Arabic woman”. On the contrary, three subjects applied the strategy of skipping, as ST13 skipped the surname and only produced the first and second names “Fatima bint Mohammed”, ST16 provided only the first name “Fatima”,

and ST17 rendered the first name and the surname only, “Fatima Alfehry”. Furthermore, those subjects confirmed having problems with recalling the full name, which made them skip part of them.

Similarly, two subjects applied the strategy of skipping when rendering ميري كوري “Marie Curie”. Clearly, ST13 and ST16 skipped the second name and only produced “Marie”. Moreover, they reportedly confirmed applying the strategy of skipping, which was due to the difficulties of hearing the complete name. Moreover, two other subjects applied the strategy of generalisation when they rendered سقراط “Socrates”. Indeed, ST1 and ST11 used a general structure as an equivalent for the ST name, as they produced “someone said”. Furthermore, they reportedly confirmed having problems with recalling the full name, which made them resort to producing this structure.

According to the analysis, novices managed to interpret half of the Rich Points that refer to proper names. However, there were problems with interpreting these segments, which led the novices to mainly turn to omission and also skip part of the names, which has affected the neighbouring segments as well. Few subjects, thus, reportedly confirmed the problems with rendering these elements, which were due to comprehension issues that made them use general structures and also skip part of the names. As in the English into Arabic task, novices lacked the experience to use the required strategies to cope with the problems of rendering the names.

5.2.2.2 Analysis of Rendering Numbers

The measuring analysis shows that the novices did not deal with rendering the ST numbers appropriately. Furthermore, the subjects encountered problems with transferring the SL numbers into the TT, which has a negative impact on the TT. All the tables of analysing Novices’ renderings of numbers can be seen in **Appendix 47**. The analysis of “1975” indicates that the majority of the novices provided an inappropriate rendering for this number. This analysis shows that 9 novices failed to transfer this number adequately, as 8 of them conveyed a different ST segment while ST11 resorted to omitting this segment in

the TT. Hence, these renderings were ticked as “Inadequate”. In contrast, 8 novices managed to reflect this segment in the TT appropriately. Therefore, they were ticked as “Adequate”.

Similarly, novices encountered problems with rendering سبعينيات القرن الماضي (“seventies of the last century”), as about half of the renderings were considered “Inadequate”. Indeed, most of the subjects were able to convey this number into the TT, which resulted in 10 interpretations being ticked as “Adequate”. In contrast, 7 renderings were considered “Inadequate” since 6 subjects produced a different TT number, in addition to ST16, who resorted to omission. The analysis of rendering the SL number “49%” shows that the majority of the subjects succeeded to transfer this number into the TT. Clearly, 6 subjects provided inappropriate renderings, as ST1, ST2, and ST13 produced the opposite number, 94%, while ST9, ST10, and ST11 resorted to omission. Therefore, these renderings were ticked as “Inadequate”. On the other hand, 11 subjects successfully conveyed this number in the TT, which were consequently considered “Adequate”.

The analysis of “877” indicates that the majority of the novices rendered this number inappropriately. Indeed, 10 renderings were ticked as “Inadequate” when 8 of these subjects conveyed a different ST number, in addition to ST7 and ST9, who resorted to omission. On the contrary, 7 renderings were considered “Adequate” when these subjects provided the ST equivalent appropriately. The analysis of “2010” explains that the majority of novices successfully transferred this number into the TT. The analysis explains that 12 subjects successfully transferred this number into the TT. Therefore, these renderings were ticked as “Adequate”. In contrast, 5 subjects resorted to omitting this number in the TT. Hence, they were ticked as “Inadequate”. In the same line, about half of the subjects encountered problems with rendering “2014” into the TT. The analysis indicates that 8 renderings were considered “Inadequate” when 7 subjects resorted to omitting this segment in the TT, while ST12 provided a different SL number, “2040”, in the TT. However, 9 renderings were ticked as “Adequate” when these subjects provided the precise SL number in the TT.

The novices encountered problems with rendering “25000” into the TT, as approximately half of the subjects provided inadequate renderings. The analysis shows that 8 novices provided incorrect renderings; ST1 and ST11 resorted to omitting this number in the TT,

while 6 subjects produced a different SL number. Therefore, all these renderings were considered “Inadequate”. Besides, the interpretation of ST9 was detected as “Improvable” since this subject produced a general expression (“a lot of women”) rather than providing the precise ST equivalent. In contrast, 8 subjects succeeded to convey this number into the TT. Hence, these renderings were ticked as “Adequate”.

Almost all of the subjects were unable to transfer “1849” into the TT adequately, as the analysis shows that they could not transfer this number into the TT appropriately. The analysis also shows that 14 renderings were ticked as “Inadequate”, since 8 of these novices resorted to omitting this number while another 6 renderings provided an incorrect TT number. On the contrary, ST3, ST5, and ST12 successfully conveyed this number into the TT. Hence, these renderings were ticked as “Adequate”. As for the analysis of rendering ثلثي (“two thirds”), the majority of the subjects produced inappropriate renderings. Indeed, 12 renderings were ticked as “Inadequate”, since they could not convey this number into the TT appropriately. Among them, 8 novices resorted to omission, in addition to 4 renderings which were considered inappropriate, as these subjects expressed a different number. On the contrary, ST2, ST3, and ST5 successfully conveyed this number into the TT, so these renderings were ticked as “Adequate”. Besides, the interpretations of ST7 and ST8 (“two parts” and “third”) were close to the ST number but were not precise equivalents. Hence, these renderings were considered “Improvable”.

5.2.2.2.1 Analysis of Novices’ Reports Regarding the Interpretation of Numbers

The analysis of subjects’ reports regarding the causes of the problems with rendering the numbers shows that the majority of the subjects did not have a clear explanation for the failure of conveying the SL numbers in the TT, as approximately 41% of the total reports are related to monitoring aspects, particularly those unanalysed problems which represented 39% of the reports. In the same line, about 31% of the total reports relate the problems to comprehension issues, particularly difficulties with hearing the SL numbers, as the main cause of these problems. Similarly, 28% of the reports consider the problems are due to the simultaneity of the task, particularly problems related to high SL input relative to interpreter’s individual output rate. Novices’ reports regarding the problems encountered during the interpretation of numbers can be found in **Appendix 44**.

Below are some of subjects' post-interpreting reports regarding the problems in the interpretation of numbers, which are mainly related to comprehension and monitoring aspects.

S.	Novices' Reports	Back Translation
ST3	الارقام كانت صعبة اثناء الترجمة فكان علي التركيز عليها بشكل جيد	Numbers were difficult during SI, therefore; I had to focus on them well
ST9	لم استطع تذكر الارقام واعتقد اني اخطات بترجمتها مثلا 1975 فقلت 1790	I could not recall the numbers and I think I interpreted it inappropriately such as 1975, I interpreted it into 1790.
ST15	لم استطع سماع الارقام بصورة جيدة	I could not hear the numbers properly
ST16	الارقام دائما تكون صعبة وسريعة النسيان	Numbers are always difficult and easily forgotten

Table 56: Novices' reports regarding the rendering of Arabic numbers into English.

Category	Subject	Adequate	Improvable	Inadequate
Numbers	ST1	5		4
	ST2	6		3
	ST3	9		
	ST4	4		5
	ST5	9		
	ST6	2		7
	ST7	5	1	3
	ST8	3	1	5
	ST9	2	1	6
	ST10	2		7
	ST11			9
	ST12	5		4
	ST13	5		4
	ST14	5		4
	ST15	1		8
	ST16	3		6
	ST17	5		4
Total		71	3	79
Ratio		46.5%	2%	51.5%

Table 57: Total analysis of novices' renderings for the Arabic numbers into English.

As we noticed that the novices faced difficulties with interpreting SL numbers into the TT, as 51.5% of the total numbers were inadequately conveyed into the TT. This could be due to novices' recourse to omitting the numbers in the TT. Besides, 2% of the numbers were incompletely conveyed, as the subjects provided general equivalents rather than the accurate ST equivalent. On the contrary, 46.5% of the total numbers were adequately transferred, as the novices successfully conveyed them into the TT.

5.2.2.2.2 Nature of Inadequate Renderings of Numbers

The analysis shows that the majority of the numbers were inappropriately interpreted into the TT. All the examples that reflect the nature of novices' inadequate renderings can be found in **Appendix 45**. These inadequate renderings were mainly due to a) misinterpreting these segments in the TT and b) omitting these elements in the TT.

a) Misinterpretation of SL numbers

Most of the inadequate renderings of the numbers resulted from conveying an incorrect SL number in the TT. These renderings have a negative impact on the TT and on the novices' performance. Moreover, the subjects reportedly related that to comprehension issues and to the difficult nature of numbers. The analysis indicates that ST9 provided an incorrect rendering for the ST number سبعينيات ("seventies"), as this subject produced "9070". ST10 could not render the ST number "877", as this subject produced "1878". Similarly, ST13 did not convey the appropriate ST number ("25000"), as this subject provided "250". Furthermore, ST16 failed to provide the accurate ST number ("1849"), as this subject produced "1944". Omitting the SL number in the TT.

Another source of inadequate renderings was omitting the SL numbers in the TT. The analysis shows that about 28% of the Rich Points that refer to SL numbers were deleted from the TT. However, most of the subjects did not admit in the post-interpreting reports that they were aware of the omission they made when rendering the numbers. Indeed, ST1 struggled during rendering the ST number "25000" and then skipped conveying this number in the TT. ST7 also encountered problems with rendering the SL number "877", as this subject omitted this number from the TT. Similarly, ST11 omitted the SL number "49%",

when this subject hesitated during the rendering. In the same line, ST16 struggled while rendering the SL number ثلثي (“two thirds”), which led him to delete it from the TT. Consequently, these renderings have a negative impact on the TT and on the interpreters’ performance.

5.2.2.2.3 Strategies Applied During the Rendering of Numbers

The analysis explains that the subjects encountered problems with providing the accurate ST numbers in the TT. Hence, they mainly resorted to omitting these numbers from the TT, in addition to providing inaccurate ST numbers. Moreover, no clear strategic behaviour has been identified in the analysis except the following examples when these subjects confirmed the problems and then resorted to applying the strategies of generalisation and approximation to solve them. All the examples of novices’ use of strategies can be found in **Appendix 46**. Indeed, ST9 applied the strategy of generalisation when he rendered “25000” into the general structure “a lot of women”. This subject reportedly confirmed having problems with recalling the ST number which led him to use the general structure. In the same line, ST7 used the strategy of approximation when he rendered ثلثي (“two thirds”) into “two parts”. Furthermore, this subject reportedly confirmed having problems with rendering this number, but he thinks that he solved the problem by providing a close equivalent.

5.2.2.3 Analysis of rendering Passive Voice

The analysis reflects that the novices successfully conveyed the meaning of the passive structures into TT. All the tables of analysing Novices’ renderings of passive voice can be seen in **Appendix 48**. The analysis of, *بدات المطالبات بحقوق المرأة تتزايد من قبل المنظمات الدولية*, (“Demands have been increased by the international organization”), shows that the majority of novices successfully rendered the passive voice into the TT as they mainly preserved the meaning of the ST structure. The analysis also shows that 11 novices positively conveyed the meaning of the ST structure into the TT. However, most of these subjects provided an ST meaning by rendering this structure into the TT active voice, except the rendering of ST17, which provided the TT passive voice “The demands of women rights has been increased”. Several renderings contained syntactic mistakes, such as the renderings of ST1

(“The claims of woman rights begins”), ST9 (“Women’s rights has started”), ST13 (“women rights begin to increasingly emerged”), ST15 (“The rights of women increasing by...”), and ST17 (“demands of women rights has been increased”). However, they preserved the meaning of the ST structure. Therefore, all these renderings were ticked as “Adequate”.

Besides, 4 interpretations were not precise equivalents, as ST4, ST8, and ST10 replaced “woman’s rights” with “humans’ rights” and ST16 used the inaccurate verb “established”. Hence, these renderings were considered “Improvable”. On the contrary, two other interpretations were ticked as “Inadequate” when ST2 and ST11 reflected a different ST meaning, as they produced, respectively, “life demands starts growing from the world organization” and “women’s role raised and appeared in the society”. Similarly, most of the novices appropriately conveyed the meaning of عقد الاجتماع العالمي الاول عام 1975 (“the first international meeting was held in 1975”) in the TT.

The analysis explains that 13 renderings were considered “Adequate” since all these renderings preserved the meaning of the ST passive structure when 5 of those novices produced the TT passive voice “meeting was held”, while others provided a TT active voice such as the renderings of ST6 (“the first meeting held in Mexico City”), and ST15 (“The first meeting started in...”). Besides, the rendering of ST7 was incomplete, as this subject produced “the first interview was held” when this subject inappropriately rendered اجتماع (“meeting”) into “interview”. Hence, this interpretation was regarded as “Improvable”. In contrast, 3 interpretations were ticked as “Inadequate”, since ST3 and ST10 reflected a different ST meaning as they produced, respectively, “the meeting has convinced at” and “the first meeting has been need in...”. Moreover, ST16 resorted to omitting this structure in the TT.

For the تم سن قانون القضاء على كافة اشكال العنف ضد المرأة (“A law has been enacted against all types of violence against women”), the majority of novices did not have problems with rendering this structure into the TT. The analysis explains that 14 novices managed to convey the meaning of this structure appropriately, as 5 subjects rendered it into a TT passive voice, such as the interpretations of ST5 (“A law to ... was enacted”), ST13 (“Law

... emerged”), and ST14 (“A law was made to eliminate...”). In the same line, 9 subjects rendered it into the TT active voice, such as ST3 (“They released a new law and eliminate all the violence against woman”), ST6 (“it enacted a law for forbidding the violence against the woman”), and ST16 (“There was a law to discard any violence against woman”). Hence, all these renderings were ticked as “Adequate”. On the contrary, 3 renderings were ticked as “Inadequate”, since ST2 and ST11 produced, respectively, “There was the initiation of law to finish things” and “they collect hhh call against woman”, which reflected a different ST meaning. Moreover, ST15 resorted to omitting this structure in the TT.

The analysis of *تم تأسيس اول واقدم جامعة في العالم من قبل امرأة عربية* (“The first and oldest university in the world was established by Arab woman”), as most of the novices successfully rendered this structure into the TT. The analysis explains that 13 novices were able to convey the meaning of the ST, as most of those subjects provided a TT passive voice, such as the interpretations of ST3 (“The first university in the world was founded by...”), ST6 (“the first and oldest university was established by the...”), and ST14 (“The first and oldest university was made by...”). Most of these renderings mainly included two TT passive structures: “was founded” and “was established”.

Moreover, some of these renderings required slight changes, as in the rendering of ST16 (“It has been established the oldest university by a woman”), which requires structural modification. However, the meaning is relatively preserved in these renderings. Therefore, all these renderings were considered “Adequate”. Besides, 4 renderings were incomplete as they required some improvements, such as the rendering of ST1, which includes the inaccurate verb “published”. ST2 and ST4 produced renderings that lacked a verb, “The first and oldest university in the world by the Arabian woman”, and ST14 skipped the object when he rendered it into “the first and oldest ...was made by Arabic woman”. Therefore, these renderings were ticked as “Improvable”. In contrast, no inadequate renderings have been detected during the analysis of this passive structure.

The analysis of *تم تعيينها سفيرة لمنظمة اليونسكو* (“she was appointed as an ambassador for UNESCO”) shows that the novices offered different interpretations for this passive voice. It is clear that 8 novices successfully rendered this structure into the TT; 7 of them provided

a TT passive voice while ST13 interpreted it into the active voice: “she is the ambassador in UNESCO”. Hence, these renderings were ticked as “Adequate”. Besides, the rendering of ST2 was regarded as incomplete when this subject produced “It is mentioned as ... ambassador of the UN”, as it lacked the verb. This rendering was considered “Improvable” because it required some improvements. On the contrary, 8 renderings were detected as “Inadequate” when 6 subjects reflected a different ST meaning, such as ST4 (“They hired her in cultural and educational of UNESCO”), ST6 (“and ambassador educational for UNESCO”), and ST7 (“she was member of UNESCO”). Moreover, ST5 and ST15 resorted to omitting this structure in the TT. Hence, these renderings were ticked as “Inadequate”.

The novices produced various interpretations for the ST passive voice *عدت المرأة جزءا مهما في* ... (“woman was considered as ...”). The analysis illustrates that 7 subjects interpreted this structure into a TT passive structure (“women were considered” and “women were regarded”) using either the past singular and plural forms “was considered” and “were considered”, or present singular and plural forms “is considered” and “are considered”, which could be acceptable as the novices work into their foreign language. Moreover, ST1 and ST7 rendered this passive voice into the TT active voice when they produced, respectively, “the woman was the important part in” and “the women were important part in”, which preserve the meaning of the ST passive voice. Hence, these renderings were ticked as “Adequate”.

Besides, the rendering of ST17 was considered incomplete, as this subject produced “women also considered an important part”, which missed the auxiliary verb that constitutes the passive voice. Therefore, this rendering was ticked as “Improvable”. On the contrary, 7 renderings were regarded as “Inadequate” when 6 novices resorted to omitting this structure in the TT, while ST2 provided an inappropriate rendering as he produced a meaningless structure “woman considered as hhhh various impact”.

The subjects faced difficulties with rendering the SL passive voice *تم اسناد العديد من المناصب المهمة* (“Many important positions have been awarded to women”). The analysis reflects that 7 novices managed to render this structure adequately. Among them, 6 renderings provided TT passive structures when they produced, respectively: ST1 “has been given”,

ST3 “were assigned”, ST5 “were assigned”, ST9 “were given”, ST10 “has been involved”, and ST12 “were appointed”. Moreover, ST6 interpreted the ST passive voice into the TT active voice: “many women in many great countries occupied many great jobs”. Hence, all these renderings were considered “Adequate”. Besides, 3 interpretations were regarded as incomplete, particularly when ST11, ST13, and ST15 produced, respectively: “A lot of important status for women”, “woman have a lot of positions”, and “there are many big jobs for women”. These renderings required several changes to be adequate. Therefore, they were ticked as “Improvable”. Furthermore, 7 renderings were ticked as “Inadequate” in which 5 subjects resorted to omitting this structure, while ST2 and ST4 provided unclear renderings as they produced, respectively, “they obtained a lot duty” and “On the position that woman take it in the society”.

The majority of the subjects were able to render *التي لقببت بالمرأة الحديدية* (“she was nicknamed with Iron Lady”) appropriately. The analysis shows that 8 subjects successfully provided adequate renderings for this passive structure, as 4 novices rendered it into the TT passive voice. It is clear that ST5 and ST6 produced “was called” and ST13 and ST16 rendered it respectively into “is called” and “it is known”. Other subjects interpreted the ST passive voice into the TT active voice as they referred to the subject of the sentence, which was not originally stated. These are the renderings of ST1 and ST2: “they gave her” and “they call her”. Similarly, ST4 applied “we called her”, while ST9 conveyed the meaning when he produced “also known as”. Hence, all these renderings were ticked as “Adequate”. Besides, 3 renderings were incomplete as they did not mention the auxiliary before the main verb, which affected the structure and the meaning of the passive voice. In other words, ST3, ST8, and ST14 provided, respectively: “She called the...”, “Which called the...”, and “She nicknamed as...”. These renderings were ticked as “Improvable”. In contrast, 6 interpretations were considered “Inadequate” when 5 subjects omitted this structure in the TT, in addition to the inappropriate rendering of ST11, “I can the woman iron woman”, which reflected a different ST meaning.

5.2.2.3.1 Analysis of Novices’ Reports Regarding the Interpretation of Passive Voice

According to novices’ reports, the main cognitive process that shows evidence of problems during rendering the passive voice is comprehending the ST passive voice, as 52% of the

total reports were related to perceiving the passive voice and accessing their meanings. Moreover, 41% of the reports belonged to problems with monitoring the interpretation, particularly those unanalysed problems and problems that were related to emotive self-evaluation of interpretation. Moreover, 7% of the total reports were related to problems of translation when the subjects could not access the appropriate TT equivalents for the ST passive voice. Novices' reports regarding the problems encountered during the interpretation of passive voice can be found in **Appendix 44**.

Below are some of the subjects' post-interpreting reports regarding the problems of interpreting the passive voice, which are mainly related to comprehension and monitoring.

S.	Novice's Report	Back Translation
ST3	واجهت مشكلة بترجمة بعض الافعال الخاصة بالمبني للمجهول مثل held ذكرت convicted	I had difficulties with providing equivalent verbs for the passive voice as i.e. I said convicted for held.
ST7	كنت اعاني من عدم اللحاق بالمتكلم مما اثر على ترتيب بعض جمل المبني للمجهول	I could not follow up with the speaker which affected the formation of some passive sentences
ST10	عدم توفر الوقت الكافي لاستذكار الكلمات المناسبة المستخدمة للمبني للمجهول	The unavailability of required time to recall the suitable words that were used in the passive voice
ST15	لم افهم بعض الكلمات المستخدمة في المبني للمجهول لذلك ترجمت حسب ما توقعت	I did not understand some of the passive structures, therefore; I interpreted based on my expectations
ST16	بسبب التوتر لم اتمكن من صياغة المبني للمجهول مع العلم اني كنت اتقنه	Due to stress, I could not formulate passive voice though I used to apply it appropriately

Table 58: Novice's reports regarding the interpretation of Arabic passive voice into English.

Category	Subject	Adequate	Improvable	Inadequate
	ST1	6	1	1
	ST2	4	2	2
	ST3	6	1	1
	ST4	3	2	3
	ST5	7		1
	ST6	7		1
	ST7	4	1	3

Passive voice	ST8	5	2	1
	ST9	8		
	ST10	4	1	3
	ST11	2	1	5
	ST12	7		1
	ST13	6	1	1
	ST14	4	2	2
	ST15	3	1	4
	ST16	3	1	4
	ST17	5	1	2
Total		83	17	36
Ratio		61%	12.5%	26.5%

Table 59: Total analysis of novices' renderings of passive voice from Arabic into English.

It is clear from the analysis that the novices adequately interpreted 61% of the total Rich Points that referred to the Arabic passive voice into English. Moreover, the number of those incomplete renderings that required some changes was 12.5% of the total Rich Points. In contrast, novices committed mistakes with interpreting 26.5% of the passive structures as they mainly resorted to omitting these elements in the TT.

5.2.2.3.2 Nature of Inadequate Renderings of the Passive Voice

The measuring analysis shows that the majority of Rich Points that referred to passive voice were rendered adequately, as the subjects provided accurate TT passive structures and also conveyed the meaning when they rendered the ST passive voice into TT active voice. All the examples that reflect the nature of novices' inadequate renderings can be found in **Appendix 45**. Furthermore, the percentage of inadequate renderings was 27% of the total number of passive structures as the subjects, when they faced difficulties, resorted to a) omitting the ST passive voice in the TT and b) misinterpreting the ST passive voice in the TT.

a) Omitting the passive voice

The analysis reflects that 17% of the inadequate renderings of the Rich Points that refer to passive voice were due to omitting these elements in the TT. It is clear that the novices

resorted to omitting the passive voice, which has negative effects on the meaning of the TT. It is clear that ST15 omitted the ST passive voice in Example 53 عقد الاجتماع العالمي الاول (“the first meeting was held...”) and ST7 could not render the passive voice in Example 54 تم اسناد العديد من المناصب (“Many important positions have been awarded to women”). Similarly, ST11 did not render the passive voice in Example 55 عدت المرأة جزءا مهما (“Woman was considered an important part”) and ST10 also struggled when rendering the passive structure in Example 56 التي لقبتم بالمرأة الحديدية (“Margaret Thatcher who was nicknamed with”). In the same line, ST5 omitted the passive voice in Example 57 وقد تم تعيينها سفيرة (“She was appointed as an ambassador”).

b) Misinterpreting the passive voice

The analysis of subjects' inadequate renderings explains that the subjects faced difficulties with rendering the passive voice which led them to provide inappropriate renderings. In عقد الاجتماع العالمي الاول (“The first global meeting has been held in”), ST3 expressed a different ST meaning for the ST passive voice: “The meeting has convinced at ...”. ST11 could not manage to render the passive voice in تم سن قانون القضاء “A law ... has been enacted” and التي لقبتم بالمرأة الحديدية (“Who has been called the iron woman”). This subject provided, respectively, “They call against woman” and “I can the woman iron”. Similarly, ST1 produced an inappropriate rendering for تم تعيينها سفيرة لمنظمة اليونسكو (“She has been assigned as an ambassador”) when this subject provided a meaningless TT: “That is followed the UNESCO”. In the same line, ST15 failed to render the passive structure in تم اسناد العديد من المناصب المهمة (“Many important positions have been awarded to...”), as he produced “There are many big jobs for...”.

5.2.2.3.3 *Strategies Applied During the Rendering of Passive Voice*

The analysis reflects that there was no strategic behaviour that has been clearly identified during the rendering of the ST passive voice. Moreover, the subjects did not report in their post-interpreting reflections that they used strategies to overcome the difficulties of rendering the passive structures.

According to the analysis, novices generally interpreted the majority of Arabic passive structures appropriately. In other words, they mainly provided TT passive equivalents and also, in other examples, they conveyed the ST meaning in the TT. Besides, several examples were incomplete, as the novices committed syntactic mistakes when providing the TT passive equivalents. In contrast, inadequate renderings were mainly due to omitting the passive voice in the TT and also because of the incorrect ST equivalents, which had negative effects on the meaning of the TT. Moreover, novices lacked the strategic behaviour that helps them to overcome the difficulties, as there were no strategies used to overcome the interpreting problems. Thus, several subjects related these mistakes to comprehension, speed delivery rate, and recalling issues.

5.2.2.4 Analysis of Rendering Collocations

The analysis of measuring novices' renderings for the ST collocated structures shows that novices faced difficulties with rendering these elements. Indeed, different interpretations have been detected for rendering collocations into the TT. All the tables of analysing Novices' renderings of collocations can be seen in **Appendix 49**. The analysis of rendering "اسلط الضوء" "shed the light" shows that almost all the novices provided an adequate rendering, as they were able to convey the meaning of this collocation appropriately. It is clear that the novices used various ST equivalents to refer to the ST collocation, as they applied "introduce you to", "spotlight on", "focus on", "highlight on", "shed light on", "would like to talk about", and "taking about". As long as meaning is preserved, all these renderings were ticked as "Adequate". Moreover, only the interpretation of ST1 has been considered "Inadequate", since this subject produced "shrine on", which reflected different ST meaning.

The analysis shows that the subjects faced difficulties with providing the precise ST equivalent for the collocated structure "تبذل المرأة جهودا كبيرة" ("woman exerts a lot of efforts"). In this analysis, 10 novices provided imprecise renderings but were close to the original meaning of the collocation, as ST5, ST9, ST10, ST12, ST14, and ST17 produced "make efforts". Similarly, ST1 and ST2 rendered this collocation into, respectively, "doing great efforts" and "offers a lot of efforts", while ST13 and ST16 provided "puts a lot of efforts" and "do a great effort". Hence, all these renderings were ticked as "Improvable".

Besides, 4 subjects rendered this collocation appropriately, as ST6, ST7, ST8 and ST15 provided the precise ST equivalent: “Women exert a great effort”. Therefore, they were considered “Adequate”. On the contrary, 3 interpretations were ticked as “Inadequate” since ST3, ST4, and ST11 produced inappropriate renderings, respectively: “woman gaining huge efforts”, “woman make enforce at home”, and “she has many roles”. Almost all of the subjects produced incomplete renderings for لا احب شرب الحساء في الصباح (“I do not like to have soup in the morning”), as they could not provide the precise ST equivalent. Indeed, 16 renderings were ticked as “Improvable” when 10 subjects rendered this structure into “drink soup” which is a literal translation of the ST. In the same line, ST10, ST11, ST15 and ST17 have produced “eat soup” which was also inaccurate equivalent. In contrast, ST12 has successfully provided ST equivalent “have soup”. Hence, this rendering was ticked as “Adequate”.

The analysis of السراء والضراء (“good and bad times”) reveals that the majority of the subjects positively managed to provide adequate renderings. The analysis also shows that 10 renderings were considered “Adequate”, since 6 of these renderings produced the precise ST equivalent, “in good and bad”. Moreover, 4 renderings correctly conveyed the meaning by using other alternatives as ST4 and ST12 respectively “in thick and thin”. In the same line, ST14 and ST17 provided “they stand besides every time” and “for better or for worse”. Besides, 4 interpretations were incomplete and were considered imprecise equivalents when ST1 and ST8 produced, respectively: “She stands ...in soundness and badness” and “In the upsides and the downs”. Similarly, ST9 and ST16 provided “Woman supports man” and “They stand besides every time”. Furthermore, 3 renderings were ticked as “Inadequate” since ST10, ST11, and ST15 resorted to omitting this structure in the TT.

Similarly, most of the subjects successfully rendered حصلت جائزة نوبل للسلام (“She has been awarded the Nobel Peace Prize”) into the TT. Indeed, 10 subjects managed to provide appropriate renderings when 5 of these subjects used “won a Nobel prize” and ST3 and ST4 produced “got a Nobel prize”. In the same line, ST6 provided a precise ST equivalent, “women have been awarded Nobel prize”, ST12 produced “Women have received Nobel prize”, and ST17 produced “they obtained Nobel Peace”. Hence, these renderings were

ticked “Adequate”. Besides, 5 renderings were incomplete as the subjects provided near equivalent structures which required some improvements, such as the renderings of ST1 and ST2, respectively: “woman acquires Nobel prize” and “women had earned the prize”.

Similarly, ST10 produced “women have been gained Nobel prize” as he used passive voice, ST11 applied “certificate” instead of “prize” when he produced “Women got the certificate of Nobel”, and ST16 applied an inaccurate verb “Nobel for peace is taken by women”. Hence, these renderings were considered “Improvable”. On the contrary, 2 subjects rendered this structure inappropriately, as ST7 and ST15 resorted to omitting this collocation in the TT. Therefore, they were ticked as “Inadequate”. Most of the subjects did not face difficulties with rendering صنع القرار السياسي (“in political decision making”), as they provided an accurate ST equivalent. As we can see, 10 novices successfully rendered this structure into the TT, as they provided the ST equivalent precisely. However, ST1 produced “in the making of political choices”, when he used “choices” instead of “decision”, but the sentence conveyed the meaning of the ST.

Therefore, all these renderings were ticked as “Adequate”. Besides, 3 subjects provided incomplete renderings, as they produced structures which were close to the ST meaning but not precise equivalents. In other words, ST3 used the inaccurate equivalent for قرار (“decision”) when he produced “discussion making”, ST4 applied “to made the law”, which required some syntactic and structural improvements, and ST15 provided a general structure, “contribute in the political field”. Hence, these renderings were ticked as “Improvable”. In contrast, another 3 renderings were considered “Inadequate” since ST8, ST11, and ST17 resorted to omitting this structure in the TT.

The analysis of تشريع القوانين (“law legislation”) reflects that the majority of the subjects could not provide adequate TT renderings for this structure. Furthermore, 13 renderings were considered “Inadequate” since 11 subjects resorted to omitting this structure and ST1 and ST8 provided inappropriate renderings, as they produced, respectively: “She share with ...the laws” and “And passing important laws”. On the contrary, 4 subjects successfully rendered this structure into the TT. Therefore, they were considered “Adequate”.

The majority of novices were able to convey the meaning of *عند مراجعتنا للمستشفيات* (“when we visit the hospitals”) into the TT. The analysis also shows that 10 renderings were considered “Adequate”, since 8 of these renderings produced “go to hospitals”, though this structure was an imprecise ST equivalent despite expressing the ST meaning appropriately. Moreover, ST5 provided an adequate ST equivalent when he produced “visit the hospitals” and ST17 used the general structure “we can see in the hospital”. Besides, the rendering of ST10 was ticked as “Improvable” when this subject produced “when we enter the hospital”, which is close to the ST meaning but not a precise ST equivalent. On the other hand, 6 subjects resorted to omitting this collocation in the TT. Therefore, they were ticked as “Inadequate”.

Similarly, most of the novices rendered *ارتكب اخطاء فادحة* (“committed serious mistakes”) inappropriately, as they faced difficulties when rendering this collocation into the TT. The analysis shows that 5 subjects provided appropriate renderings, as they were able to convey the meaning of the ST collocation. In other words, ST3 produced “committed huge mistakes”, ST7 rendered it into “make big mistakes”, and ST9 interpreted it into “made a lot of mistakes”. In addition, ST10 and ST12 provided “made a great mistake”. Hence, these renderings were ticked as “Adequate”. Besides, the renderings of ST11 and ST14 were incomplete when these subjects skipped *فادحة* (“serious”) and only rendered “mistake”. Therefore, these renderings were considered “Improvable”. Moreover, 10 renderings were identified as “Inadequate” since 9 subjects deleted this collocation in the TT, in addition to the interpretation of ST2, which expressed a different ST meaning: “conducted a lot of forms and actions”.

5.2.2.4.1 Analysis of Novices' Reports Regarding the Interpretation of Collocations

The analysis of novices' reports regarding the problems in rendering collocations reflects that 61% of the reports relate the problems to monitoring the interpretation, as the subjects did not analyse the majority of these reports but confirmed having the problems. Moreover, 27% of the reports were related to comprehension issues, particularly in perceiving the SL collocations and failure to access the SL meaning. In contrast, 3% of the reports were related

to selecting an accurate equivalent for the SL collocation. Novices' reports regarding the problems encountered during the interpretation of collocations can be found in **Appendix 44**. Below are some of the novices' reports regarding the interpretation of collocations which were mainly related to monitoring aspects.

S.	Novice's Report	Back Translation
ST1	كان الارتباك والتوتر واضحين في ترجمة بعض المتلازمات لايجاد المكافئ الصحيح مثل تبذل المرأة جهودا كبيرة	Confusion and stress were clearly identified during the interpretation of collocations in order to provide a precise equivalent as in "woman exerts a lot of efforts".
ST5	لجأت للترجمة الحرفية لبعض المتلازمات لانها كانت خداعة مثل "شرب الحساء"	I resorted to literal interpretation for several collocations because they were tricky as in "have soup".
ST8	تجاوزت بعض المتلازمات لانني لم اعرف المقابل مثل " ارتكبت اخطاء فادحة"	I skipped some of the collocations because I did not know their equivalents such as "I committed serious mistakes"
ST11	حذفت اغلب المتلازمات لانها كانت صعبة ولم اسمعها جيدا	I have omitted most of the collocations because they were difficult and I could not hear them well
ST16	المتلازمات: حاولت ان ابسطها واعطي المعنى ولا ادري نجحت ام لا	I tried to simplify the interpretation of collocations and express their meaning but, I am not sure whether I succeeded or not!

Table 60: Novices' Post-Interpreting Reports Regarding the Interpretation of Arabic Collocations into English

Category	Subject	Adequate	Improvable	Inadequate
Collocations	ST1	1	4	4
	ST2	4	3	2
	ST3	6	2	1
	ST4	4	2	3
	ST5	6	2	1
	ST6	7	1	1
	ST7	6	1	2
	ST8	4	2	3
	ST9	4	3	2

	ST10	3	4	2
	ST11	1	3	5
	ST12	7	1	1
	ST13	4	2	3
	ST14	6	3	
	ST15	2	2	5
	ST16	2	4	3
	ST17	4	2	3
Total		71	41	41
Ratio		46%	27%	27%

Table 61: Total analysis of novices' renderings for the Arabic collocations into English.

As we can see, the analysis shows the majority of the Arabic collocated structures were interpreted adequately into English, as 46% of total number of collocations were rendered appropriately by the novices. They notably were able to provide ST equivalents and also reproduced the meaning of the ST collocations. However, 27% of the Rich Points that referred to collocations were rendered somewhat inaccurately, as the subjects produced equivalents which were close to the ST meaning. Hence, these renderings required some improvements to be considered adequate renderings. On the contrary, another 27% of the collocations were considered inadequate when the novices mainly resorted to omitting these structures and also reflected a different meaning in the TT.

5.2.2.4.2 Nature of Inadequate Renderings of Collocations

The measuring analysis reflects that the 27% of the Rich Points that refer to collocations were interpreted inadequately. It is clear that the subjects faced difficulties with rendering collocations, which consequently led them to commit mistakes. All the examples that reflect the nature of novices' inadequate renderings can be found in **Appendix 45**. In general, these mistakes were in terms of a) omitting the collocated structures in the TT, and b) misinterpreting them by conveying a different ST meaning.

a) Omitting the collocations

Subjects resorted to omitting the ST collocations when they faced difficulties with rendering these elements into the TT. Indeed, ST10 omitted the collocation *في السراء والضراء* ("in good

and bad times”) during the interpreting task. ST7 deleted the ST collocation *حصدت جائزة* (“awarded a prize”) when he faced difficulties with rendering this structure. Similarly, ST11 omitted the collocation *صنع القرار السياسي* (“in political decision making”) and ST9 resorted to omitting the ST collocation *تشرية القوانين* (“legislate the laws”). In the same line, ST13 could not render the ST collocation *عند مراجعتنا الى المستشفيات* (“when we visit the hospitals”). Moreover, the novices reportedly related this omission to the difficulties of finding the precise ST equivalents.

b) Misinterpreting the collocations

Another source of inadequate renderings of collocations was misinterpreting these elements in the TT by conveying different TT structures which reflected different ST meanings. Indeed, novices provided incorrect ST equivalents during the interpretation of collocations. In other words, ST1 provided an inappropriate rendering for the collocation *اسلط الضوء* (“shed light on”) when this subject produced “Let me shine in”. Furthermore, they reportedly related that to stress and to the difficulties of producing appropriate equivalents. ST4 struggled during the rendering of the collocation, *تبذل المرأة جهودا كبيرة* (“woman exerts a lot of efforts”), when this subject produced the inappropriate rendering “The woman make enforce at home”. Similarly, ST16 failed to interpret the collocation, *فقد حصدت جائزة* (“she was awarded a ...”), as this subject provided “Nobel for peace is taken by women”. Moreover, ST8 rendered the collocation, *تشرية القوانين* (“legislate the laws”), inadequately when this subject produced “And passing important laws”.

5.2.2.4.3 *Strategies Applied During the Rendering of Collocations*

The analysis shows that in several examples of rendering the ST collocations, the subjects applied several positive strategies that helped them to overcome the difficulties of rendering these elements. All the examples of novices’ use of strategies can be found in **Appendix 46**. Three novices applied strategies to overcome the difficulties of rendering *عند مراجعتنا الى المستشفيات* (“when we visit the hospitals”). It is clear that ST6 applied the strategy of approximation when he produced “go to hospitals”. Although other subjects provided the same rendering, only the interpretation of ST6 was considered a strategic solution because only this subject reported in the post-interpreting reflections that “I did not know how to

render “murajaa”. Therefore, I used “go”. On the contrary, ST10 and ST17 applied the strategy of generalization when they produced, respectively: “we enter the hospitals” and “we can see in the hospitals”. Moreover, these subjects reportedly confirmed having difficulties with rendering this collocation and they stated:

ST10: I generalized it.

ST17: I have changed it to more general structure.

Two subjects applied the strategies of approximation and generalization when they rendered السراء والضراء (“in good and bad times”).

Indeed, ST3 used the strategy of approximation when he produced “in good and bad situations”, while ST16 applied the strategy of generalisation when he provided “they stand besides every time”. Moreover, these subjects reported:

ST3: I did not know the literal meaning of this expression. Therefore, I used easier words and close to the original meaning.

ST16: I used more inclusive formula.

ST12 has used the strategy of inferencing when he rendered شرب الحساء (“have soup”).

Moreover, this subject confirmed facing the difficulties with rendering this structure, as he stated “at the beginning I wanted to say ‘drink soup’ but it seemed strange. Therefore, I said ‘have soup’.”

As for the interpretation of اخطاء فادحة (“serious mistakes”), ST14 applied the strategy of skipping when he only rendered “mistake”. Furthermore, this subject reported: “I skipped ‘fadiha’ because if not, I would take a lot of time thinking of its equivalent.” According to the analysis, novices were able to render about half of the Rich Points that referred to Arabic collocations, as they provided the precise ST equivalents and also, in other cases, they conveyed the meaning of these elements in the TT. However, the novices made mistakes with rendering even simple collocations such as يزور المستشفيات (“visit hospitals”), as only one subject was able to provide an adequate rendering for this collocation. The novices reportedly related the inadequate renderings to their inability of providing equivalents, stress, and comprehension issues. Although there was no clear strategic behaviour that the

novices applied while rendering collocations, the analysis identified, in few examples, the use of a few strategies such as approximation, generalisation, skipping, and inferencing, which helped to keep the communication between the speaker and the audience flowing.

5.2.2.5 Analysis of Rendering Culture Specific Terms and Structures

The analysis shows that the novices provided various interpretations for the culture specific terms and structures. In particular, finding the precise ST cultural equivalent was the main problematic aspect for the novices. All the tables of analysing Novices' renderings of culture specific terms and structures can be seen in **Appendix 50**. The expression الخالة ("maternal aunt") was successfully rendered by most of the subjects. Indeed, 14 renderings were ticked as "Adequate" since they provided the precise ST equivalent. On the other hand, ST9, ST10, and ST16 resorted to omitting this expression in the TT. Therefore, these renderings were considered "Inadequate". Moreover, only ST16 confirmed having difficulties with rendering this expression because he did not hear it. The novices were able to render طبخ الاكلات ("cooking the meals"), as most of the subjects interpreted this structure appropriately. The analysis explains that 15 renderings were considered "Adequate" since 13 of these renderings provided ST equivalents when they applied "cooking food, meals, and dishes". Similarly, ST15 and ST17 used "make food", which also conveyed the ST meaning. Besides, the interpretation of ST4 was incomplete as it required some structural rearrangement_ "In made cooking that we love". Therefore, this rendering was ticked as "Improvable". In contrast, ST2 resorted to omitting this structure in the TT, which was considered "Inadequate".

Interpreting وقد استوقفني المثل ("a proverb comes to my mind") literally expresses an inappropriate rendering of this structure, as it refers to a different ST meaning. The analysis illustrates that 11 novices positively managed the rendering of this structure as they conveyed the ST meaning. Hence, these renderings were considered "Adequate". On the contrary, 5 renderings were ticked as "Inadequate", since 4 novices resorted to omitting this structure in the TT while ST11 applied a literal translation which reflected a different ST meaning when he produced "a proverb stopped me".

Similarly, rendering *الا من يديها* (“unless she made it”) literally does not reflect the precise ST meaning, though it is used in some contexts. The analysis shows that 3 renderings appropriately conveyed the implicit meaning of the ST structure, as ST5, ST12, and ST14 produced, respectively: “except what she cook”, “unless she is the one she made it”, and “except the soup my mom made”. Besides, 11 renderings were ticked as “Improvable” since they provided imprecise renderings when these subjects rendered this structure literally (“from her hands”), which may affect the meaning, as it is related to the ST culture. In contrast, 3 renderings were identified as “Inadequate” when ST2, ST11, and ST15 deleted this structure in the TT.

Another cultural structure that required a cultural equivalent during the SI task was *ان ما يتلج الصدر* (“what a heart-warming”). The analysis shows that the subjects rendered this structure differently. In other words, 5 subjects provided accurate cultural equivalents when ST2 and ST4 produced, respectively: “What brings comfort and joy” and “We are more comfortable”. Similarly, ST6, ST12, and ST14 also conveyed the meaning of the ST when they provided, respectively: “It is very satisfying”, “It is very satisfying”, and “what is heart-warming that”. Therefore, all these renderings were ticked as “Adequate”. Besides, two renderings were incomplete and required some improvements, as ST9 and ST11 provided, respectively: “It makes our world is better” and “There is what heal everything”. Hence, these renderings were ticked as “Improvable”. On the contrary, 10 renderings were detected as “Inadequate” when 8 subjects resorted to deleting this structure in the TT. Furthermore, the renderings of ST3 and ST7 were inappropriate, as they produced, respectively, “reliefs the mind” and “relief the chest”, since they were close to literal translation. Hence, these renderings were considered “Inadequate”.

The analysis of *نرفع لها القباعة* (“appreciate woman for her efforts”) shows that the subjects faced difficulties with conveying the implicit meaning of this structure. Rendering this structure into “hats off” or “raise the hats” were incomplete renderings as they may not convey the implicit meaning of this cultural structure. Hence, three renderings were ticked as “Adequate” because they reflected the meaning of the ST appropriately, particularly ST9, “We have to appreciate women”, and ST16 and ST17, respectively: “We should all respect her” and “we have to greet women”. Besides, 8 renderings were incomplete as 6 subjects literally rendered this structure into “hats off” and “raise the hat”, while ST11 and ST15

produced, respectively, “we should trust her” and “we all have to thank women”, which required some changes. Furthermore, 6 renderings were considered “Inadequate” since these subjects deleted this structure from the TT.

It is clear from the analysis that the novices were able to adequately render about half of the Arabic cultural terms and structures into English. Besides, 21.5% were incomplete renderings which required several improvements. Moreover, novices inadequately interpreted 27.5% of the total Rich Points that referred to cultural terms and structures, as the subjects mainly resorted to omitting these aspects in the TT and also conveyed inappropriate ST equivalents.

5.2.2.5.1 Analysis of Novices’ Reports Regarding the Interpretation of Culture Specific Terms and Structures

The analysis reflects that the majority of the problems related to comprehension issues, particularly understanding the intended meaning of these elements rather than rendering them literally, as 49% of the total reports mention that comprehension issues caused the problems with rendering the cultural elements. Moreover, the subjects reported problems with monitoring the interpretation which counted 43% of the total reports. On the contrary, 8% of the reports refer to translation problems as the subjects could not select the appropriate rendition and provide the precise ST equivalent. Novices’ reports regarding the problems encountered during the interpretation of culture specific terms and structures can be found in **Appendix 44**. Below are some of novices’ reflections regarding the problems of interpreting cultural terms and structures which are related to comprehension and monitoring aspects.

S.	Novice’s Report	Back Translation
ST6	واجهت صعوبة في ايجاد البديل الثقافي فلجأت الى الترجمة الحرفية	I faced difficulties with providing the cultural equivalent therefore, I resorted to literal rendering.

ST8	ترجمة اغلب المصطلحات الثقافية حرفيا مثل "نرفع لها القبعة"	I translated most of the cultural terms literally such as "hats off"
ST9	لم يكن لدي الوقت الكافي للاستعانة بالمكافئ الدقيق لبعض المصطلحات الثقافية مثل " استوقفني "	I did not have the time to provide the precise equivalent for some cultural terms like " I remember.."
ST16	لم اسمع جيدا بعض المصطلحات الثقافية ولم افهم معناها لذا لم اترجمها	I did not hear and understand some of the cultural terms, therefore; I could not render them
ST13	واجهت مشاكل في سماع المصطلحات الثقافية ولم يسعفني الوقت في ترجمتها	I faced difficulties with hearing the cultural terms and there was not enough time to render them

Table 62: Novices' reports regarding the interpretation of Arabic cultural terms and structures into English.

Category	Subject	Adequate	Improvable	Inadequate
Cultural terms and structures	ST1	3	1	2
	ST2	3		3
	ST3	3	2	1
	ST4	2	2	2
	ST5	3	1	2
	ST6	4	2	
	ST7	3	1	2
	ST8	3	2	1
	ST9	3	2	1
	ST10	2	1	3
	ST11	2	2	2
	ST12	4	1	1
	ST13	3	1	2
	ST14	5	1	
	ST15	2	1	3
	ST16	3	1	2
	ST17	4	1	1
Total		52	22	28
Ratio		51%	21.5%	27.5%

Table 63: Total analysis of novices' renderings for the Arabic cultural terms and structures into English

As can we see, the adequate renderings of novices for the culture specific terms and structures counted 51% of the total Rich Points that refer to these elements. Besides, approximately 22% of the renderings were incomplete and require slight changes as the novices resorted to literal rendering rather than providing accurate equivalents. On the other hand, 27% of the renderings were inadequate as the novice mainly recourse to omission.

5.2.2.5.2 Nature of Inadequate Renderings of Culture Specific Terms and Structures

The measuring analysis shows that 26% of novices' renderings for the cultural terms and structures were identified as inadequate. Indeed, novices faced difficulties with rendering these elements, which led them to make mistakes that have negative effects on the TT. All the examples that reflect the nature of novices' inadequate renderings can be found in **Appendix 45**. These mistakes were due to a) omitting the cultural terms and structures, and b) resorting to literal interpretation.

a) Omitting the cultural terms and structures

The analysis shows that the main source of inadequate renderings of cultural terms and structures was subjects' recourse of omitting these elements in the TT. In other words, approximately 24% of the Rich Points that refer to cultural terms and structures were omitted in the TT.

Indeed, from the examples above, we see that novices resorted to deleting the Rich Points that refer to cultural terms and structures. The analysis also shows that ST9 omitted the cultural expression الخالة ("maternal aunt"), which is not commonly applied in the TT. ST2 also did not render طبخ الاكلات ("cooking meals"), which has an effect on the ST meaning. Similarly, ST4 faced difficulties with rendering the cultural structure وقد استوقفني المثل ("I remember a proverb"), and ST11 also omitted the cultural structure الا من يديها ("unless she made it") from the TT. Moreover, most of the novices reportedly related omitting these elements to their inability of provide the accurate ST equivalents.

b) Literal translation

The second source of inadequate renderings was interpreting cultural terms and structures literally. The novices followed the rendering of these elements word by word, which reflected a different meaning. It is clear that ST1 inappropriately rendered the cultural structure *الا من يديها* (“unless made by her”), as this subjects followed this structure literally, which reflected a different ST meaning (“but from her hands”). Similarly, ST11 interpreted the cultural structure *استوقفني المثل* (“a proverb which says”) literally into (“a proverb stopped me”). In the same line, ST6 followed the cultural structure *نرفع لها القباعة* (“greet her”) literally though it could be understandable by a TT audience. Moreover, novices reportedly related these choices to the time constrains that prevented them from thinking of the precise ST equivalents.

5.2.2.5.3 Strategies Applied During the Interpretation of Culture Specific Terms and Structures

The analysis reflected that several Rich Points that referred to cultural terms and structures were strategically rendered by the novices. In other words, in a few examples the subjects managed to use strategies that helped them to overcome the difficulties of rendering these elements. All the examples of novices’ use of strategies can be found in **Appendix 46**. Three subjects applied the strategies of approximation and inferencing during the interpretation of *مايتلج الصدر* (“heart-warming”). Indeed, ST6 and ST9 used the strategy of approximation when they provided, respectively: “what really fair” and “It makes our world is better”. On the contrary, ST12 applied the strategy of inferencing when he produced “It is satisfying”. Moreover, these subjects confirmed having difficulties with rendering this cultural structure, as they reported:

ST6: I could not recall the equivalent but I used the expression “fair”.

ST9: I decided to deliver the meaning by using different words.

ST12: I did not know the equivalent but I understood the context and expressed it.

Two other subjects applied the strategies of approximation and generalisation during the interpretation of *نرفع لها القبعة* (“We all should appreciate her efforts”).

The analysis explains that ST9 used the strategy of approximation when he produced “We have to appreciate woman”, while ST16 applied the strategy of generalisation when this

subject rendered this structure into “We should all respect her for her efforts”. Moreover, these subjects asserted having problems with rendering this structure, as they stated:

ST9: I chose to deliver the meaning by using different words.

ST16: I expressed the meaning.

Moreover, ST9 applied the strategy of summarising during the rendering of *وقد استوقفني المثل* (“a proverb comes to my mind”). As we can see, ST9 produced “There is a saying that means”, as he did not know how to render the whole structure in the example above. Moreover, this subject stated in the post-interpreting reports: “I did not have enough time to render it and I decided to summarize it”.

According to the analysis, novices managed to render about half of the Rich Points that refer to cultural terms and structures appropriately, as they provided ST cultural equivalents and, in other cases, they provided the meaning of these elements adequately. However, they also faced difficulties with rendering these elements when they provided incomplete renderings that were imprecise equivalents. Moreover, the main source of inadequate renderings was omitting these elements in the TT and interpreting them literally, which affected the TT negatively. In contrast, no clear strategic behaviour was reported by the novices except few cases when the subjects used the strategies of approximation, generalisation, summarising and inferencing, which helped them to cope with difficulties of rendering these elements. Thus, the novices related these inadequate renderings to comprehension issues and to time constraints that did not let them think deeply to find precise ST cultural equivalents.

5.2.2.6 Analysis of Rendering Terms and Structure with Religious Content

The analysis of novices’ renderings for the terms and structures with religious content shows that novices faced difficulties with rendering these elements. In other words, different interpretations were identified by the novices during the interpretations of these elements. All the tables of analysing Novices’ renderings of terms and structures with religious content can be seen in **Appendix 51**. All of the subjects were able to provide an ST equivalent and

convey the meaning of the opening formula that is widely used in the TT *السلام عليكم ورحمة الله وبركاته* (“May Allah’s peace and blessings be upon you”).

The novices provided different interpretations for this structure. However, all these interpretations are relatively applied in the TT. The analysis shows that 7 subjects rendered this structure literally: “May Allah’s peace and blessing be upon you”, “Peace and blessings of Allah upon you”, “In the name of God most gracious and most merciful”, which is applied formally in the TT. Moreover, ST2 skipped the religious content expression, as he produced “peace be upon you”, which is also close to a literal translation. Other subjects like ST3, ST11, and ST16 resorted to reproducing this structure in the TT, which is commonly used among non-Arab Muslim communities. On the contrary, 6 novices provided a cultural equivalent when they rendered this structure into “hello”. Therefore, all these renderings were ticked as “Adequate”.

Various renderings were identified for the *منذ صلاة الفجر* (“since dawn prayer”) as several subjects have rendered this structure literally while others conveyed the ST meaning of this structure. According to the ST context, the Arabic religious structure *منذ صلاة الفجر* referred to (“early hours in the morning”). Therefore, providing a literal translation will not reflect the complete meaning of the ST. The analysis shows that 8 renderings expressed the implicit meaning of the ST, as they skipped the religious structure and produced its effect in the TT: “since early hours in the morning”. Besides, 5 subjects followed a literal translation and provided “from dawn prayer, Alfajer prayer”, which were considered incomplete renderings as the ST meaning has not been fully conveyed. Hence, these renderings were ticked as “Improvable”. In contrast, 4 renderings were considered “Inadequate” since ST2, ST5, and ST15 resorted to omitting this structure in the TT while ST1 produced an inappropriate rendering: “She wakes up to pray”.

The analysis of *اذكركم بحديث المصطفى "صلى الله عليه وسلم" الجنة تحت اقدام الامهات* (“I remind you of Hadith Almustafa ‘PBUH’, ‘paradise is under the mothers’ feet’”) reflects that the majority of the novices were able to interpret this structure appropriately. Indeed, 13 renderings were considered “Adequate” since they positively managed to render this structure into the TT. Moreover, ST7 skipped the opening expressions of this structure and only produced

“Mohammed said the heaven under mothers’ feet”, which reflected the meaning of the ST. On the contrary, 4 renderings were ticked as “Inadequate” since ST11, ST15, ST16, and ST17 resorted to omitting this structure, as they only produced “I remember the hadith of the prophet Mohammed...”.

Most of the novices faced difficulties with rendering *رحمها الله* (“May she rest in peace”), as they have resorted to omitting this structure in the TT. The analysis explains that 15 renderings were ticked as “Inadequate”, since 14 novices deleted this structure in the TT while ST1 provided an inappropriate rendering when he rendered this structure into “God bless her”. Moreover, most of the subjects reportedly related that to comprehension issues, in addition to the time constraints that prevented them from providing adequate renderings. In the same line, ST3 and ST9 successfully interpreted this structure, as they produced “May she rest in peace”.

The analysis of *من الباري عز وجل* (“from the Lord to humanity”) shows that the majority of the novices rendered this structure appropriately. Indeed, 12 subjects successfully provided the ST equivalent when 11 of them produced “from God” and ST10 skipped this religious expression but the ST meaning was preserved: “Women are the greatest gift to society”. These renderings were considered “Adequate”. Besides, the interpretation of ST9 was incomplete, as it missed part of the ST structure when this subject produced “Women are the greatest ... to humanity”. Similarly, ST11 reproduced the religious expression “AlBari” when he rendered this structure into “The most beautiful gift from the AlBari”. Hence, these renderings were identified as “Improvable”, while 3 renderings were considered “Inadequate” since ST15, ST16, and ST17 resorted to omitting this structure in the TT.

The majority of the subjects faced difficulties with rendering the Quranic verse, as they mainly produced inappropriate renderings. It is clear that 14 subjects provided inappropriate renderings when 5 novices resorted to omitting this verse in the TT. Moreover, ST3 and ST5 reproduced the verse in the TT, and other 5 novices interpreted only “I remind you of Aya...”, but they did not render the verse. In addition, the rendering of ST8 was inappropriate, as this subject hesitated during the rendering and did not reflect the meaning

properly, as he produced “God says we recommended the human for her parents ... his mother ... in her ahah in here”. Therefore, these renderings were ticked as “Inadequate”.

Besides, 2 renderings reflected part of the meaning and required slight changes when ST10, and ST16 produced, respectively: “I would like to remind you of this verse... which is referred to how to treat your mother” and “I remind you of the Aya; wawasaina Alinsana Biwalidaih, meaning we should be careful to woman”. Thus, these renderings reflected a very broad meaning of the verse. Therefore, they were identified as “Improvable”. Furthermore, only one rendering was considered “Adequate”, since ST2 conveyed the meaning of the verse appropriately: “God told us the human to take care of his parents”.

As for علينا البر بها (“we have to do good to her”), the analysis shows that most of the subjects reflected the meaning of this structure appropriately in the TT. As we can see, 12 subjects successfully conveyed the ST meaning: “take care of woman, respect the women, honor the women, be kind and greet the women”. Hence, these renderings were considered “Adequate”. Besides, the interpretations of ST11 and ST14 were incomplete and required slight changes as they produced, respectively: “we should protect her” and “we need to have respects for our mother”. On the contrary, 3 novices resorted to omitting this structure in the TT. Therefore, they were considered “Inadequate”.

5.2.2.6.1 Analysis of Novices’ Reports Regarding the Interpretation of Terms and Structures with Religious Content

Rendering the terms and structures with religious content is considered the main problematic element for the novices, as they reported more problems than with other categories. The analysis illustrates that 56% of the total reports are related to monitoring the interpretation, particularly self-evaluation of the performance, other unanalysed problems, problems related to the time between the SL and the TL, and problems related to accuracy of interpretation. Furthermore, 26% of the total reports were related to problems in comprehension, as the subjects reportedly faced difficulties with understanding these elements, which has a negative impact on the interpretation. Moreover, the subjects reported problems with selecting the appropriate rendering and with providing the precise equivalent,

as these reports represent 18% of the total reports. Below are some of the novices' reports regarding the interpretation of terms and structures with religious content, which are mainly related to comprehension, monitoring and translation aspects.

S.	Novice's Report	Back Translation
ST8	لم افهم معنى الكثير من المصطلحات الدينية فكان علي تجاوزها	I could not understand many religious terms, therefore; I had to skip them
ST11	حذفت الكثير من المصطلحات الدينية لاني خفت ان احرف المعنى في الترجمة	I deleted many religious terms because I was afraid to deviate the meaning during my rendering
ST13	لم يسعفني الوقت لترجمة الكثير من المصطلحات الدينية	Time constrains did not let me to interpret many religious terms
ST15	لم اعرف كيف اترجم الكثير من التراكيب الدينية مثل الاية القرآنية ورحمها الله	I did not know how to interpret many religious structures such as the Quranic verse and "may her soul rest on peace"
ST16	لم اترجم الجزء الذي لم افهمه من المصطلحات الدينية وخاصة الاية القرآنية	I did not interpret the parts of the religious structures that I could not understand specifically the Quranic verse

Table 64: Novices' post-interpreting reports regarding the interpretation of Arabic terms and structures with religious content into English.

Category	Subject	Adequate	Improvable	Inadequate
Terms and structures with religious content	ST1	3		4
	ST2	5		2
	ST3	5	1	1
	ST4	5		2
	ST5	4		3
	ST6	4	1	2
	ST7	4	1	2
	ST8	4		3
	ST9	5	1	1
	ST10	4	1	2
	ST11	2	2	3
	ST12	4	1	2
	ST13	4		3

	ST14	4	1	2
	ST15	2		5
	ST16	3	1	3
	ST17	2	1	4
Total		64	11	44
Ratio		54%	9%	37%

Table 65: Total analysis of novices' renderings for Arabic terms and structures with religious content into English.

The analysis explains that more than half of the total Rich Points that referred to terms and structures with religious content were interpreted appropriately, as the novices were able to convey the ST meaning in the TT. Besides, about 9% of renderings were incomplete and required some improvements. In contrast, 37% of subjects' renderings were inadequate, as the novices mainly resorted to omission.

5.2.2.6.2 Nature of Inadequate Renderings for the Terms and Structures with Religious Content

The analysis shows that 37% of the total renderings for the terms and structures with religious content were interpreted inadequately. In other words, novices encountered problems with rendering these elements. These problems forced the subjects to omission, as 25% of these elements were omitted, which has a negative effect on the TT. All the examples that reflect the nature of novices' inadequate renderings can be found in **Appendix 45**. It is clear that ST2 omitted the religious structure صلاة الفجر ("dawn prayer") and ST17 encountered problems with rendering the prophet's speech, as this subject resorted to omitting it from the TT: "هنا أذكركم بحديث المصطفى " صلى الله عليه وسلم " الجنة تحت أقدام الأمهات " ("Here I remind you of the AlMusta's hadith 'PBUH', paradise is under the mother's feet"). Similarly, ST4 did not render the religious structure رحمها الله ("may her soul rest in peace"). The religious expression أجمل هدية من الباري إلى الإنسانية ("the most beautiful present from the Almighty to humanity"), was omitted in the interpretation of ST15. In the same line, ST10 omitted the structure that refers to filial piety علينا البر بها ("we have to honor her").

It is clear from the examples above that the novices resorted to omitting the terms and structures with religious content, which was reportedly due to their concerns about deviating from the meaning of these elements in the TT.

5.2.2.6.3 Strategic Analysis of Rendering Terms and Structures with Religious Content

The analysis reflects that the subjects did not clearly apply the necessary strategies to overcome the problems of rendering the terms and structures with religious content. Moreover, omitting the religious terms and structures is considered the main source of inadequate renderings. However, in few examples, the novices applied strategies that helped to keep the communication between the speaker and the audience flowing. All the examples of novices' use of strategies can be found in **Appendix 46**. The subjects applied the strategies of reproduction and skipping during the rendering of the Quranic verse below. In the same line, ST3, ST5, and ST9 reproduced the same ST verse in the TT, as they reported:

ST3: I am unable to interpret verses and I am Arabic as deviating the meaning is forbidden. Therefore, I mentioned it in Arabic.

ST5: Quranic verses require understanding their meaning first and then rendering them but due to time constrains I could not do that. Therefore, I resorted to reproduce it in the TT.

ST9: I decided to reproduce the verse in the TT because I was afraid of deviating the meaning or conveying incorrect TT meaning.

ST11: I preferred not to deviate the meaning of the verse.

Two subjects applied the strategy of skipping when they faced difficulties with rendering *رحمها الله* (“may she rest in peace”). Moreover, ST5 and ST14 reportedly confirmed having difficulties with rendering this structure, as they stated:

ST5: I could not render it because I could not find its equivalent during the time limit of the task. Therefore, I skipped it.

ST14: I decided to skip it.

Two other subjects applied the strategies of skipping and generalisation during the interpretation of علينا البر بها (“we have to do good for her”). In this regard, ST10 and ST12 stated in the post-interpreting reports:

ST10: I could not find the equivalent. Therefore, I skipped it.

ST12: I could not express the precise ST equivalent. Therefore, I mentioned women in general rather than only the mother.

Moreover, ST14 applied the strategy of skipping during the rendering of the prophetic speech اذكركم بحديث المصطفى "صلى الله عليه وسلم" الجنة تحت اقدام الامهات (“I remind you of the hadith Almustafa “PBUH” “paradise is under the mothers’ feet”) as this subject provided (“I remind you of Mohammed’s hadith which is the paradise is under the mothers’ feet”). This subject reported in the post-interpreting reflections that “I decided to skip it”.

According to the analysis, the novices were able to appropriately render more than half of the total Rich Points that referred to terms and structures with religious content, as they provided the ST meaning in the TT. However, they also faced difficulties with rendering these elements, as they mainly resorted to omitting them in the TT. Moreover, no clear strategic behaviour was detected except in a few examples when several subjects reportedly confirmed applying the strategies of skipping, generalisation and reproduction. Furthermore, novices reportedly related the problems to their concerns of deviating from the meaning of ST, comprehension issues, and time constraints.

5.2.2.6.4 Strategies Applied by the Novices During SI Task from Arabic into English

As discussed earlier, according to the analysis of novices’ interpreting recordings and their post-interpreting reports, they applied several strategies that helped them overcome the problems of rendering the Rich Points. Below is a list of the applied strategies.

Table 66 illustrates the total number and the percentage of analysing novices’ renderings for the six categories during the SI task from Arabic into English.

Category	Adequate	Improvable	Inadequate
Proper names	111	29	47
Numbers	71	3	79
Passive voice	83	17	36
Collocations	71	41	41
Culture specific terms and structures	52	22	28
Structures with religious content	64	11	44
Total	452	123	275
Ratio	53%	14.5%	32.5%

Table 66: Analysis of novices' renderings for the six categories during the SI task from Arabic into English.

It is clear from Table 66 that the novices were able to provide adequate renderings for 51.5% of the total number of the Rich Points which referred to the six categories. Besides, 14.5% of those were incomplete interpretations that were not perfectly interpreted and require slight changes. On the contrary, the percentage of inappropriate renderings that were inadequately interpreted was 34%, which have a negative impact on the TT.

5.2.2.7 Results of Analysing Novices' Reports Regarding the Problems of Rendering the Rich Points During the SI Task from Arabic into English

1. As in the previous task, many novices could not express the reasons for their inadequate renderings for the Rich Points, as they only stated "no problem" for most of the post-interpreting questions.
2. According to novices' reports, monitoring issues (emotive self-evaluation of performance, unanalysed problems, awareness of the ST timing relative to the TL production) were considered the main causes of problems during the SI task from Arabic into English. In this context, these aspects counted for 43% of the total reports. Besides, 42% of the total reports considered comprehension aspects (i.e. hearing and understanding the Rich Points,

failure to access the meaning of an SL segment) as the main source of problems. In contrast, the novices reported few problems that occurred due to simultaneity of the task and other interpreting aspects, which respectively represented 8% and 7% of the total reports.

3. As in the previous task, the analysis of novices' reports reflects that the cultural elements, particularly terms and structures with religious content, were the main problematic element for the novices during the SI task from Arabic into English, as the novices reported having more problems than with other elements. In this regard, 25% of the total reports were related to problems with rendering terms and structures with religious content.
4. The analysis shows that the novices confirmed having problems in many occasions but they could not analyse or explain the causes of these problems. Hence, the percentage of unanalysed problems that were included within monitoring aspects is 22% of the total reports. Moreover, the novices referred to other of Ivanova's monitoring aspects, which represented approximately 20% of the total reports such as mood (emotive self-evaluation of performance), timing (awareness of the ST timing relative to the TL production), and inner speech monitoring (verification of the TL message against TL rules prior to articulation).
5. During the rendering of lexical elements (proper names and numbers), the novices reportedly related the problems to the simultaneity of the task (problems created by high SL input relative to S's individual output rate). Moreover, the novices considered translation aspects such as TL retrieval (reported problems in accessing a (number of) TL rendition for a SL segment) and equivalence (problems in selecting a contextually appropriate equivalent among a number of retrieved variants) as the main sources of the problems with rendering terms and structures with religious content.

5.2.2.8 Results of the Analysis of Novices' Interpretations during the SI Task from Arabic into English

1. The novices encountered problems with interpreting all six of the categories designed for this study, as the total percentage of the inadequate renderings was 34%. Besides, 23% were incomplete renderings that required several changes to be appropriate. However, interpreting Arabic number segments was deemed as the main problematic element for the novices, as the percentage of inadequate renderings represented 60% of the total Rich Points that referred to these segments, while the interpretation of proper names was considered the less problematic element, as it registered 25.5% of the total number of proper names.
2. As in the English into Arabic task, the analysis explains that the novices lack the experience of applying the required strategies to overcome or even to prevent the problems during the SI task. The novices overcame several difficulties but this was not strategically oriented behaviour as they did not report having problems or even use the strategies to solve these problems. Moreover, the main solution of subjects is to omit the Rich Points once they encounter a problem during the SI task.
3. Novices reportedly felt stressed, confused, and hesitated when they faced difficulties during the SI task from Arabic into English. Obviously, these feelings had a negative impact on the novices, who resorted to omission, misinterpretation, and literal translation, as they could not cope with these feelings and were not able to manage these issues towards overcoming the problems or even preventing them.
4. The analysis of subjects' reports regarding the problem identification reflects that most of the problems were encountered due to comprehension issues, particularly perceiving and understanding the Rich Points and difficulties with hearing the speaker properly. In the same line, reports related to comprehension problems during the English into Arabic task were 67% of the total reports,

whereas in the Arabic into English task comprehension issues represent 47% of the total reports.

5. Although interpreting proper names is considered the less problematic element among the categories during the Arabic into English task, novices faced difficulties with rendering several proper names which were originally English names such as “Elizabeth Blackwell”, “Marie Curie”, and “Margaret Thatcher”. Due to the difficulties of recalling these names within the time constraints of the interpreting task, novices resorted to omitting them or skipping part of the names, as there were no other strategic choices that led to overcome or avoid these difficulties.
6. The interpretation of Arabic numbers was considered the main problematic element among the six categories, as the percentage of inadequately interpreted segments was 60% of the total segments. As with other categories, novices mainly resorted to either omitting the numbers or conveying different numbers in the TT, which has a negative impact on the interpreting process. Furthermore, the novices mostly lack the experience of coping with the difficulties of rendering these elements, though in several examples, novices applied the strategy of generalisation that kept the communication between the speaker and the audience flowing.
7. Novices were able to convey the meaning of the majority of passive structures into English, as the analysis was mainly based on conveying the functional equivalent. However, a good number of the TT renderings of the Rich Points required several changes in the syntactic structure of the passive voice as most of the subjects did not consider the structural difference between English and Arabic. Furthermore, the main source of inadequate renderings was omitting these structures in the TT as well as also providing inappropriate renderings which have a negative impact on the TT. Thus, novices reportedly related these inadequate renderings to the speech delivery rate, stress, and the complexity of the interpreting task.

8. The subjects were able to render about half of the Rich Points that referred to collocations, as they adequately conveyed the meaning of most of these elements. However, there were many incomplete and inadequate renderings when the novices provided imprecise equivalents, rendered the collocations literally, and omitted the collocations in the TT. Moreover, no clear strategic behaviour has been adopted by the novices during the interpretation of Arabic collocations into English.
9. Although half of the Rich Points for cultural terms and structures were adequately rendered, novices produced incomplete renderings when they followed the ST literally or provided imprecise equivalents which were close to the ST meaning but were inaccurate. Moreover, omitting these elements in the TT was the main solution that was applied by the novices, as they lack other positive solutions to solve the problems. Furthermore, they reportedly related these problems to comprehension issues as they required time to provide precise ST equivalents.
10. Novices faced difficulties with interpreting structures with religious content as they mainly resorted to omitting these elements and they could not express the ST meaning of these elements. Although half of the Rich Points that referred to these elements were rendered adequately, the novices committed mistakes, particularly when they could not grasp the meaning of these elements from the context, and they were even unable to use the required strategies to solve the problems. Thus, the novices reportedly were sensitive to rendering Quranic verses, as they reportedly were afraid of deviating from the implicit meaning of this holy text. Furthermore, they also related the mistakes of rendering these elements to comprehension issues that prevented them from understanding the implicit meaning of these expressions.
11. Remarks of hesitations, fatigue, and tiredness were identified during novices' interpretations, which reflect the difficulties that the novices experienced during the SI task. The novices, thus, lack the confidence, particularly when they face difficulties, and immediately resorted to omitting the Rich Points. This could be due to novices' inability to apply other strategies that help to reduce the cognitive

pressure and keep the communication act. Furthermore, two novices were unable to continue their renderings and stopped rendering at the beginning of the last paragraph, which seemed due to the remarks of fatigue and tiredness on the subjects' performance.

12. As in the previous task, the effects of the problems extended to other segments and were not limited to the Rich Points. In other words, the novices' main solution was to omit the Rich Points and, sometimes, that omission extended to the neighbouring segments. Therefore, the carry-over effect is clearly identified during novices' omission, hesitations, and pauses.

5.2.3 General Reflections on the Novices' Study

In this chapter, measuring novices' renderings for the lexical, syntactic, and cultural elements shows that the novices encountered problems with rendering all of these categories. However, rendering numbers was considered the main problematic aspect during both SI tasks. The nature of inadequate renderings by novices was mainly due to subjects' omission of these Rich Points, and also to providing different ST equivalents. The novices are not fully aware of the problems encountered, as there were differences between the number of problems mentioned in their reports and the analysis of their interpreting recordings. However, based on the subjects' reports, comprehending the ST was the main cognitive process that shows evidence of problems, particularly perceiving the ST expressions, and difficulties with hearing the ST, which affected negatively on the TT.

Novices lack the use of the necessary interpreting strategies that help interpreters to solve or prevent the interpreting problems and reduce the cognitive load. This was clearly noticed when they, in few examples, applied these strategies that keep the communication between the speaker and the audience flowing. With regard to directionality, there were no significant differences in the direction of interpreting, as the number of problems in both tasks is close. In contrast, the results of the analysis of subjects' renderings reflect that the novices had more problems when rendering from English into Arabic, which was confirmed by the subjects' reports that were related to comprehending the SL. Finally, most of the subjects reportedly felt stress and unrest when they encountered problems during the interpretation

of the Rich Points, which has negative effects on their performance, as they lack the experience to cope with these situations.

5.2.4 Comparison of Novices' Renderings during the Two SI Tasks Regarding the Problems Encountered and the Strategies Applied

1. In terms of directionality, the number of mistakes committed by the novices during the interpretation of the Rich Points was not big. The analysis reflects that the percentage of inadequate renderings of lexical, syntactic, and cultural elements was 37.5% of the total number of Rich Points in the English into Arabic task. In contrast, 34% was the percentage of inadequate renderings for the Rich Points in the Arabic into English task. Moreover, 9 novices reportedly felt more comfortable rendering from English into Arabic, as they think rendering into their A language is more resilient. On the contrary, 5 subjects preferred rendering from Arabic into English, as they think comprehending the ST is the most important aspect during the interpreting task. This comes in line with most of the subjects' reports regarding problem identification, as 67% of the reports related to problems in comprehension during the English into Arabic task. Besides, 3 novices stated that there was no difference in the direction of interpreting, as each task had its own difficulties.

Categories	E into A		A into E	
	total	ratio	total	ratio
Proper names	60	35.5%	47	25.5%
	total	ratio	total	ratio
Numbers	71	46%	79	51.5%
	total	ratio	total	ratio
Passive voice	46	34%	36	26.5%
	total	ratio	total	ratio
Collocations	38	28%	41	27%
	total	ratio	total	ratio
Culture specific terms and structures	51	37.5%	28	27.5%
	total	ratio	total	ratio
Terms and structures with religious content	51	43%	44	37%
	total	ratio	total	ratio

Total	total	ratio	total	ratio
	317	37%	275	32.5%

Table 67: Total number and the percentage of inadequate renderings of both SI tasks.

Furthermore, novices reported more problems during the Arabic into English SI task, as they reported 274 problems, while 226 problems were identified by the novices' reports during the English into Arabic task.

2. Although the number of inadequate renderings of proper names was relatively close in both tasks, the novices committed more mistakes with rendering English names into Arabic than in the other direction. This may be related to the effect of directionality, as the novices were rendering from their B language (English) into their A language (Arabic). Thus, this effect may extend to the use of strategies, as novices used more strategies with rendering Arabic names into English than in the other direction. This reflects that the subjects faced more difficulties with rendering Arabic names into English but they reduced the number of inadequate renderings by using the strategies that overcame these difficulties. Although rendering numbers was regarded as the main problematic element in both tasks, the analysis reflected that rendering these elements was more problematic in the English into Arabic task than in the other direction. In other words, the analysis shows that 60% of these elements were inadequately rendered during the Arabic into English task while the total was 48% for the other direction.

Category	English into Arabic	Arabic into English
Number of inadequate renderings of proper names	59	48
Number of inadequate renderings of number segments	71	92

Table 68: Number of novices' inadequate renderings of the lexical elements in both SI tasks.

3. The number of inadequate renderings of syntactic elements (passive voice, collocations) was close in both tasks. However, rendering English passive voice was more difficult for the novices because literal translation of these elements did not reflect the precise ST meaning as passive voice is not commonly applied in Arabic.

On the contrary, novices faced difficulties with forming the correct syntactic structure of Arabic passive voice in English as Arabic does not have auxiliary verbs. As for the rendering of collocations, the number of inadequate renderings was close in both directions as the novices, once faced the difficulties, have mainly resorted to omitting these elements. Moreover, the novices used more strategies during Arabic into English task than on the other direction which refers to having more difficulties with providing precise Arabic equivalents in the English.

Category	English into Arabic	Arabic into English
Number of inadequate renderings of passive voice	48	37
Number of inadequate rendering of collocations	38	41

Table 69: Number of novices' inadequate renderings of the passive voice and collocations in both SI tasks.

- Regarding the interpretation of cultural elements (cultural terms and structures, terms and structures with religious content), the novices committed more mistakes with rendering culture specific terms and structures in the English into Arabic task, as they mainly resorted to omitting these elements. Thus, they could not provide cultural equivalents in Arabic, which was reportedly related to comprehension issues. Moreover, they applied more positive strategies such as generalisation, approximation, and inferencing during the Arabic into English task, as they comprehended the meaning but could not provide precise English equivalents. In contrast, there were no clear differences with rendering religious structures in both tasks, as the percentage of inadequate renderings was close. However, the novices reportedly did not like to deviate from the meaning of Quranic verses. Therefore, they resorted to reproducing it in English.

Category	English into Arabic	Arabic into English
Number of inadequate renderings of cultural terms and structures	51	27

Number of inadequate renderings of terms and structures with religious content	51	44
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Table 70: Number of Novices' Inadequate Renderings of the Culture Specific Terms and Structures in both SI tasks and Terms and Structures with Religious Content in both SI Tasks.

5. In both SI tasks, the novices related the causes of the problems with rendering the Rich Points to comprehension issues such as understanding the SL expressions and hearing the SL words properly. Furthermore, the novices could not manage to cope with these issues through the use of the required strategies and tactics that aim to solve them or even prevent them. However, the novices' main solution to these issues was to omit the rich point through hesitation and pauses, which has a negative impact on the interpreting process.
6. No clear strategic behaviour has been detected during the novices' renderings in both SI tasks. However, the analysis illustrates that the subjects used more strategies during the interpretation from Arabic into English than in the other direction. In the same line, the analysis shows that 32 strategies were applied during the Arabic into English task while 14 strategies were used in the other direction. Consequently, the use of these strategies had a positive effect on the number of inadequate renderings during the Arabic into English task.
7. Mainly in the English into Arabic task, the subjects were unaware of most of the difficulties they faced and the mistakes they made. Moreover, even with adequate solutions of the potential problems, the novices did not report managing these problems by the use of necessary strategies.
8. In both tasks, the novices reported that they encountered stress, unrest, and bad feelings, particularly when they faced difficulties with rendering the Rich Points. However, the novices did not direct these issues towards solving the problems of renderings the Rich Points. Moreover, the majority of the novices reportedly did not know whether they solved the problems or not.

5.3 Concluding Remarks of Chapter Five

1. This study shows that experts rendered the majority of lexical, syntactic, and cultural elements adequately during both SI tasks from English into Arabic and from Arabic into English. Besides, several examples of incomplete interpretations were identified as experts focused on conveying the meaning of the Rich Points. On the other hand, novices encountered problems with rendering all of these categories. However, rendering numbers was considered the main problematic aspect for novices during both SI tasks.

2. Experts were able to identify the problems and report the cognitive processes that were involved in these problems which helped them to successfully deal with these problems and avoid their negative effects on the interpreting process. This reflects their awareness of dealing with the elements that cause problems for interpreters such as names and numbers. On the contrary, novices could not recognize the problems as the results of analysing their post-interpreting reports did not match with the results of analysing their interpreting recordings regarding the problems, which has a negative effect on the interpreting process.

3. Experts in this study reflected their successful use of interpreting strategies that help interpreters to overcome the problems and reduce the cognitive load. The subjects expertly used the strategy of inference when they relied on the context to grasp the meaning rather than following the ST word by word, which also mitigates the cognitive load on interpreters. Moreover, experts used techniques such as starting the rendering of names and numbers once uttered by the speaker and paying more attention to these elements during the SI, which helped them to avoid misinterpreting them. This is not found in the analysis of novices' renderings as they lacked the use of the necessary interpreting strategies as they only resorted to omission when they faced the problems.

4. The nature of novices' inadequate renderings referred to subjects' main resort to omitting the Rich Points which has a negative effect on the interpreting process and on their performance. Moreover, they applied literal translation for SL collocations and culture specific terms and structures which reflected different TL meaning. On the other hand, experts avoided literal translation during their interpretations as they relied on their skills and knowledge to grasp the meaning of the SL and express it in the TL.

5. In terms of directionality, this study revealed that no clear differences have been identified during the analysis of experts' renderings as they notably provided adequate renderings in both SI tasks. Similarly, there were no significant differences in the direction of interpreting for the novices as the number of problems in both SI tasks was close though the novices have encountered more problems when rendering from English into Arabic, which was confirmed by the subjects' reports that were related to comprehending the SL.

6. Most of the novices reportedly felt with stress and unrest when they encountered problems during the interpretation of the Rich Points, which have negative effects on their performance, as they lack the experience to cope with these situations. Similarly, some of the experts reflected the same feeling but they reportedly indicated that this feeling motivated them to solve the problems by the use of necessary strategies.

CHAPTER SIX

DISCUSSION, CONTRIBUTIONS, AND CONCLUSIONS

This chapter will be divided into three main sections. The first section will try to discuss the main aspects in light of the results of my empirical study. The second section will identify the main contributions of this study to interpreting training, as it deals with the English-Arabic-English pair of languages, which sheds new light onto existing research on cognitive processes implied in SI. Finally, the third section will present the final conclusions derived from the whole study.

6.1 Discussion

This section will discuss the main results obtained from this study: (1) subjects' awareness of problems; (2) cognitive processes involved in the problems; (3) errors in the subjects' interpretations (product); (4) strategies applied to solve the problems; (5) comparison of experts' and novices' performances, and (6) the effect of directionality on the subjects' renderings.

6.1.1 Subjects' Awareness Regarding the Interpreting Problems

According to the information collected from the post-interpreting reports (post-task questionnaires and questions) carried out by both novices and experts, this study shows that experts were more accurate, detailed, and elaborative in their reports regarding problem identification. This statement agrees with Ivanova's (1999) study, in which experts' representation of the problems that they encountered during the SI task tends to be more elaborate and localised than that of the novices. In the same line, this study supports Kaiser-Cooke's (1994) claim that "problem-recognition is seen as a salient feature of Expertise", as it is one of the main aspects that make novices unable to produce adequate renderings. She concludes that "[w]e are all familiar with novices or laypersons who describe texts as 'easy to translate' because they are not aware of the difficulties (i.e. the nature of the problem) involved" (Kaiser-Cooke, 1994: 137).

Evidence of experts' ability to recognise the problems is the reports of two experts, P5 and P4, respectively:

“Yes, I had to render it in a longer form in Arabic, but when it was mentioned again in the speech, I used a short Arabic form which I don't like that much” and “I couldn't quite decipher the words ‘helpful tool’ but I was able to understand from context that the sentence had a positive meaning”.

Novices, in contrast, were unaware of most of the interpreting problems that occurred with rendering all the categories, as they were unable to identify these problems and they mostly reported “no problem”. They could not even provide explicit explanations for the problems that were identified in their reports. Unawareness of problems prevented the novices from finding solutions for these problems, since problem identification is regarded—as we have already mentioned before—as a crucial aspect towards solving the problems and it is one of the three pieces of advice for translators to measure their strategic competence besides cultural and contextual knowledge (Piotrowska, 1998).

This might be due to not having sufficient practice to determine what a problem is and how it can be solved, as claimed by Padilla et al. (2005), who argued that professional interpreters show a higher degree of recall as compared with students, particularly during a demanding task like SI. Secondly, novices might find it difficult to identify the problems they encountered during the SI task because of the complexity of the SI task. This comes in line with Englund Dimitrova and Tiselius's (2014) study which relates the low degree of reports to subjects' inability to recall a few of the problems they actually encountered or because they did not want to report some of the problems they actually had and remembered due to, for example, fatigue.

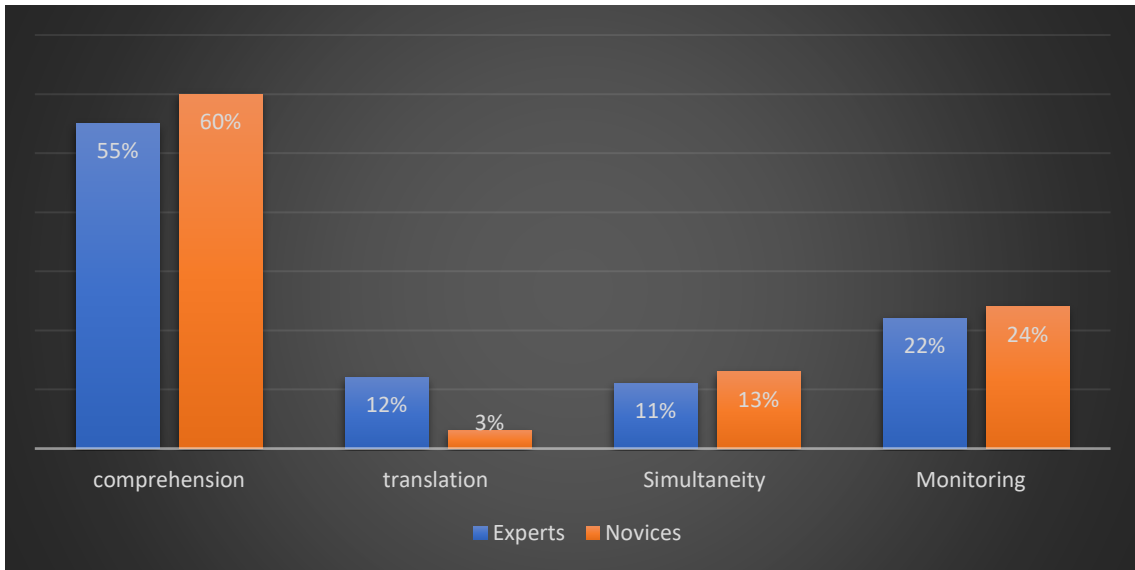


Figure 10: Experts and novices' reports regarding the causes of problems during the English into Arabic task.

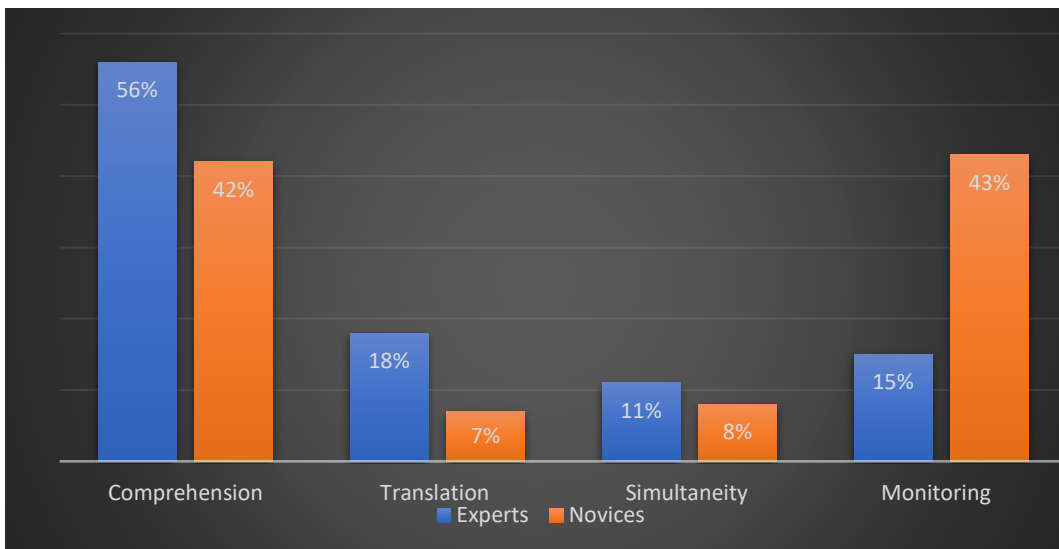


Figure 11: Experts and novices' reports regarding the causes of problems during the Arabic into English task.

6.1.2 Typology of Problems Identified by the Subjects of the Study

In this section, we will discuss the different kinds of problems identified by the subjects of the study. In other words, it deals with bottom-up processing of information. These problems belong to the following categories: (1) comprehension problems, (2) production problems, (3) simultaneity problems, and (4) monitoring problems.

6.1.2.1 Problems Related to Comprehension of the SL Segments

As illustrated in figures 10 and 11, this study shows that most of the problems encountered by both experts and novices while performing the SI task were due to comprehension problems. This result differs from Dillinger's (1989: 97) finding that "comprehension in interpreting is not a specialized ability, but the application of an existing skill under more unusual circumstances". However, this study showed that there is a specific difference in the comprehension process between experts and novices regarding syntactic processing. This result is not in line with Dillinger's (1989, 1990) argument which states that there was no significant difference in the comprehension process between experts and bilingual non-interpreters' ability of syntactic processing.

It is important to mention that experts, in some cases, reported problems with comprehension, but they were determined to solve them by using the necessary strategies that overcome these problems. This finding agrees with Riccardi's (2005) study which states that, in terms of comprehension, professional interpreters were rapidly able to update their mental models and distinguish between important and secondary information. She asserts that "experts applied planning strategies leading to rapid access of lexical, syntactic and semantic choices" (Riccardi, 2005: 758). In the same line, the results of this study agree with Yudes et al., (2013) findings that the intensive training and the continued practice of the interpreters can change the way they confront comprehension.

6.1.2.2 Problems Related to Production of the TL Segments

In addition to comprehension problems, output problems or, as discussed by Gile (1995) under "Production Effort", were handled properly by experts in both SI tasks. In other words, experts applied their linguistic and extralinguistic knowledge to produce adequate renderings for the SL segments, which was the focus of interest by scholars such as Chesterman (1997), who considers the production phase of interpreting as part of the translator's goal. Jääskeläinen (1996) also finds in her study that experts can apply more processing capacity for production strategies than novices.

On the contrary, novices failed to identify the causes of producing inadequate renderings. Though they have not reported many problems with producing the TT, the analysis of the nature of their inadequate renderings explains that they encountered problems with producing adequate output. This result agrees with Jääskeläinen (1996), who argues that novices are less efficient in processing than professionals, which means that novices can process less in more time, whereas professionals process more in less time.

6.1.2.3 Problems Related to Simultaneity of the SI Task

Problems due to the simultaneity of the task subsume those problems resulted from the processing of two simultaneous messages—the ST and the TT—and the allocation of attentional resources. This study shows that experts have the experience to deal with all the circumstances during the SI task as they understand how to manage the available processing capacity among the efforts, as suggested by Gile (1995: 169) in his Efforts model: “the processes and operations of interpreting take effort and ... the development of Expertise in interpreting may not result in automatic processes, but in better management of mental resources”. In other words, experts report problems encountered by high SL input relative to a subject’s individual output rate, particularly while rendering collocations and terms and structure with religious content in the English into Arabic task, and with rendering Arabic names, numbers, terms and structures with religious content into English, which supports the claim that the complexity of SI is regarded as a challenging enterprise even for expert interpreters (Gile, 1995; Christoffels, 2004).

Evidence of that is experts’ failure to render Arabic familiar names like “Zaha Hadid” and “Socrates” into English, which was reportedly related to problems with simultaneity of the task. Furthermore, this study differs from Setton’s (2001) argument, which states that different tasks involved in the process of SI can be applied comfortably.

6.1.2.4 Problems Related to Monitoring the TL Segments

The last category discussed in this study was the problems resulted from monitoring aspects, which were considered the second main source of problems for both groups (see figures 12

and 13). As mentioned earlier, experts relied on the context to grasp the meaning of the SL segment. Therefore, they confirmed problems with different categories such as cultural terms and structures and terms and structures with religious content during the English into Arabic task, and passive voice during the Arabic into English task, but they managed to solve these problems relying on their experience and knowledge to acquire the meaning from the context. On the contrary, most of the novices' problems that were related to monitoring aspects were unanalysed, as they confirmed having problems but they could not explain the reasons behind them. In other words, 43% of the novices' reports were related to unanalysed problems, which agrees with Englund Dimitrova and Tiselius's (2014) study, which reflects that few retrospective verbal problem reports were detected, which represented only one-fifth of interpreting data.

6.1.3 Errors Detected during Subjects' Interpretations of the Rich Points in Both SI Tasks

While the previous section dealt with bottom-up processing based on the subjects' reports, this section investigates top-down processing as it focuses on the product of subjects' renderings. In this context, I will discuss the results of my analysis of subjects' interpretations for the rich points that were inserted in the SL speeches to test their performances with rendering lexical elements (proper names, numbers), syntactic elements (passive voice, collocations), and cultural elements (culture specific terms and structures, terms and structures with religious content).

6.1.3.1 Errors Detected With Rendering the Proper Names in Both SI Tasks

Regarding the errors detected in subjects' interpretations of the proper names, this study shows that experts successfully managed to render the majority of the proper names in both SI tasks (see figures 12 and 13). In other words, adequate renderings of the names counted 95% in both SI tasks. This result illustrates that experts understand the problems that these elements pose during the SI. Therefore, they reportedly focused on these elements during both interpreting tasks, which could consequently reduce the number of inadequate renderings.

Novices also managed to render more than half the SL names in both SI tasks (see figures 12 and 13). However, they provided inadequate renderings, particularly with English names such as “Margaret Thatcher” and “Elizabeth Blackwell”. This result is in line with Gile’s (1995: 173) argument: “proper names are among those potential problems that the interpreter encounters during SI, especially when interpreters are not familiar with these names or lack their phonological characteristics in the TL”. Similarly, this study may give evidence of Meyer’s (2008) finding that the interpreter’s unfamiliarity with the names may result in deviate renderings of the names. In other words, 36% of the novices’ renderings for the names were inadequate, as they mainly resorted to omitting the SL names during the English into Arabic task.

In some cases, novices conveyed part of the name, which seemed due to the cognitive load of the SI that prevented them from recalling the full name. Evidence of that is the interpretation of the Arabic names فاطمة بنت محمد الفهري “Fatima Bintu Mohammed Alfehry” when some of the novices provided “Fatima”, “Fatima Alfehry” and “Fatima Mohammed”. Furthermore, this study shows that the novices resorted to reproducing the SL name. For example, صقراط “Socrates” was rendered inadequately into “Socrat”, which could be a good solution unless it was unclear or vague.

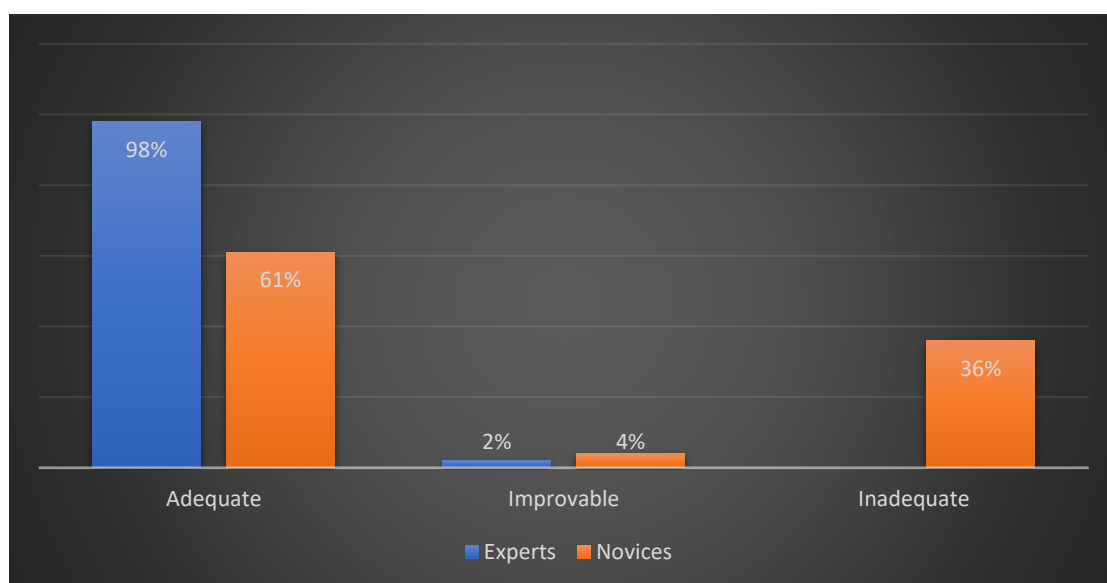


Figure 12: Experts’ and novices’ renderings of names during the English into Arabic SI task.

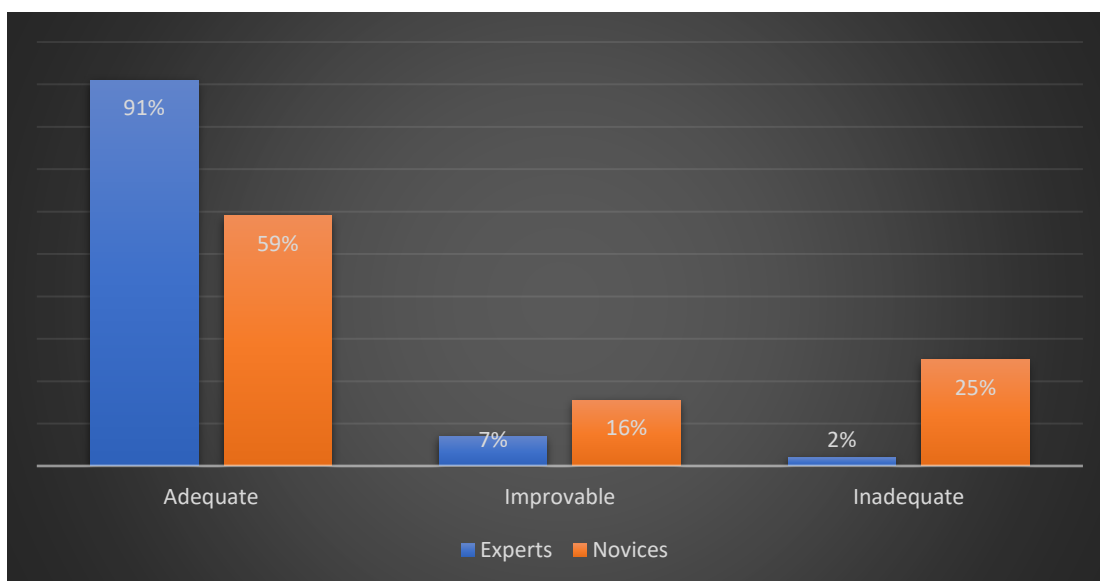


Figure 13: Experts' and novices' renderings of names during the Arabic into English SI task.

6.1.3.2 Errors Detected With Rendering Numbers in Both SI Tasks

With regard to the interpretation of numbers, this study shows that experts were capable of providing adequate renderings for the majority of SL numbers in both SI tasks (see figures 14 and 15), as the average rate of adequate renderings was approximately 87% of the total numbers in both SI tasks. However, experts encountered problems with a few examples, as they reportedly related that to problems with hearing the accurate SL numbers, such as the rendering of P1, 3%, which was rendered into 30%. This is in line with other studies such as Braun and Clarici (1996) and Mezza (2001), which refer to *phonological mistakes* that occur when the interpreter encounters problems with perceiving sound figures in the SL that affect his/her TL equivalent.

This study shows that rendering numbers is considered the most problematic aspect for novice interpreters, as the rate of inadequate renderings was approximately half of the total segments in both SI tasks. This result agrees with many scholars' views. To mention a few: Mackintosh (1983), Mead (2015), and Gile (1995), who considers rendering numbers as a problem trigger that causes problems during SI not only for novices but for experts as well. Moreover, the problems were not limited to conveying the correct numbers but to the neighbouring segments as well, which consequently distort the interpreting process. This result agrees with Englund Dimitrova and Tiselius (2014: 192), who argue that “there could

of course be a carry-over effect, that is, that a problem occurred earlier in the performance, and that the effects of this problem were carried over to the next segment”.

We have seen that novices were able to render easy familiar numbers such as 3% better than numbers with multiple digits like 1606, 2019, 1849, or 877. This supports Jones’s (2002) argument that interpreters are able to deal with one segment of numbers easily as it can be kept in the short-term memory for several seconds, but in rendering two or more segments of numbers, interpreters need assistance other than pure memory in order to produce adequate renderings. The majority of novices’ inadequate renderings were due to omitting the numbers in the TT, which has a negative impact on the interpreting performance.

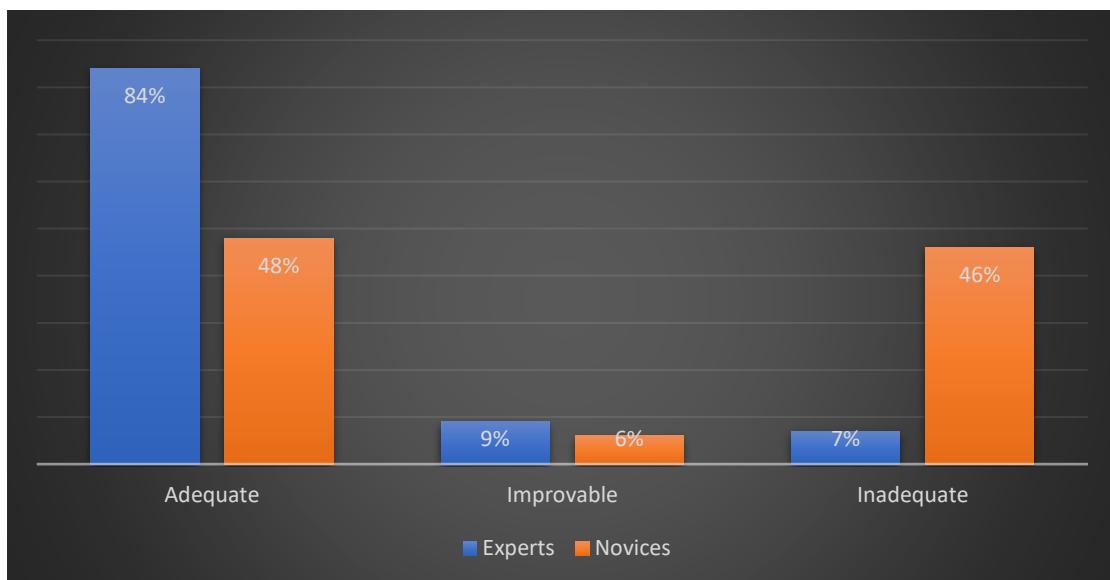


Figure 14: Experts’ and novices’ renderings of numbers during the English into Arabic SI task.

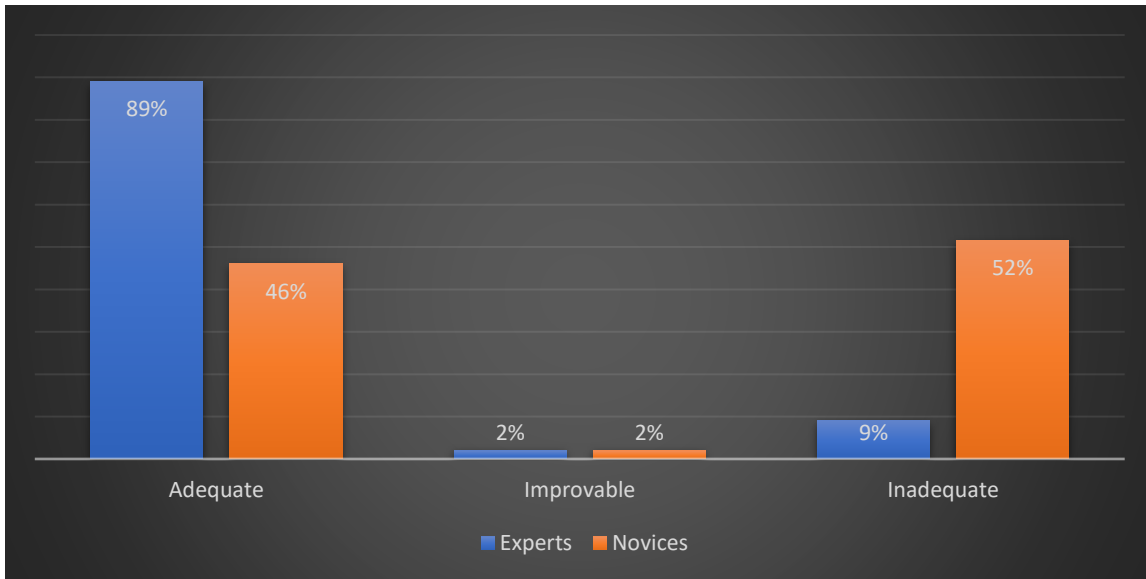


Figure 15: Experts' and novices' renderings of numbers during the Arabic into English SI task.

6.1.3.3 Errors Detected With Rendering the Passive Voice in Both SI Tasks

Interpreting passive voice was an easy task for experts, as expressed in figures 16 and 17, which show that experts successfully managed to render the majority of the ST passive voice in both SI tasks, as 93% of passive voice structures were interpreted adequately. This study shows that experts focused on conveying the meaning or providing the functional equivalent (De Waart and Nida, 1986) of the SL passive voice because they aimed at providing the effect of the utterances which cannot be established in relation to isolated sentences but rather by referring to the value of the utterances within the context.

Conversely, problems with hearing the SL passive structure were the main cause of inadequate renderings, as in the interpretation of P4 for the Arabic passive voice: تم سن قانون القضاء على كافة اشكال العنف ("A law to eliminate all forms of violence against women has been enacted") was rendered into "there was *no* law introduced to terminate all forms of violence against woman". Additionally, 7% of experts' renderings of Arabic passive voice were regarded incomplete and required slight improvements, as in the rendering of P1: بدأت المطالبات تتزايد من قبل المنظمات الدولية ("A law to terminate all forms of violence against women was enacted"), which was rendered into "in the seventies, these women rights calls increased".

In contrast, this study reflects that the novices provided inadequate renderings, particularly during the Arabic into English SI task as it seems that, in contrast to experts, novices paid more attention to the forms of the passive structure as they tried to form the English passive voice using (object + verb in passive + subject), which is in line with Farghal and Al-Shurafat's (1996) argument that novices tend to focus on the SL structure. Figures 18 and 19 show that approximately 30% of the total passive structures were inadequately rendered in both SI tasks. In this context, novices mainly resorted to omitting the SL passive voice from the TT and also in several cases they provided unclear renderings for the SL passive voice, which reportedly related to comprehension problems, as novices were under the cognitive pressure of the SI task that affected their renderings (Gile, 1995). For example, when ST3 rendered "It was deemed unfair to call those people illegal" into الذين لالالالالالال يعني لا يحصلون على الوثائق المطلوبة ("Who are nonono do not get the needed documents"). This example explains the state of hesitation this subject experienced during the rendering of the passive voice, which negatively affected the TT.

This study shows that novices focus on the structure of the SL when rendering the passive voice, which led to providing incomplete renderings, particularly in the English into Arabic SI task as Arabic commonly starts with the verb whereas English tends to begin the sentence with the subject. As evidence, when P4 rendered "Immigration was regarded as help for developing countries" into الهجرة كانت تعتبر وسيلة للبلدان النامية (*Alhijra canat tua 'tabar wasala lil buldan Alnamiya*) (OVC) whereas the form تعتبر الهجرة وسيلة للبلدان النامية (*tu 'tabar Alhijra Wasila Lilbuldan Alnamiya*) is a more appropriate structure in Arabic as it refers to passive voice.

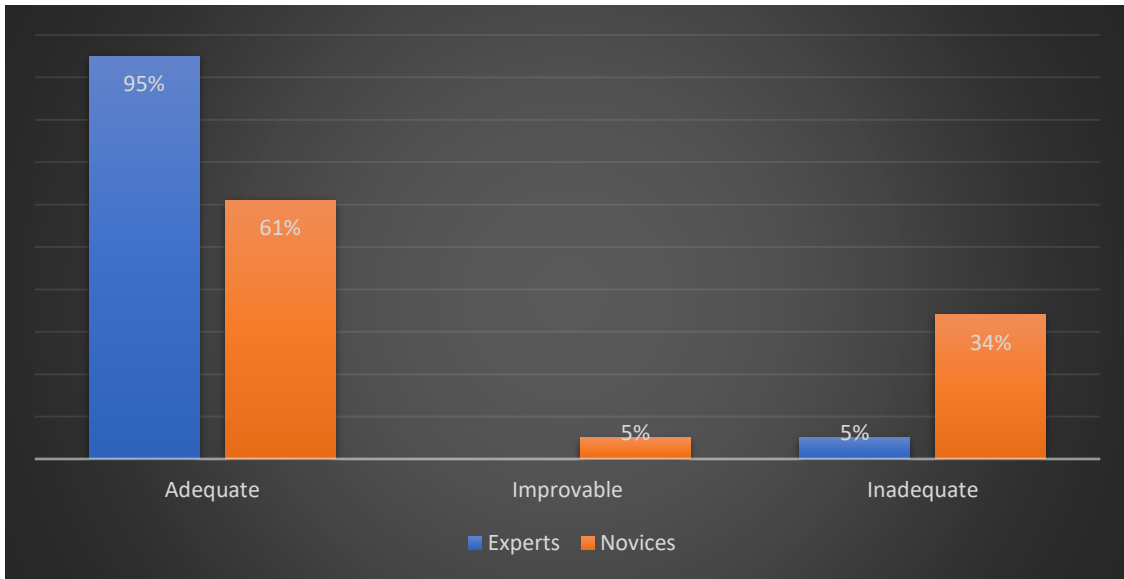


Figure 16: Experts' and novices' renderings of passive voice during the English into Arabic SI task.

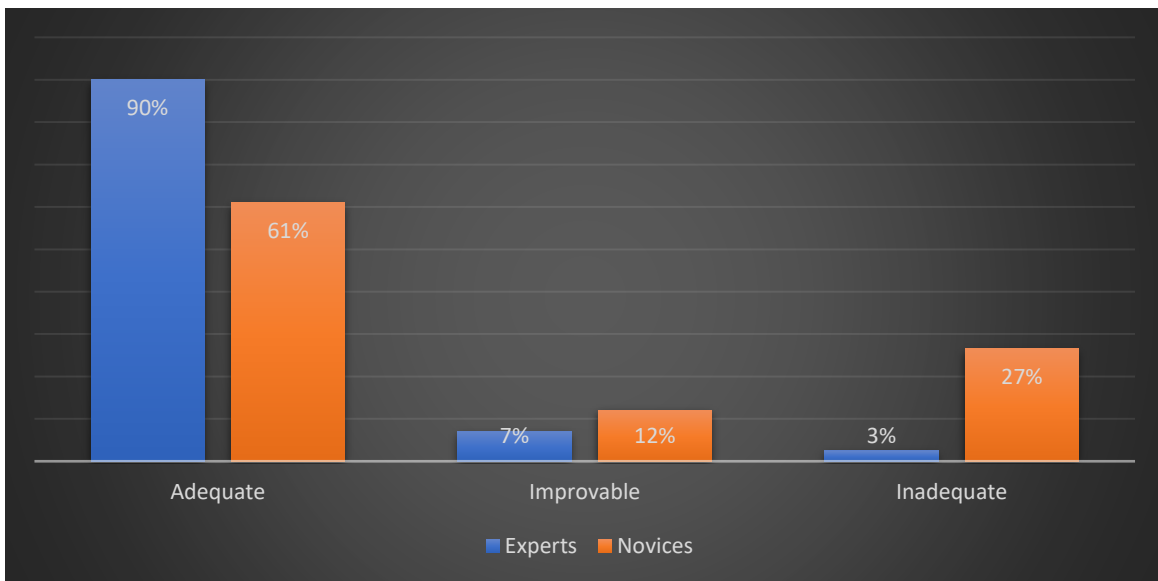


Figure 17: Experts' and novices' renderings of passive voice during the Arabic into English SI task.

6.1.3.4 Errors Detected With Rendering the Collocations in Both SI Tasks

As is clear from figures 18 and 19, the results of analysing subjects' renderings of collocations in both SI tasks which basically relied on providing functional equivalents (De Waard, 1986) show that experts used their knowledge and skills to convey the meaning of the SL collocations rather than seeking to provide precise SL equivalent collocations. Experts successfully rendered 88% of the total collocations in the English into Arabic SI

task, as they demonstrate having a wide range of vocabulary that can be applied to render collocations, particularly when they faced difficulties with providing the accurate equivalents. They used various TT terms to express the meaning of the SL collocations, as in the English collocation “arduous process”, which was rendered into عملية صعبة (“hard process”), عملية متعبة (“cumbersome process”), and عملية شاقة (“arduous process”). This agrees with Baker (2011), who argues that variation in collocations is fairly permissible, and with Al Daqs’s (2011) claim that translators rely on the lexicon of their native language to find appropriate collocations.

Experts tended to use general structures to render Arabic collocations, particularly when they could not provide the accurate collocation. However the meaning was relatively preserved in the TT, as in عند مراجعتنا الى المستشفيات (“when we visit the hospitals”), which was rendered into “when we go to the hospitals”. This is in line with Shakir and Farghal’s (1991) findings that translators may resort to providing a general TL collocation for an SL one. Furthermore, cultural collocations seemed problematic for experts during the Arabic into English SI task, particularly in شرب الحساء في الصباح (“have soup in the morning”), as they were unaware of the cultural difference in the use of this structure because it may not be acceptable in English if it was interpreted literally into “drink soup in the morning”. This result gives evidence to Ghazal (2008) and Baker’s (2011) argument, which considers rendering cultural collocations literally as an inaccurate rendering which may reflect a different SL meaning. Hence, the percentage of “Improvable” renderings in this study was 23% of the total renderings of the collocations in the Arabic into English task. However, the inadequate renderings represented 7% of the total collocations in the English into Arabic SI task when experts resorted to omission.

In contrast, novices rendered approximately half of the collocations adequately in both SI tasks as seen in figures 18 and 19. As compared with experts, novices encountered problems with rendering collocations in both SI tasks. The average rate of inadequate renderings was 27.5% of both SI tasks, which were mainly due to omitting the SL collocations and difficulties with finding accurate equivalents.

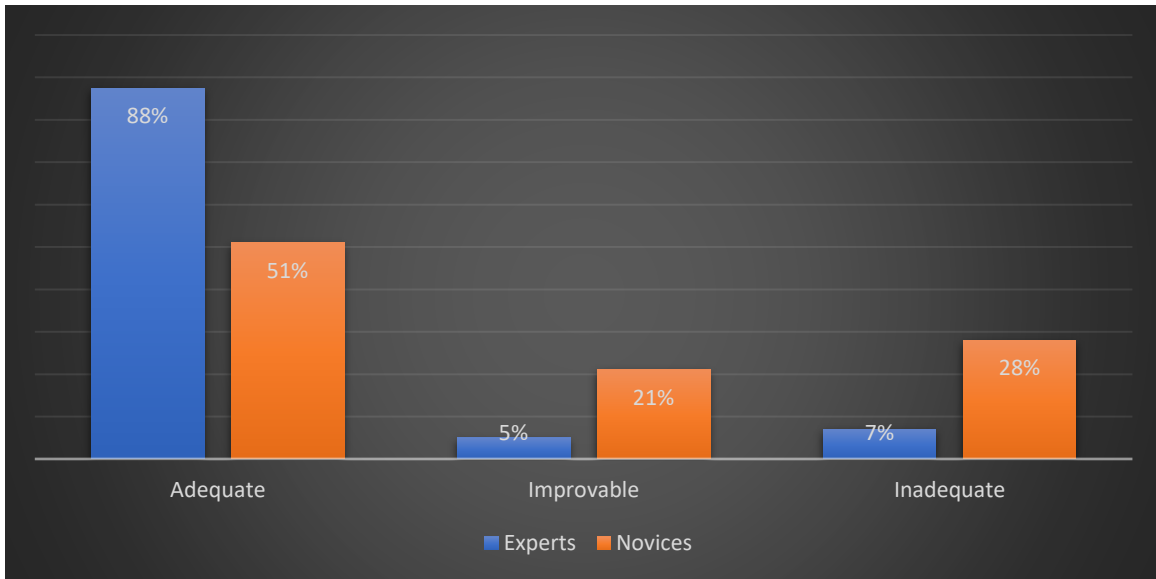


Figure 18: Experts' and novices' renderings of collocations during the English into Arabic SI task.

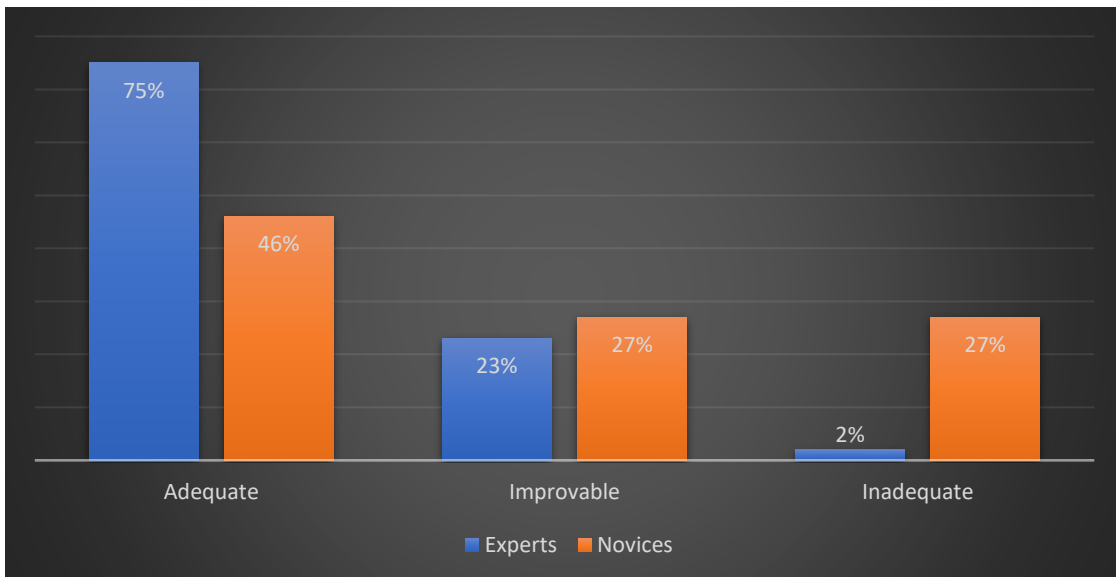


Figure 19: Experts' and novices' renderings of collocations during the Arabic into English SI task.

6.1.3.5 Errors Detected With Rendering the Culture Specific Terms and Structures in Both SI Tasks

This study shows that experts successfully rendered the majority of culture specific terms and structures in both SI tasks (see figures 20 and 21). The average rate of adequate renderings of these elements was approximately 82% of the total rich points that referred to culture specific expressions. Experts tried to bridge the linguistic and cultural gaps in order to meet the TL assumptions and consequently produced adequate cultural equivalents, such

as the rendering of P1 for “immigrants feel at home”, which was rendered into *يقضون ويمضون* (“feel free to do whatever they want”). This result agrees with Kussmaul (1995: 71) argument that “most culture-bound terms can be easily detected due to their association with a specific language and the impossibility to translate them literally because it would distort the meaning”. However, this study shows that 17% of Arabic cultural terms and structures (see figures 22 and 23) were not accurately rendered because they tended to render some of the cultural expressions literally rather than providing the functional meaning, as in the rendering of *نرفع لها القبعة*, which was literally rendered into “raise the hat off”.

In other words, the functional meaning of this structure refers to “show respect to”. This could be due to paying more attention to semantic factors of the SL cultural structures as argued by Bajo et al. (2000), who found that professionals are more concerned with conveying the semantic aspects of the SL. Furthermore, inadequate renderings of cultural terms were detected only during the SI task from English into Arabic, as the experts resorted to omitting the cultural expressions, such as P1 when he omitted “hot dogs” and P5 when she omitted “hell”. In contrast, the percentage of adequate renderings for the novices while rendering the cultural terms and structures was 51% (see figures 20 and 21) in both SI tasks, as they appropriately conveyed the meaning of these elements into the TT.

However, the average rate of 35% of the total cultural terms and structures were inadequately rendered into the TT in both SI tasks when the novices found it difficult to achieve the equivalent or the equivalent effect of the SL cultural expressions. This is in line with several authors’ view, such as Nida and Reyburn (1981) and Baker (1992), which considers cultural problems as among the most effective problems encountered by the novices. This study shows that novices require cultural awareness in both the SL and TL as they encountered problems with rendering unfamiliar cultural expressions such as “melting pot”, “hot dogs”, “hell”, and *يتلج الصدر* (“it is heartily”). On the other hand, familiar expressions were rendered adequately such as “boyfriend and *طبخ الاكلات* (“prepare food”). Moreover, novices resorted to skipping part of the cultural structure, which was considered improvable renderings (average rate of improvable renderings was approximately 17% of the total novices’ renderings in both SI tasks).

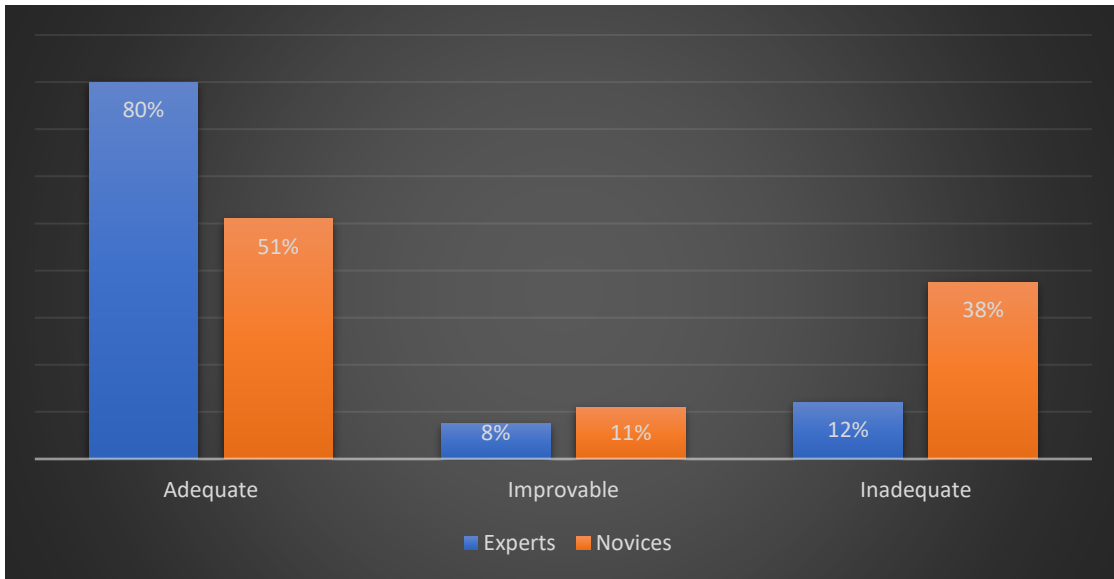


Figure 20: Experts' and novices' renderings of cultural terms and structures during the English into Arabic SI task.

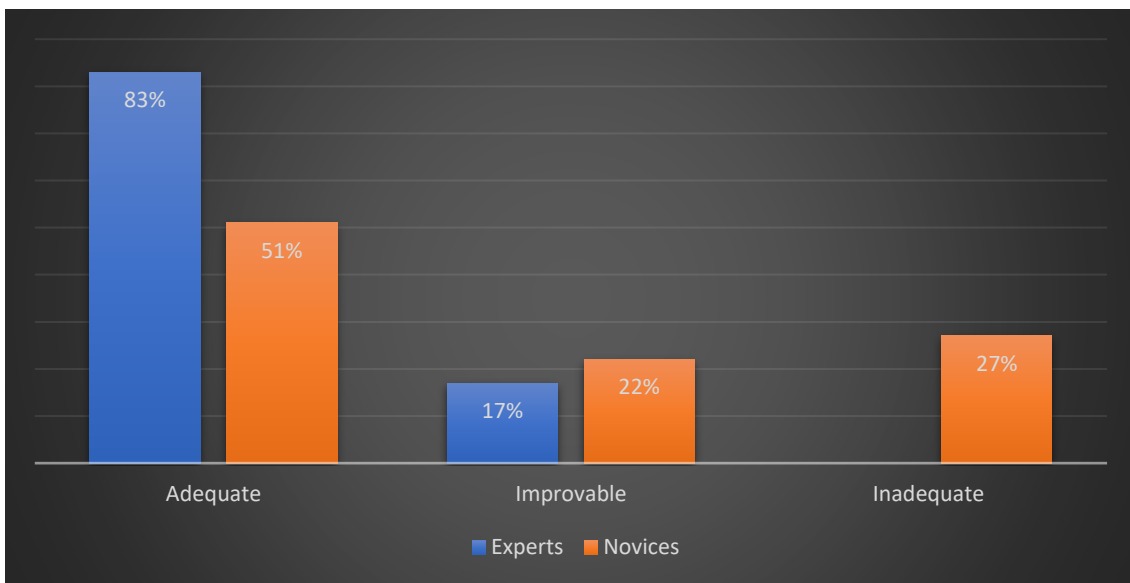


Figure 21: Experts' and novices' renderings of cultural terms and structures during the Arabic into English SI task.

6.1.3.6 Errors Detected With Rendering the Terms and Structures with Religious Content in Both SI Tasks

This study reflects that rendering terms and structures with religious content is considered the main problematic category for the experts during the SI tasks (see figures 22 and 23). In this context, experts successfully rendered approximately 75% of these elements adequately in both SI tasks, but there were about 15% of renderings that required some improvements as experts basically relied on expressing the meaning of these elements, which caused them to provide incomplete renderings. Furthermore, 11% of renderings were inadequate, particularly when the experts resorted to omitting the religious expressions in the TT. This explains that rendering religious expressions and structures is considered problematic even for experienced interpreters, which comes in line with the study performed by Shehabat and Zeidanin (2012) and with Mehawesh and Sadeq's (2015) claim that religious elements include very sensitive genres such as words of God and prophetic sayings which cause problems even for experts.

This study shows that experts encountered problems with rendering the Quranic verse into English, which is considered one of the challenging aspects in translation. This agrees with other studies that highlight the difficulties of rendering the Quranic verses even for experts such as Al-Zou'bi (1999), Abduljaleel and Larkey (2003), Al-Fakhri (2005), Assaf (2005), Abed (2006). However, experts in this study reportedly tried to express the meaning, but conveying the intended meaning of the Quranic verses is regarded as one of the biggest problems that translators face during the translation process.

This study also reflects that interpreting terms and structures with religious content was not an easy task for novices as proved in many studies, such as Al-Zou'bi (1999), Abduljaleel and Larkey (2003), and Abed (2006). Figures 24 and 25 illustrate that novices adequately rendered only 37% of the religious terms and structures during the English into Arabic SI task when they tried to convey the meaning of these elements into the TT, as in the interpretation of ST14 for the English religious structure "Be strong, and let your heart take courage, all you who wait for the LORD!", which was rendered into تشجع وانتظر الرب ("Get the encouragement and wait for the Lord").

The average rate of inadequate renderings for the religious expressions was 40% in both SI tasks, which was mainly due to novices' lack of cultural background of the TL, difficulties with mastering the structures of the SL and TL, and the unavailability of particular references for these items, which is in line with the study of Khammyseh (2015), which comes up with the same results. The nature of these inadequate renderings was mainly related to novices' recourse to omitting the religious terms and structures from the TT. In the same line, novices resorted to reproducing the Quranic verse when they could not select the appropriate equivalent for this verse, which agrees with Al-Zou'bi's (2013) evidence for the validity of applying transliteration to overcome the difficulties during the translation of extracts from the Holy Quran and Muslims' unification. There were remarks of hesitations and pauses during novices' renderings for the religious terms and structures, which reflect the cognitive load that they experienced during the interpretation of these elements.

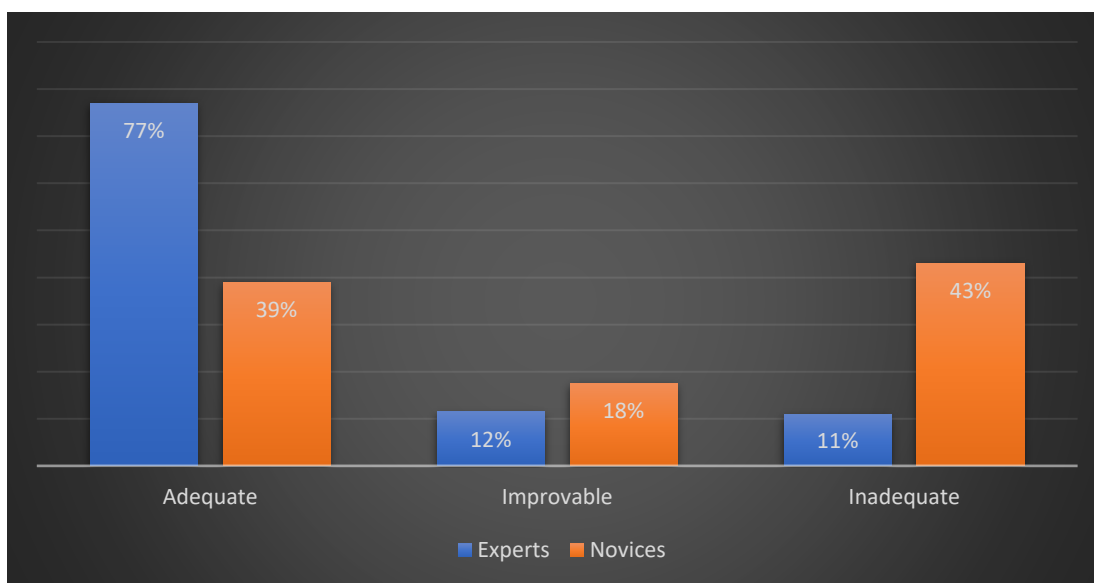


Figure 22: Experts' and novices' renderings of terms and structures with religious content during the English into Arabic SI task.

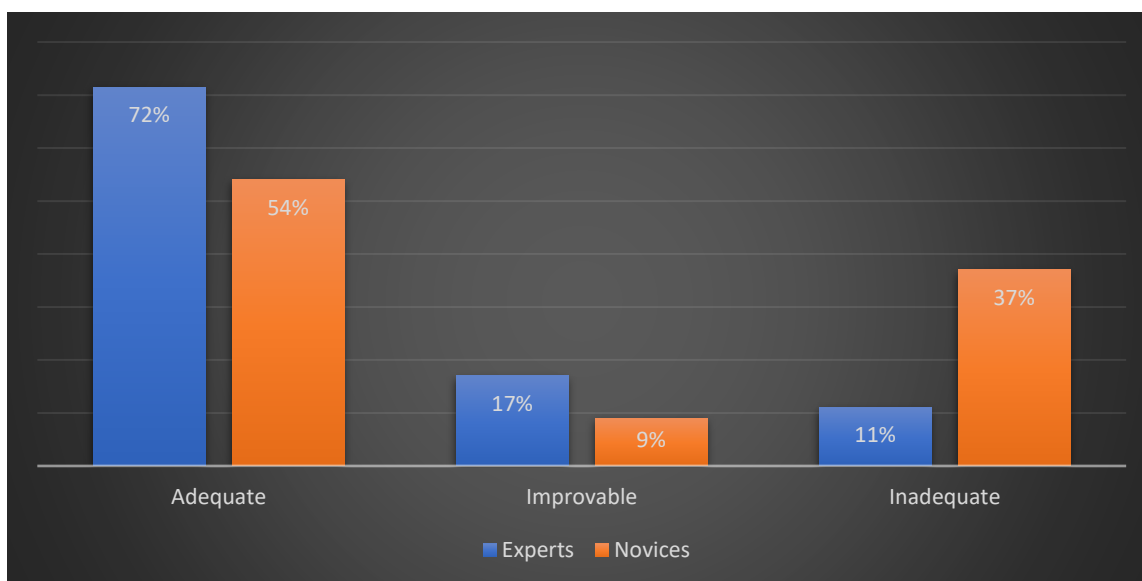


Figure 23: Experts' and novices' renderings of terms and structures with religious content during the Arabic into English SI task.

6.1.4 Subjects' Strategic Behaviour Used to Avoid Inadequate Renderings in Both SI Tasks

In this section, I am triangulating the results of the process analysis (subjects' reports) and product analysis (my analysis of subjects' interpretations for the rich points) to identify the strategies that were applied by both groups to solve or prevent the interpreting problems.

The results of this study show that experts applied different types of strategies that may ease the cognitive burden, improve the pace of delivery, and avoid the accumulation of untranslated information so that their memory and processing capacity will not be overloaded, particularly when they encountered problems with rendering the rich points. This result agrees with the view of various scholars, to mention a few: Ivanova (1999, 2000), Al-Qinai (2002), Mizuno (2005), Gile (2009), and Li (2013). These strategies seemed to occur "automatically" due to experience and training, which leads to providing adequate renderings (see figures 24 and 25). This is in line with the view of Kaiser-Cooke (1994) and Gile (1995) that the use of strategies, due to experience, becomes automatized and does not require efforts to be applied. In other words, strategies such as generalisation (Kalina, 1998), approximation (Kalina, 1998), summarising (Sunnari, 1995), inferencing (Kohn and Kalina,

1996), repair (Kohn and Kalina, 1996), addition, (Liontou, 2011), reproduction (Bartłomiejczyk, 2006), and skipping (Al-Salman and Al-Khanji, 2002) were notably applied by the experts, which have a positive impact on their performance.

On the other hand, novices lacked the experience to apply the required strategies to solve the problems, as their reaction to the problems was limited to omission which, consequently, affected negatively on the interpreters' performance and distorted the interpreting process (see figures 26 and 27).

6.1.4.1 Strategies Applied by the Subjects to Avoid the Inadequate Renderings of Proper Names in Both SI Tasks

During the rendering of proper names in both SI tasks, experts were able to successfully develop strategies that helped them to overcome the problems. In this context, experts reportedly understand the problems that these elements cause during the SI task. Therefore, they rendered the names once uttered by the speaker, which worked to reduce the cognitive load on the memory and helped to process other segments appropriately (Gile, 1995; Jones, 2002). This strategy consequently led to providing adequate renderings for the names, which counted for approximately 95% in both SI tasks (see figures 26 and 27). Furthermore, experts applied the strategy of generalisation when P1 could not recall “San Francisco” and then he provided كاليفورنيا “California” as San Francisco is one of the biggest cities in the state of California. It is in line with Grass's (2006) claim that some names have historical and political effects that cannot be ignored during the interpreting process.

This strategy is also used by experts during the Arabic into English task when P1 and P5 rendered زهاء حديد (“Zaha Hadid”) and صقراط (“Socrates”) respectively into the general structures “Arabic woman” and “Greek philosopher”. It occurs when interpreters cannot find an exact rendition for the SL segment. Hence, they resort to providing a general TL segment. Generalisation together with selection, deletion, and simplification are considered basic components of emergency strategies proposed by Kalina (1998) and Bartłomiejczyk (2006).

Experts in this study added more information to the names in order to clarify and disambiguate these names, such as P5 when she rendered “The Wall Street” into مجلة الورد ستريت “The Wall Street Journal” as she added “Journal” to clarify the meaning, as she states: “I thought the name was missing the word ‘Journal’ so it would be “The Wall Street Journal”.

In contrast, this study illustrates that novices have not been able to apply the required strategies that could help to overcome the problems of rendering the names, as most of the inadequate renderings of the names were due to omission. However, in a few examples during the Arabic into English SI task, the novices applied the strategies of generalisation and skipping to overcome the problems of conveying the names into English. In this context, ST10 rendered فاطمة بنت محمد الفهري (“Fatima Bintu Mohammed Alfehry”) into a general structure, “Arabic woman”, which may relatively convey the SL meaning as “Zaha Hadid” is an Arabic woman as well. Furthermore, in order to reduce the cognitive load that rendering the name causes, ST13, ST16, and ST17 applied the strategy of skipping while rendering the same name, as they respectively provided “Fatima Bintu Mohammed”, “Fatima”, and “Fatima Alfehry”. In this strategy the subjects left part of the ST name out as they faced difficulties with keeping it in their short time memory. This is in line with the study of Al-Salman and Al-Khanji (2002), which states that skipping is one of the achievement strategies that interpreters apply to keep the communication flowing properly.

6.1.4.2 Strategies Applied by the Subjects to Avoid Inadequate Renderings of the Numbers in Both SI Tasks

As with rendering the names, experts successfully applied strategies to convey the numbers adequately into the TL. In this context, they paid more attention to these elements and they started the rendering of these elements once they were uttered by the speaker. Furthermore, other strategies were applied when experts could not provide the accurate number in the TT. In this regard, P3 applied the strategy of repair when this subject realised that he had made a mistake when he rendered 3% into 30%, and he decided to make a correction and said “sorry, 3%”. This strategy was identified in many studies in interpreting such as Kohn and Kalina (1996), Al-Khanji et al. (2000), Petite (2005), Bartłomiejczyk (2006), and Lontou (2011).

Other experts applied the strategy of generalisation when they could not recall the accurate SL number in “the US was colonized by the British in 1606”, which was rendered by P1 and P5 respectively into سابقا (“previously”) and في الماضي (“in the past”). Besides, the rendering of P2 for the SL number in “immigrants in the USA is 89.4 million” into عددا هائلا (“huge number”) relatively refers to the ST number as well. Moreover, the strategy of approximation was applied by experts when P1 rendered “89.4 million” into “89 million”. This strategy is used when the interpreter was not able to retrieve the ideal equivalent of a lexical element in the SL, so he/she provides a near equivalent term, a synonym, or a less precise version of it in the TL. This agrees with the claim made by Braun and Clarici (1996) and Mezza (2001), who argue that the interpreter follows the correct arrangement of the number, but it could be rounded up or down.

On the contrary, novices lack the experience to apply the required strategies when they encounter problems with rendering the numbers during both SI tasks. In the same token, approximately 50% of the renderings were inadequate, as novices mainly resorted to omitting the rich points that refer to numbers. The average rate of omission in both tasks was 30% of the total numbers in both SI tasks. Nevertheless, novices used few strategies that helped them to overcome the problems of rendering numbers such as generalisation and approximation as in the interpretation of ST9 when this subject applied the strategy of generalisation to render the number “25000” as he provided general structure “a lot of women”, and ST7 used the strategy of approximation when he rendered ثلثي (“two thirds”) into “two parts”.

6.1.4.3 Strategies Applied by the Subjects to Avoid Inadequate Renderings of the Passive Voice in Both SI Tasks

This study reflects that the experts managed to use their experience and skills to grasp the meaning of the passive voice from the context and express it in the TT. They sometimes rendered passive voice into passive voice, as in the interpretation of P3, “Tens of thousands of immigrants were allowed to...” سُمِحَ لعشرات الاف المهاجرين ب (“sumiha li asharat alalaf almuhajireen bi”), and passive voice into active, as in the rendering of P3, “US was

colonized by British”, which was rendered into استعمر البريطانيون امريكا (“*istamara albaretaninyun Amrica*”).

Moreover, the strategy of summarising was applied when rendering Arabic passive voice “demands for woman’s rights have been increased by international organizations”, which was interpreted into “these women rights calls increased...”. In this example, the original meaning is rendered into a more general and concise way, as identified in various studies in interpreting, such as Sunnari (1995), Kohn and Kalina (1996), and Bartlomiejczyk (2006).

As with other categories, novices lacked the strategic behaviour when rendering the passive voice, which led them to omitting these structures once they encountered the problems. This result agrees with Barik, (1975) and Gile (1995), who found that novices commit more errors and omissions during the SI task than professionals.

6.1.4.4 Strategies Applied by the Subjects to Avoid Inadequate Renderings of the Collocations in Both SI Tasks

On the one hand, this study shows that experts applied strategies to overcome the problems with rendering collocations such as generalisation, inferencing, approximation, summarising, and addition. These strategies helped the experts to provide the meaning of the SL collocations and overcome the problems of rendering these elements. On the other hand, experts were obliged to render the Arabic collocation لا احب شرب الحساء (“I do not like to have soup in the morning”) literally, which was also identified in various studies in interpreting such as Kohn and Kalina (1996), Kalina (1998), and Al-Salman and Al-Khanji (2002). This example was rendered into “I do not like to drink soup”, which seemingly was related to the effect of the Arabic style that affected the TT, particularly during a demanding task like SI. Hence, subjects could not provide an accurate TL collocation. However, they avoided literal translation when it distorts the meaning of the SL collocations as in “it is not a piece of cake”, which is an idiomatic English collocation that was rendered adequately by experts into انها صعبة جدا (“it is very difficult”) or انها ليست سهلة (“it is not easy”).

On the contrary, novices successfully rendered approximately 50% of the collocations in both SI tasks. However, they encountered problems with rendering another half of these elements, which were clearly due to the novices' recourse to omission and literal translation. Strategically, novices could not apply the required strategies that could overcome the problems and reduce the cognitive load. Nevertheless, a few strategies were applied, particularly during the Arabic into English SI task, which relatively preserved the meaning of the SL collocations. In other words, the strategy of inferencing was applied while rendering the Arabic collocation لا احب شرب الحساء ("I do not like to have soup"), as ST12 reported that he wanted to say "I do not like to drink soup" but it seemed strange so he then said "have soup".

In the same line, novices applied the strategy of generalisation, approximation, and skipping with rendering several examples of collocations. Moreover, they tried to omit part of the collocations when they could not render the whole collocations, as in "detrimental effect", which was rendered into تأثير ("effect"). This has a negative impact on the interpretation, as it was only recommended when there is a semantic repetition in the collocation that would not affect the meaning of the SL collocation. This agrees with the studies of Dickins et al., (2002) and Mohammed (2015), which consider omitting the repeated part of the collocation that does not affect the meaning as a strategic reaction from interpreters. In some cases, the novices resorted to literal translation which affected the meaning of the SL, as they reflected meaningless structures such as "a piece of cake" and "take a risk", which were literally rendered respectively into قطعة كيك ("Qitaat keek") and يأخذ مخاطر ("Yakhuth Makhatir"). This could be due to novices' lack of knowledge and skills in the concept of collocation between the two languages, which agrees with the studies of Mohammed (2015) which focused on the novices' background knowledge in the concept of collocation between the SL and the TL.

6.1.4.5 Strategies Applied by the Subjects to Avoid inadequate Renderings of the Culture Specific Terms and Structures in Both SI Tasks

Regarding the strategies applied with rendering the rich points that refer to culture specific terms and structures in both SI tasks, experts used the strategy of inferencing the meaning

of these elements from the context, as in “bloody documents”, which was rendered into الوثائق الرسمية (“official documents”) which could reflect a different meaning if rendered literally. This strategy was identified in various studies in interpreting such as Kohn and Kalina (1996), Kalina (1998), and Gile (1995).

The strategy of skipping was detected in the rendering of “full-blooded American” when experts skipped “full-blooded” and rendered only “Americans” as they reportedly encountered problems with providing an accurate equivalent for “full-blooded”. Hence, they skipped the unknown part of the structure and rendered the other part. This finding comes in line with other studies in interpreting which identified the strategy of skipping such as Kohn and Kalina, (1996), Al-Salman and Al-Khanji (2002), and Donato (2003).

Experts resorted to the strategy of reproduction when they reproduced the SL cultural expressions “hot dogs” and “melting pot” in the TT. This seems to be due to the difficulties with recalling the ST equivalent. Therefore, they resorted to this option which could be acceptable if the TL audience understands it. This strategy has been suggested by Gile (1995) under reformulation tactics that can be applied by interpreters when encountering problems with rendering an SL term. Therefore, they resort to reproducing the sound as it is heard in the TT. Furthermore, Bartlomiejczyk (2006) detected the strategy of reproduction in his study in SI and directionality.

Another subject applied the strategy of generalisation when rendering the previous cultural expression “hot dogs” when P4 produced the general expression اطعمة (“food”) because she could not provide the accurate equivalent. However, “hot dogs” is a kind of “food” as well. The strategy of addition was applied by experts when P5 added more information to clarify the meaning for the TT audience, such as in “immigrants feel at home”, which was rendered into بلدان المقصد هي منزلهم وموطنهم (“The receiving countries are their homes and homelands”). Experts also used the strategy of approximation when P3 provided a near equivalent for the SL cultural structure ما يتلج الصدر (“We are warmed”) as he provided “it is heartily to see”. The use of these strategies comes in line with other studies in interpreting, such Kalina (1992, 1998), Kohn and Kalina (1996), Al-Salman and Al-Khanji (2002) and Bartlomiejczyk (2006), to mention a few.

Experts properly detected the culture-bound terms that were associated with the SL. Therefore, they avoided rendering them literally as in “bloody documents” and “fully blooded Americans” were respectively rendered into الوثائق الرسمية (“official documents”) and (الامريكين الاصليين). This is in line with the findings of Harvey (2000) and Kussmaul (1995), who highlight the importance to avoid following the SL cultural terms and structures word by word as it reflects different meaning in the TT. Moreover, they were able to provide cultural equivalents for some of the ST cultural expressions, which is considered the best method of rendering culture specific terms. For example, “boyfriend” was rendered into صديق (“friend”).

Strategically, few solutions were adopted by novices during both SI tasks. The novices rendered the SL cultural structure literally, as in the rendering of ST6 for “bloody documents” وثائق الدم (*Wathaiq Aldam*), which reflects a different meaning in the TT, as novices lack the experience to grasp the meaning from the context. Furthermore, the strategy of inferencing was applied by the novices when rendering the English cultural structure “the lion’s share” as they derived the meaning from this structure rather than rendering it literally. They provided تحتل المركز الاول (“is considered number one country”), النصيب الاكبر (“largest share”), and تحتل المنصب الاكبر (“has the largest position”).

6.1.4.6 Strategies Applied by the Subjects to Avoid Inadequate Renderings of the Terms and Structures with Religious Content in Both SI Tasks

Experts’ successful use of strategies with rendering terms and structures with religious content has increased the number of adequate renderings of these elements. In this context, experts used the strategy of inferencing when they tried to grasp the meaning, particularly during rendering of the Quranic verse into English and with other religious structures, such as “seems like heaven”, which was rendered by P1, P2 and P4 respectively into هي حلم (“it is a dream”); امرا صعبا وصعب المنال (“very difficult act”), and تبدو فرصة رائعة (“It seems a wonderful opportunity”). In these renderings, experts avoided literal translation which could affect the meaning of the SL. The use of this strategy has been detected in various studies in interpreting such as Kohn and Kalina (1996), Kalina (1998), Chernov (2004) and Bartlomiejczyk (2006). However, conveying the functional meaning of these elements may

contradict with the claim that translating religious structures should be as accurate and precise as possible and must be in accord with sound belief. Therefore, translators must understand the original ST and transfer it faithfully, accurately, and integrally into the TL, without adding or omitting a single part of the original content (Nida, 1984; Dickins et al., 2002; Elewa, 2014).

Experts applied the strategy of generalisation when they had problems with providing the Arabic equivalent for the English religious title “bishop”, as P2 and P5 produced, respectively: أحدا (“someone”) and أحد رجال الدين (“one of the clergymen”). Other experts such as P5 used an approximate expression for “bishop” that was قسيس (“chaplain”), which is also an English title that is close to the original expression.

In the same line, experts used the strategy of summarising when they faced difficulties with rendering “Be strong, and let your heart take courage, all you who wait for the LORD!” as they provided كونو أقوياء ودع قلبك قوي (“Be strong and let your heart be strong as well”), ان كونوا شجعان تحلو (“To stay brave and wait...God’s help”), وبالقوة والشجاعة...وإذا صبرتم ستجدون (“Be brave and get the power and brevity...if you be patient you will get”), and يجب ان يتحلوا بالشجاعة والقوة (“Immigrants have to get brevity and power”). The strategy of addition was used when there was a need to clarify the information to the TT audience, as in the rendering of P3 for “with the patience of a saint”, which was rendered into يعملون بجد وصبر قديس (“Work **seriously** with a saint’s patience”).

The strategy of skipping was detected when experts rendered صلى الله اذكركم بحديث المصطفى " عليه وسلم " الجنة تحت أقدام الأمهات (“I remind you of the prophet’s ‘peace be upon him’ hadith: ‘the paradise is under the mothers’ feet’”) into “the prophet Mohammed who said that heavens lie at the feet of mothers” when P2, P4, and P5 skipped “peace be upon him” as they were busy with rendering the details of the saying. These strategies have been detected in various studies, such as Al-Khanji et al., (2000), Al-Salman and Al-Khanji (2002), and Kalina (1998).

In order to convey the same effect of the religious expression on the TL audience, experts provided a TL religious equivalent that is understood by the TL audience for the SL religious

expression, as in “with the patience of a *saint*”, which was rendered by P5 into ويعملون بصبر وكأنهم ملائكة (“They work with patience like *angels*”).

In this study, rendering terms and structures with religious content is considered one of the main problematic categories for the novices. This is mainly due to novices’ failure to apply the necessary strategies to solve or prevent the problems. This study shows that the novices, as with other categories, resorted to omission when they encountered problems with providing the accurate equivalents. In other words, omitting the religious terms and structures represented 35% of the total novices’ renderings of these elements, which illustrates novices’ lack of strategic behaviour in dealing with interpreting these elements. This study reflects that the novices lacked religious vocabularies in both the SL and TL, as they encountered problems with religious expressions in both the ST and TT such as “heaven”, “bishop”, “saint”, رحمها الله (“may she rest in peace”). This is in line with Ibrahim’s (2019) claim that the translator of religious expressions should have wide religious vocabularies in both the SL and the TL.

Rendering terms and structures with religious content shows that experts can rely on their experience and skills to cope with the problems of rendering these elements through the use of different strategies such as inferencing, generalisation, and approximation, which were not detected in the novices’ output. Furthermore, novices could not solve the problems and therefore they resorted to omitting these elements from the TT, which has a negative impact on the interpreting process.

To sum up, experts applied different types of strategies that may ease the cognitive burden, improve the pace of delivery, and avoid the accumulation of untranslated information so that their memory and processing capacity will not be overloaded, particularly when they encountered problems with rendering the rich points. This result agrees with the view of various scholars, such as Ivanova (1999, 2000), Al-Qinai (2002), Mizuno (2005), Gile (2009), and Li (2013). These strategies seemed to occur “automatically” due to experience and training which lead to providing adequate renderings (see figures 24 and 25). This is in line with the view of Kaiser-Cooke (1994) and Gile (1995) that the use of strategies, due to experience, becomes automatised and does not require efforts to be applied. Conversely, novices lacked the experience to apply the required strategies to solve the problems as their

reaction to the problems was limited to omission, which consequently affected negatively on their performance and distorted the interpreting process (see figures 26 and 27).

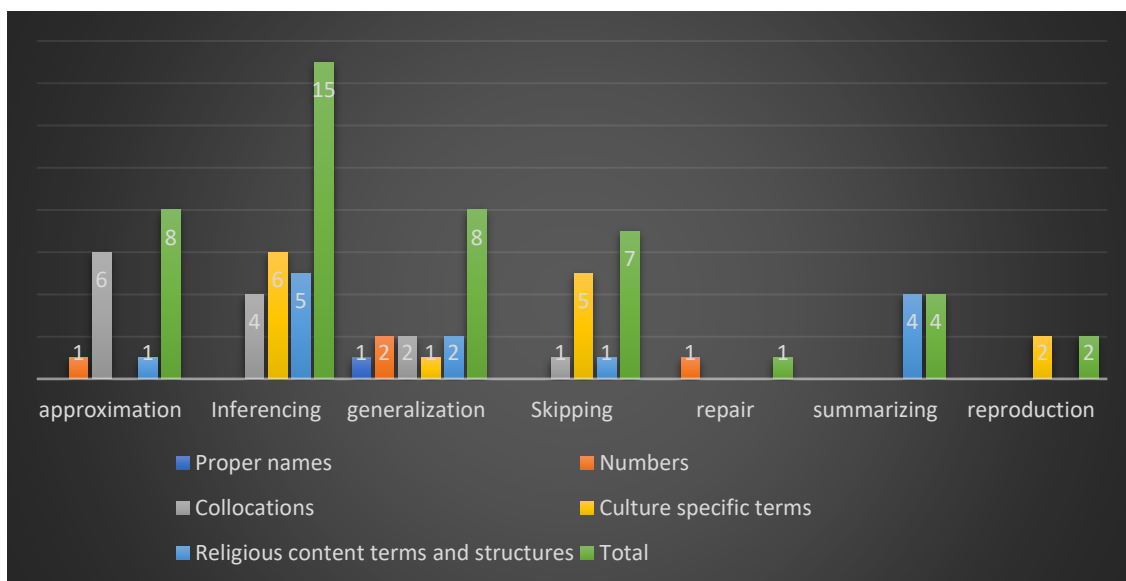


Figure 24: Strategies applied by experts during the interpretation of each category in the English to Arabic SI task.

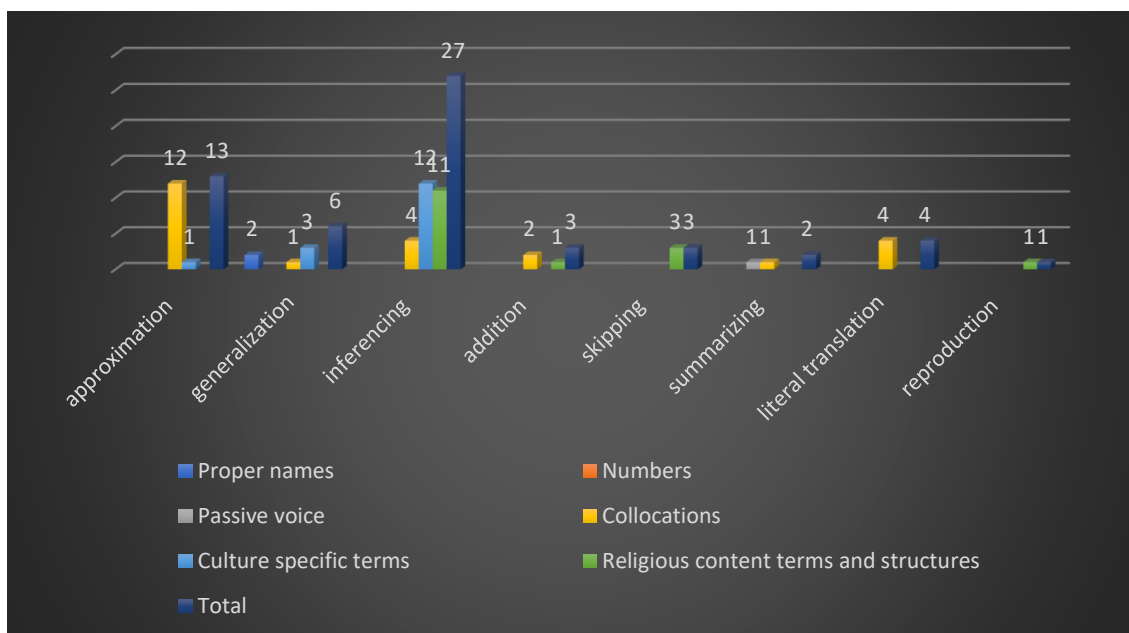


Figure 25: Strategies applied by experts during the Arabic into English SI task.

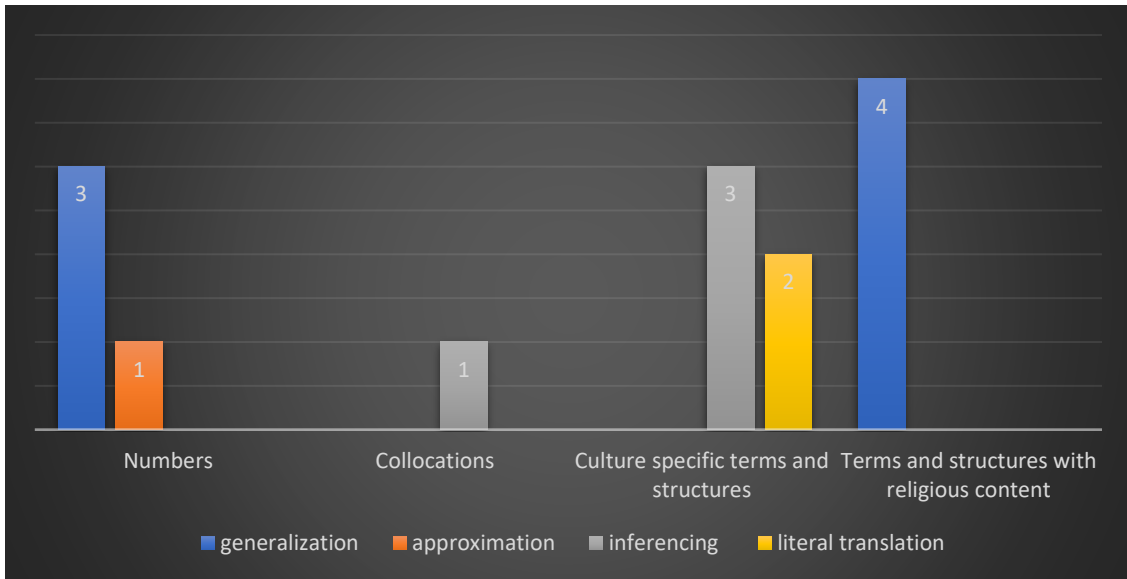


Figure 26: Strategies used by novices during the English into Arabic SI task.

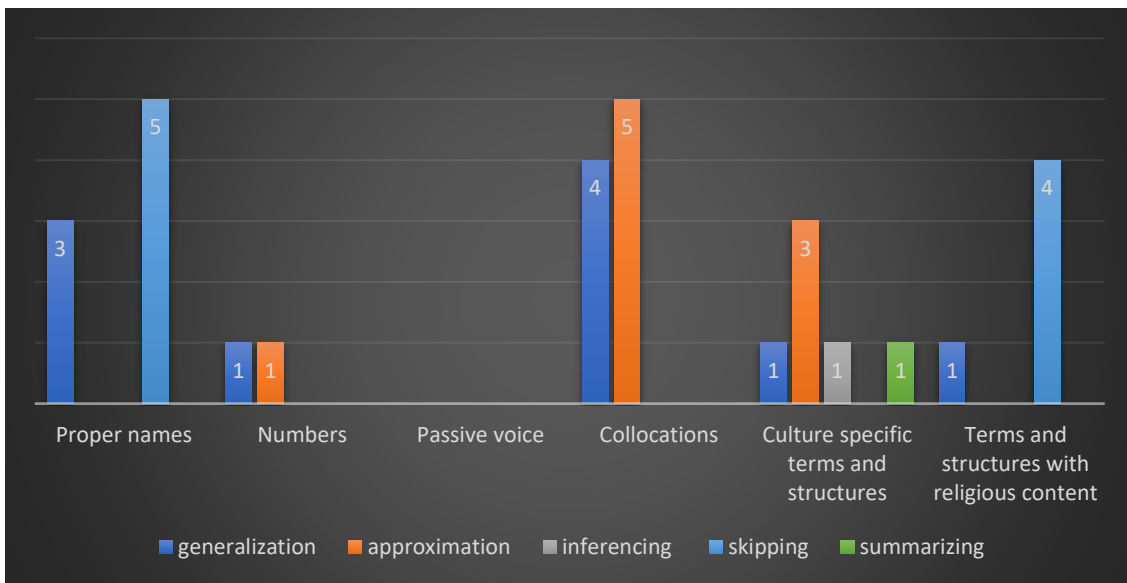


Figure 27: Strategies used by novices during the Arabic into English SI task.

6.1.5 Comparison Between Experts' and Novices' Performance During Both SI Tasks

To compare the results of both groups' performance in both SI tasks, we can realise that expert interpreters demonstrate quantitative as well as qualitative differences from novice interpreters in their performance during the SI tasks. This result provides evidence to the study of Liu et al., (2004: 35) which shows that

“Professional interpreters were able to interpret more of the SL input accurately than student interpreters. More importantly, a qualitative difference was also detected in that professional interpreters were better at selecting the more important idea units over the less important ones when interpreting”.

However, it is in contrast to Dillinger’s (1989) own conclusion that expert interpreters had not acquired any qualitatively different skills particular to SI. This study provides evidence that expert interpreters are more accurate in providing adequate renderings of lexical, syntactic, and cultural elements during SI tasks in the English and Arabic combination. This is consistent with other studies which found that experts are more accurate than novices in distinguishing more essential meaning units from secondary ones in SI, such as Liu (2001) or Liu et al. (2004), as experts, in this study, committed fewer disruptions (errors and omissions) than novices. This reflects similar results of Barik’s (1975) study.

This study shows that experts were fully aware of the problems, as they were able to identify these problems which helped them to apply the required strategies to solve them, such as focusing on the names and numbers during the SI task, which are considered problem triggers elements for interpreters. Moreover, problem recognition as a crucial feature of expertise motivated the experts to solve the problems. This is in line with Kaiser-Cooke’s (1994: 137) definition of problem recognition in which recognising the problem is associated with expertise: “a salient feature of Expertise”.

In the same line, experts’ successful management of the cognitive processes (comprehension, production, simultaneity, monitoring) during the SI task has a positive impact on their performance. This result gives evidence to Liu’s (2009) study which shows that successful management of the cognitive processes reduces the cognitive load and improves the interpreter’s performance. It also agrees with the finding of Li (2013) which reflects that “the interpreter has to allocate his or her available processing capacity strategically in interpreting practice to cope with two sources of constraints: cognitive constraints and language-specific constraints” (Li, 2013: 137). Although experts related some of the problems to comprehension such as recalling the SL segments or hearing and understanding the SL segments, they managed to solve these problems by relying on their

experience to infer the meaning from the context and provide functional equivalents, particularly during syntactic and cultural processing (De Waart and Nida, 1986).

On the contrary, novices were unable to provide adequate renderings because of inadequate inference and abstraction capabilities, underdeveloped holistic processing, and insufficient problem representation. This result is in line with Kaiser-Cooker's (1994) argument that problem representation is an important aspect towards solving the interpreting problems. In this context, this study shows that novices were unaware of most of the problems as they could not clearly identify the problems that affected their renderings and, when they recognised the problems, they experienced a state of unrest and confusion which led them to omit the rich points and distort the interpreting process. This result provides evidence to other studies which suggest the same findings, such as Barik (1975) and Englund Dimitrova and Tiselius (2014). Moreover, novices lacked the experience to coordinate the cognitive processes during the interpreting task as, once they encountered problems, they resorted to hesitation and periods of pauses which consequently affected negatively on their performance. This finding is in line with Kirchoff's (1976) study which identified hesitations and pauses in the performance of novice interpreters when they encountered problems during the interpreting task.

In this study, after identifying the problems, experts managed to apply strategies that take on the nature of cognitive routines which do not require applied reflection but occur "automatically" (Kaiser-Cooke, 1994; Gile, 1995). The use of strategies that helped experts to overcome the problems has led the interpretations to be considered much more meaningful, more coherent, smoother, and more natural. In this context, experts seem to have developed well-practiced strategies in each of the comprehension, translation, and production processes, which is in line with Liu's (2008) finding that shows similar results. The essential difference between the experts and novices in the use of strategies which is clearly identified in this study is considered a crucial part of expertise, as the use of strategies can be seen as a fundamental component of interpreting competence.

This is in line with the findings of several studies, such as Kalina (1994, 2000) and Sunnari (1995), which shows experts' abilities to use the interpreting strategies as compared to

novices. Moreover, the lack of strategic solutions for the interpreting problems in the novices' output led them to provide incoherent renderings that include high variations in speed, hesitations, and periods of pauses, which agrees with the studies of Sunnari (1995) and Kirchhoff (1976/2002).

In this study, experts focused on semantic processing of SL words and structures as claimed in the study of Bajo et al., (2000) which helped the experts to save the time required to follow up the speaker and to avoid a literal interpretation that has a negative impact on interpreting process. This finding agrees with the studies conducted by various scholars such as Barik (1975), McDonald and Carpenter (1981), and Sunnari (1995), which show that experienced interpreters seem to process larger chunks of input and their output was less literal than that of novice interpreters.

On the contrary, novices paid more attention to word-by-word meaning, ignoring the contextual meaning of an utterance, particularly during syntactic and cultural processing. This result is consistent with the findings of other studies such as Barik (1975), McDonald and Carpenter (1981), and Sunnari (1995), which illustrate that novice interpreters are more concerned with the structure of the SL and tend to be more literal than experts.

6.1.6 The Effects of Directionality on the Subjects' Performance in Both SI Tasks

The results of this study shows that experts' renderings have not been affected by the interpreting direction, as they were less sensitive to whether interpreting is from or into their native language. This result is in line with Barik's (1973; 1994) findings which show that professional interpreters encountered the same number of errors and omissions in both interpreting directions. In other words, the percentages of analysing experts' renderings of the categories investigated in this study illustrate that there were no clear differences in the direction of interpretation. However, 60% of the experts reportedly prefer to render from their B language (English) into their native language (Arabic) (see Figure 28). They believe that they master their B language professionally, and they consider the production phase as a crucial aspect in SI. Therefore, they feel more comfortable to work into their native language. This is consistent with the results of various studies which support working from

the B language into interpreters' native language, such as Seleskovitch (1999), Déjean Le Féal (2002), Donovan (2004), and Bartłomiejczyk (2004).

However, this study agrees with the opinion of the 20% of the experts who believe that there were no clear differences in the language direction as other aspects such as subject, style, delivery speed, etc., can determine the difficulties of the task. The results of this study contrast with Al-Salman and Al-Khanji's (2002) study, which applied both questionnaires and the analysis of real conference recordings of professional Arabic/English interpreters and found that interpreters whose native language was Arabic tend to work more efficiently when interpreting from Arabic into English. In terms of strategies, experts applied more strategies during the Arabic into English task than in the other direction, which may reflect that the experts encountered more problems when rendering into their B language. This result is in line with the study performed by Chang and Schallert (2007) which shows that more strategies have been applied while rendering from subjects' native language into their foreign language. Furthermore, experts used more types of strategies like inferencing, generalisation, and approximation, particularly during the Arabic into English task, than in the other direction, which provides evidence for the claim that interpreters use different strategies according to language combinations that have different syntactic systems (Riccardi, 1995; Dawrant, 1996).

In the same line, the majority of the novices believe that rendering from their B language into their native language is the preferable direction of interpreting for them (see Figure 27) because they feel more comfortable producing in their native language (Arabic) than in their B language (English). In other words, 70% of the novices feel comfortable rendering from English into Arabic than the other way around. However, the results of analysing their renderings show that there were no clear differences in the direction of interpreting, as the percentages of measuring the investigated categories were relatively close. Furthermore, 20% of the novices considered the complexity of the ST determines the appropriateness of the rendering rather than the language direction. This agrees with the studies of Barik (1975) and Tommola and Heleva (1998), which show that speeches, which were characterised by complexity in terms of difficult syntactic structures and words of lower frequency, have been found to pose more problems for interpreters.

In terms of strategies, although novices do not apply many strategies during both SI tasks, the number of strategies used during the Arabic into English task is more than the strategies applied during the English into Arabic one.

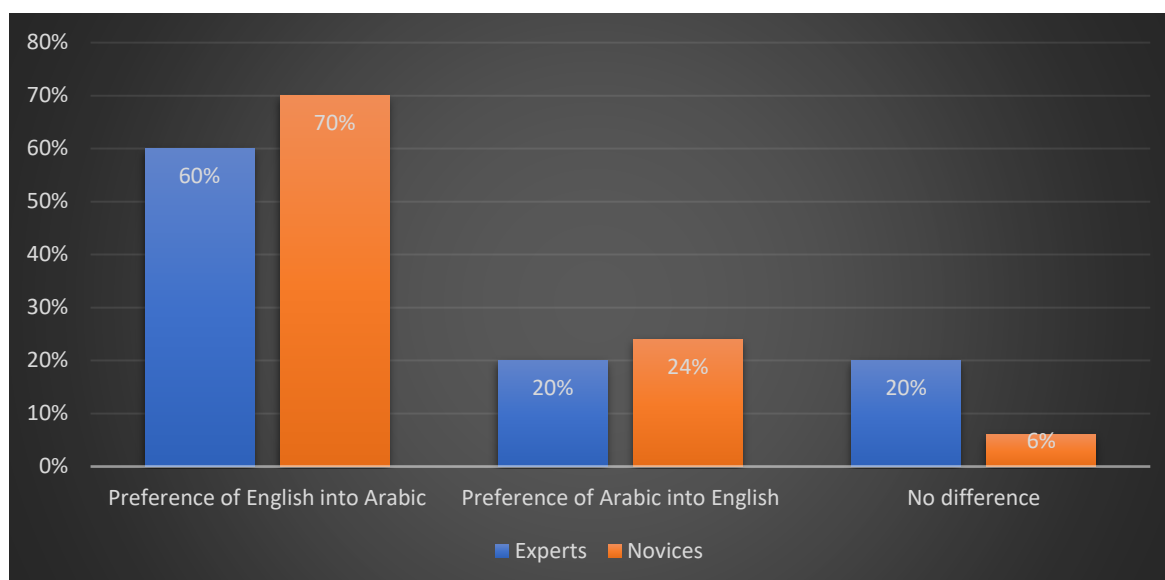


Figure 28: Experts and novices' preferences for the language direction.

6.2 Contributions of this Study to Training in Interpreting

1. This study shows that identifying the problem is the first step towards solving it. This study shows that, on the one hand, once experts recognised the problems, they were able to solve or prevent them through the use of the necessary strategies. On the other hand, novices' unawareness of problems led to providing inadequate renderings and distorting the interpreting process. In this context, training courses should train novices on problem identification exercises and encourage them to report the problems accurately because the novices in this study showed poor reactions towards reporting the problems in their post-interpreting reflections. In other words, unanalysed problems represented approximately 40% of the novices' reports in the Arabic into English SI task. Moreover, adequate reporting of the interpreting problems helps to train the novices on providing successful solutions for these problems.

2. This study shows that successful management of the cognitive processes during the SI task helps to prevent the problems and keeps the interpreting flowing, as we noticed in the performance of experts. In other words, experts showed their determination to solve the problems through the use of necessary strategies without affecting their performance. Conversely, novices could not manage the cognitive processes, which led to an increase in the cognitive load, hesitation and pauses, and ending with omission. This omission not only affected the rich point itself, but the neighbouring segments as well. In this regard, novices need to be trained on using the cognitive processes properly and performing exercises with SI tasks that have potential problems to teach them how to react appropriately when facing problems.

3. This study shows that novice interpreters need to be trained on rendering unfamiliar names, as novices could not cope with the difficulties of conveying these names, particularly during the English into Arabic SI task. Moreover, numbers with more than three digits were problematic for novices during both SI tasks. It is clear that names and numbers are problems triggers that cause problems for interpreters during the SI task. However, training the novices on using these elements in the exercises will help them cope with these problems. Moreover, they can be trained on applying the necessary strategies, as the experts did in this study, such as generalisation and approximation, and start rendering these elements once they are uttered by the speaker. These strategies will reduce the cognitive load that these elements pose, prevent the problems, and improve interpreters' performance.

4. In this study, we noticed that novices did not pay attention to structural differences between English and Arabic, particularly when rendering the English passive voice into Arabic, as the common sentence structure in English is SVO whereas Arabic tends to apply VSO. Moreover, novices' literal rendering of collocations caused them to provide inadequate renderings whereas experts' wide knowledge and skills helped them to infer the meaning of SL collocations from the context and provide adequate renderings. Hence, training courses should include exercises for novices that teach them to take into account the structural differences between English and Arabic during the SI task. Furthermore, these courses should include exercises that

train them to comprehend the meaning of collocations not only from the words themselves but from the context.

5. This study reflects that interpreting cultural elements, particularly terms and structures with religious content, is one of the problematic aspects in SI tasks within the English and Arabic combination. Experts used their knowledge and skills to provide the meaning of these elements rather than following a word-by-word rendering, as rendering cultural elements literally may reflect a different meaning. However, inferring the meaning is considered a hard task for the novices who did not want to jeopardise the interpretation by changing the intended meaning of the religious expressions and structures. Hence, they resorted to either literal interpretation or reproducing the same SL expressions in the TL. In this regard, training courses should include exercises on interpreting the religious structures, particularly rendering verses from the Quran and hadiths from Arabic into English to become familiar with this genre. Moreover, these courses should develop novices' repertoire of religious vocabulary to enable them to provide adequate equivalents in the TL.
6. In this study, novices resorted to omission in various occasions, particularly when they encountered problems with providing the adequate TL equivalents. Hence, training courses should include classes for novices teaching them to avoid omission and pauses, particularly when they encounter a problem during the SI task, as it will affect other segments and distort the interpreting process. However, they need to be trained on how to understand the difference between omitting important information that has negative effects on the TL and skipping redundant and unnecessary information that keeps the interpreting flowing properly.

6.3 Conclusions

This study has applied a mixed method of analysis to investigate the problems that experts and novices encounter with rendering lexical, syntactic, and cultural elements in SI tasks from English into Arabic and vice versa, and the strategies they applied to solve these problems. Furthermore, the cognitive processes that show evidence of the problems were

investigated to identify the problems during both SI tasks. A retrospective method has been applied, as the subjects were asked to fill in questionnaires and answer post-interpreting questions. It comes up with the following findings:

Firstly, expert interpreters were fully aware of the problems they encountered during both SI tasks, which led them to look for solutions that solve or prevent these problems. They professionally identified the cognitive processes that show evidence of the problems and strategically described how they found the necessary solutions for these problems. Novices, however, were unaware of the problems they encountered as they reportedly stated not having problems or they confirmed having the problems but they could not report the causes of these problems and the solutions they applied to solve them.

Secondly, experts show proficiency with rendering lexical elements (proper names and numbers) as they adequately rendered the majority of the rich points that refer to these elements. They understand that these elements are problem triggers. Therefore, they strategically dealt with them by paying more attention to these elements and rendering them once they were uttered by the speaker. Moreover, applying the strategies of generalisation and approximation, particularly with rendering numbers, helped the experts to overcome the problems of providing the accurate numbers. In contrast, lexical elements, particularly rendering numbers, was considered the main problematic category for novices due to the high number of inadequate renderings they provided. Moreover, remarks of hesitations and pauses were clearly identified during novices' performance, which affected other elements in the sentence aside from the names and numbers. Novices were unable to apply the required strategies that could help them overcome the problems as was done by experts, which has a negative effect on their renderings.

Thirdly, experts successfully managed to render syntactic elements (passive voice and collocations) as they relied on their skills and knowledge to grasp the meaning of these elements from the context and apply it in the TT. Hence, the strategy of inferencing was clearly identified when rendering these elements in both SI tasks, which illustrates the effect of experience and training on the performance of interpreters. Experts, thus, do not pay attention to the structural differences between the SL and TT, but they focus on conveying

the meaning and how to express the intended meaning of the SL segment. The main objective of simultaneous interpreter is to provide a functional equivalent rather than follow the SL word-by-word due to the cognitive pressure and the time constraints of the SI task. On the contrary, novices were keen to provide literal translations as they focused on the structure of the SL and lacked the skills and knowledge to infer the meaning and avoid omitting the rich points. Furthermore, they resorted to omission when they faced the difficulties of providing the SL equivalents rather than selecting the necessary strategies as had been applied by the experts.

Fourthly, experts, as with other categories, rendered the cultural elements (culture specific terms and structures and terms and structures with religious content) appropriately, as they were able to infer the meaning of these elements from the context. However, providing functional equivalents for religious terms and structures was not an easy task, as religious elements are used to achieve particular purposes. Moreover, experts used other strategies while rendering these elements such as generalisation, approximation, skipping, and others which have a positive impact on the interpreting process and on their performance as well. Conversely, novices encountered problems with rendering the cultural elements, particularly terms and structures with religious content, as they resorted to omitting these aspects once they encountered the problems. On other occasions, they provided a literal translation which reflects a different meaning, as they were rendering between two culturally different languages. Moreover, novices lacked the experience and skills to deal with these elements, which were clearly noticed from the lack of strategic behaviour that they showed when rendering these elements.

Fifthly, this study offers guidance for researchers to understand how experts of the English and Arabic combination employ particular strategies to solve problems and to know more about the relations between the original speech and the interpreted speech and to reach the communicative objective. Moreover, training the novices on applying the interpreting strategies is an important aspect of interpreter training because the cognitive constraints imposed by the SI task require the use of strategies to solve or avoid problems in comprehension and production.

Sixthly, this study shows that there are no clear differences in language direction for both experts and novices, as the analysis indicated relatively similar results of the both groups during both SI tasks. However, both groups reportedly prefer to work from their B language into their native language than vice versa. Hence, I am inclined to conclude that it may not always be the case that people generally perform the same task (in speaking or in interpreting) less well in a second language than in a first.

Seventhly, this study was limited to investigating the problems with linguistic and extralinguistic elements, and it does not include other aspects that also have an impact on the process of SI. To mention a few that could be of interest including in future research such as fast delivery speed, speaker's accent, stress, and technical problems which also have effects on the interpreter's performance. This study shows that omitting the Rich Points has been widely applied by novices in both SI tasks, which requires further investigation in future studies to verify that interpreters resort to omission as part of their strategic behaviour or they use it when they have no other solutions to solve the interpreting problems.

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Appendix 1

Permission of UAB Ethical Committee to conduct the study



Vicerektorat de Recerca i de Transferència

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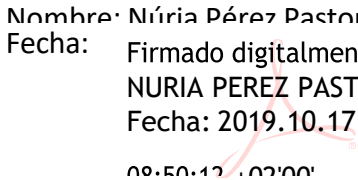
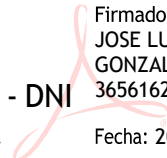
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Comissió d'Ètica en l'Experimentació Animal i Humana (CEEAH)

Universitat Autònoma de
Barcelona 08193 Bellaterra
(Cerdanyola del Vallès)

La Comisión de Ética en la Experimentación Animal y Humana (CEEAH) de la Universitat Autònoma de Barcelona, reunida el día **27-09-2019**, acuerda informar favorablemente el proyecto con número de referencia **CEEAH 4737** y que tiene por título **“COGNITIVE PROCESSES IN SIMULTANEOUS INTERPRETING FROM ENGLISH INTO ARABIC AND FROM ARABIC INTO ENGLISH. A STUDY OF PROBLEMS AND INTERPRETER STRATEGIES”** presentado por **Mohammed Jasim Aal-Hajjahmed**

Elaborado: Nombre: Núria Pérez Pastor Fecha: Firmado digitalmente por NURIA PEREZ PASTOR Fecha: 2019.10.17 	Aprovado: Nombre: José Luis Molina González Cargo: Presidente de la CEEAH de la UAB Fecha: JOSE LUIS MOLINA GONZALEZ - DNI 36561625C  Firmado digitalmente por JOSE LUIS MOLINA GONZALEZ - DNI 36561625C Fecha: 2019.10.17
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Appendix 2

Questionnaires of the Pilot Study

English questionnaire of the pilot study



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A- Initial questionnaire

Participant code: Age: Gender: What is your A (native) language?

- What is your B (first foreign) language? What is your C (second foreign) language?

- Did you have any previous training in interpreting (simultaneous or other/ in the University or elsewhere)? Please give details:

- Do you have working experience in the field of interpreting? Please give details:

B- Interpreting questionnaire

1- Did you encounter problems during interpreting this speech from English into Arabic? If yes, could you tick the problematic element from the list? And what did you do to solve it?

1.	Proper names	Yes	No	What did you do to solve it
2.	Numbers	Yes	No	
3.	Acronyms	Yes	No	
4.	word order	Yes	No	
5.	Difficult expressions	Yes	No	
6.	Grammatical ambiguity	Yes	No	
7.	passive voice	Yes	No	

8.	collocation	Yes	No	
9.	enumeration	Yes	No	
10.	modality	Yes	No	
11.	Cohesive connectors	Yes	No	
12.	colloquial terms	Yes	No	
13.	coherence	Yes	No	
14.	repetition	Yes	No	
15.	Redundancy	Yes	No	
16.	Culture specific terms	Yes	No	
17.	Irony	Yes	No	
18.	Proverbs	Yes	No	
19.	Idioms	Yes	No	
20	Religious terms	Yes	No	

2- What are the most difficult problem(s) you encountered during the task from English into Arabic?

Arabic questionnaire of the pilot study

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أ- الاستبيان العام

رمز المشارك: العمر: الجنس: اللغة الأم: اللغة الثانية: اللغة الثالثة:

هل سبق لك الالتحاق بدورات تدريبية في مجال الترجمة الشفهية (فورية أم غيرها/بالجامعة أم خارجها)؟ إذا كانت الإجابة بنعم يرجى التفصيل

هل لديك خبرة في العمل بمجال الترجمة الفورية؟ إذا كانت الإجابة بنعم يرجى التفصيل

ب- الاستبيان الخاص بالترجمة الفورية

2- هل واجهت مشاكل الجوانب المبينة ادناه اثناء الترجمة الفورية من العربية إلى الانجليزية؟ وماهي الحلول التي قمت

1. أسماء العلم	نعم	لا	ماهي الحلول التي قمت بها
2. الأرقام	نعم	لا	
3. الاختصارات	نعم	لا	
4. مصطلحات صعبة	نعم	لا	
5. اختلاف ترتيب الكلمات	نعم	لا	
6. الغموض النحوي	نعم	لا	
7. المبني للمجهول	نعم	لا	
8. المتلازمات اللفظية	نعم	لا	
9. تعداد الكلمات	نعم	لا	
10. استخدام الأفعال الناقصة	نعم	لا	

	لا	نعم	11. أدوات الربط
	لا	نعم	12. المصطلحات العامية
	لا	نعم	13. التماسك في النص
	لا	نعم	14. التكرار
	لا	نعم	15. تعابير وتراكيب زائدة
	لا	نعم	16. تعابير ثقافية
	لا	نعم	17. مصطلحات والتراكيب التي تثير السخرية
	لا	نعم	18. الأمثال
	لا	نعم	19. اصطلاحات خاصة بثقافة معينة
	لا	نعم	20. المصطلحات الدينية

2- ما هي أكثر مشكلة او المشاكل التي واجهتها أثناء الترجمة الفورية من العربية إلى الانجليزية؟

Appendix 3

Transcriptions of the Original Speeches of the Pilot Study

English Speech

Ladies and gentlemen, my name is Marie David. I am gonna talk about U.S. immigration in the 21st century which I have researched for the last five years. According to the IOM, the United States of America is a country of immigrants and most of its citizens were made up of immigrants. Yes, believe me! Believe me there's a reason that America is known as the great melting pot because we have people from pretty much all over the world here. Of course, the US was colonized by the British in 1606 A.D. We have a lot of British, a lot of Irish, a lot of Italians, a lot of Germans, a lot of Russians, a lot of Chinese.

I don't think I know any place that's more diverse in the world than the city of San Francisco. I remember when I paid a visit to a boyfriend there, I noticed that it was so busy with immigrants. The number of immigrants might exceed the number of original inhabitants.! Can you believe that? Can you believe that? Yes, that is true. I think America has been made very strong and very interesting and very diverse by immigration but, of course the immigration from countries south of the border has been really increasing mainly from Mexico and from Central America. The reason behind that is that the crises in these countries has led people to flee to find a better life. Refugees running away trying to look for safer and better life shouldn't be blamed because they have left their countries and they are looking for jobs which are not even commensurate with their qualifications. Once they arrive to US, they aren't ready to turn back again because they have adapted a new life here. Unfortunately, America has tens of thousands of people who are what we call undocumented immigrants, they used to be called illegal immigrants. Luckily that terminology was recently changed by the government because it's kind of hard to describe a person of being illegal for only not having the damn documents. There are crowds of those undocumented people who usually come from Mexico and Honduras and El Salvador etc .

Let me tell you this, immigration is not a piece of cake because immigrants have to find jobs in order to take care of their families and get used to a new life. The total estimated number of immigrants in USA is 89.4 million people which means they don't have a deleterious effect on the economy. They could do jobs that nobody wants to do and they exert a lot of effort in finding any job that can covers their basic needs. I always tell my friend who is an immigrant that "God helps those who help themselves" as encouragement and also tell him "Be strong, and let your heart take courage, all you who wait for the LORD!"

They would prefer to do jobs which may offer an excellent remuneration package that include health insurance and vacation pay. We don't see a lot of full-blooded Americans picking oranges in San Francisco with pruning shears. We don't see Americans harvesting strawberries in Central

California with pole fruit pickers. We don't see Americans picking the lettuce. We don't see Americans serving in the churches on Sundays. Other people say "well they are taking jobs away from Americans" and they feel pissed off and say they should leave and they must leave as the mayor of San Francisco believes. I personally don't see the point because I notice many Americans doing tough labor, too. They can be cooks; they can be plumbers.

I wanna say that immigrants really contribute very much to our American society regardless of what their legal status is in terms of papers. Now I am very grateful that I don't have to make immigration policy because it's very difficult, frustrating and offensive. I am an immigrant myself, I immigrated to the US when I was a teenager. As a freshman and luckily with me all my personal papers but I am an immigrant nonetheless, and it was very difficult for me to stay here permanently. The issue of immigrants is frequently published in the top headlines of many US newspapers like the New York Times, The Washington Post, The Wall Street etc. By the way, life here is not easy it is difficult and very difficult it could be a hell for some people. It's very expensive. It's very expensive. It's a very arduous process even for me holding LLM. in law and can deal with the system efficiently. I only go to the office once in blue moon when I need something. The question is now, should undocumented immigrants stay or should they go? The former US president Barack Obama during his presidency between 2009-2017 deported tens of thousands of people back to their countries of origin? Imagine that yes imagine it. It's true that some of them may not pay taxes but others think they should do that in order to stay. Immigrants were referred to as a Tsunami by the hero! By the name of Hunter Holman. I also still remember Donald Trump's words describing the immigrants as drug smugglers and rapists and their countries as shithole countries! I don't think building Mr. Trump's miracle wall! is a solution to this dilemma though he lifts the world up and hasn't put it down. From my point of view controlling and patrolling the border is a pretty tough task even after linking advanced cameras to high powered radar. The CBP officer said "they will also explore how to leverage technology to enhance controlling the boarders". You know the borders of Texas and New Mexico and Arizona are in some very desolate, bumpy, and hazardous desert areas. Sadly, myriads of people lose their lives in the desert every year trying to cross into the United States. It could be like a child who runs away from someone throwing a water balloon at him and falls into the pool! Those who make it and enter the border they can sigh a relief as they finally make it. I don't know what the solution is but the bottom line is there should be a solution, there should be a solution. There are also a lot of hard feelings between the Cubans and all the other countries in the Latin America like Mexicans who feel like damn! why they aren't considered refugees. If the Cubans, on one hand, make it to US soil they are automatically granted asylum because they are considered political refugees. On the other hand, the number of Mexican illegal immigrants is expected to reach 1,750,000 by 2020 therefore, it's unsurprising when I enter the bar in Texas over the weekend and find it fully with immigrants drinking wine and dancing.

Yesterday, I read a report issued by USCIS stating that the United States has more immigrants than any other country in the world. Today, more than 40 million people living in the U.S. were born in another country, accounting for about one-fifth of the world's migrants in 2017. The population of immigrants is also very diverse, with just about every country in the world represented among U.S. immigrants. Immigration policy determines the number allowed in and the level of resources devoted to controlling illegal immigration. The future, of course, is not set when deciding on what a future immigration policy should be. It is critically important to know the impact of immigration in recent decades. There is no single approach to answering the question of whether the country has been well served by its immigration policy. Although not explicitly acknowledged, the two most important ways of examining the immigration issue are what might be called the "immigrant-centric" approach and the "national" approach. They are not mutually exclusive, but they are distinct. Finally, the issue of immigrant as far as I am concerned will not solve even if pigs fly!

اسمي اليأس يوسف اسمحوالي أن اسلط الضوء علي موضوع مهم , ألا وهو دور المرأة في المجتمع: فهي الأم والأخت والزوجة والابنة والعممة والخالة. تبذل المرأة جهودا كبيرة في المنزل. تذكرت كيف كانت والدتي تقضي أوقات في المطبخ في طبخ الأكلات التي نحبها وبصراحة فأنتي لا أحب شرب الحساء في الصباح الا من يديها. أتذكر أيضا أنها كانت تستيقظ منذ صلاة الفجر لتبدأ رحلة التنظيف ولم تتوفر في حينها الأجهزة الحديثة كالمكنسة الكهربائية والغسالة الأوتوماتيكية والخ. ومنذ سبعينيات القرن الماضي بدأت المطالبات بحقوق المرأة تتزايد من قبل المنظمات والهيئات الدولية . فقد عقد الاجتماع العالمي الأول عام 1975 في مدينة مكسيكو وفيه تم سن قانون القضاء على كافة أشكال العنف ضد المرأة. تصل نسبة النساء الي 49% من سكان العالم نعم ما يقارب نصف سكان العالم حسب منظمة العمل الدولية ILO يجب علينا أن نتذكر أن المرأة لها ما للرجل في المجتمع فهي نصف المجتمع. وهنا أذكركم بحديث المصطفى " صلعم " الجنة تحت أقدام الأمهات". وفي بالي المثل الذي يقول إذا أردت أن تعرف رقي أمة فانظر إلى نساءها . فهي تقف بجانب زوجها وكما يقال خلف كل رجل عظيم امرأة تقف بجانبه في السراء والضراء. ففي مجال التعليم بدأت المرأة تعمل بالتدريس وتساهم في بناء الأجيال. هل تعلمون من أسس أول وأقدم جامعة في العالم؟ إن أول وأقدم جامعة تم تأسيسها في العالم من قبل امرأة عربية وهي التونسية فاطمة بنت محمد الفهري عام 877 م نعم انها السيدة فاطمة بنت محمد الفهري. تساهم المرأة وبقوة في رفد المؤسسات التربوية والتعليمية بالبحوث والدراسات التي تعمل على رفع مستوى البحث العلمي. والدليل على ذلك حصول الكثير من النساء على الشهادات العليا كالمجستير والدكتوراه في مختلف التخصصات. كما كان للنساء نصيب في براءات الاختراع في العديد من التخصصات العلمية. بالإضافة الى حصد جائزة نوبل للسلام من قبل الفرنسية ماري كوري التي حصلت جائزة نوبل مرتين في مجالين مختلفين. وفازت الباكستانية ملالا يوسفجي اصغر فائزة بجائزة نوبل لمواقفها الداعمة للأطفال. وعلى الصعيد العربي تعتبر اليمينية توكل كرمان أول امرأة عربية تفوز بجائزة نوبل للسلام لإسهاماتها في مجال دعم المرأة في المجتمع. ويجب علي ان اذكر المعمارية العراقية زها حديد "رحمها الله" التي اشتهرت في مجال التصميم المعماري ولها أعمال مهمة على الصعيد العالمي. تم تعيينها سفيرة لمنظمة التربية والثقافة والعلوم التابعة للأمم المتحدة "اليونسكو" في 2010.

وفي مجال السياسة بدأت المرأة تشارك في صنع القرار السياسي. تسنمت العديد من النساء مناصب مهمة في العديد من الدول العظمى حتى وصلن الى رئاسة الدولة او رئاسة الوزراء. واذكر هنا ملكة بريطانيا الملكة اليزابيث ورئيسة الوزراء بريطانيا السابقة ماركريت تاتشر التي سميت بالمرأة الحديدية. يقول سقراط عن المرأة اجمل هدية من الله إلى الإنسانية . وفي مجال الزراعة تمثل النساء غالبية القوى العاملة في البلدان النامية. تشكل المرأة العنصر الأساسي في كافة الأنشطة الزراعية فزراها قادرة على قيادة المحاريث والجرارات. تساهم المرأة بشكل أساسي في عمليات جني المحاصيل الزراعية ويختلف دورها اختلافاً كبيراً بين منطقة وأخرى. وحسب منظمة الأغذية والزراعة "الفاو" فإن نسبة النساء العاملات في الزراعة يمكن ان يصل إلى 50% في أفريقيا. وحتى في مجال القوات المسلحة نجد تزايد دور المرأة بحيث أصبح عدد النساء في بعض الجيوش مقارباً لعدد الرجال. هل تعلمون ان عدد النساء المنخرطات بالجيش الأمريكي في حرب الخليج والحرب على داعش وصل الى 25000 مجندة حسب إحصائية نشرها البنناغون. تساهم النساء في القوات المسلحة في عدة مجالات كالإدارة والصحة والهندسة والخ . تسنم العديد من النساء حقيبة الدفاع لبلدانهن كوزيرة الدفاع الفرنسية السيدة فلورانس بارلي ووزيرة الدفاع البريطانية السيدة بيرني مورونت. أستطيع القول انه لا تنمية اجتماعية دون مساواة كاملة بين الجنسين. نعم لا تنمية دون المساواة بين المرأة والرجل لا تنمية اجتماعية دون القضاء على كافة أشكال التمييز. لا تنمية اجتماعية دون دور فاعل للنساء في إحداث التغيير. وفي الطب ومنذ القدم لعبت المرأة دورا أساسيا في علاج الجرحى أثناء المعارك. ويمكن للجميع ملاحظة ذلك عند زهابنا الى المراكز الصحية او المستشفيات حيث نلاحظ ثلاثة ارباع الكادر هو من العنصر النسوي. مع الأسف ان نسمع بعض الجهلاء ينتقدون المرأة ويصفوها بالضعف.

فهل يجوز هذا ام هو الدهاء الذي وصل إليه البعض؟ وأخيرا أنكركم بأية ذكرها الباري عز وجل " ووصينا الإنسان بوالديه حملته أمه وهنا على وهن" ومن هنا ندرك ان علينا البر بها فتحية للمرأة أينما كانت.

Appendix 4

Taxonomies of the Rich Points in the Pilot Study

Taxonomy of the rich points in the English speech

Semantic Problems	Proper names	Marie David, United States of America, San Francisco, Mexico, Honduras, El Salvador, California, lettuce, San Francisco, New York Times, Washington Post, The Wall Street,
	Numbers	21st, five, 1606, 89.4 million, 1,750,000, 2020, 2019, forty-five years, 2017, 40, one fifth
	Acronyms	U.S, A.D, IOM, etc , USA, LLM, CBP, USCIS
	difficult expressions	Promulgated, commensurate, remuneration, leverage, Myriad, desolate, freshman, dilemma, pruning shears,
Syntactic Problems	Word order	English sentence structure is S+V+O or S+V+C while Arabic sentence structure is normally V+S+O or V+S+O/A as in <i>we have people from all over the world SVO/A</i> . English has auxiliary verbs whereas Arabic doesn't have them as in My name is Marry David
	Passivation	US was colonized by the British, America is known as a great melting pot , America has been made very strong and very interesting and very diverse by immigration, they shouldn't be blamed, terminology was recently changed by the government, it is said that, we aren't considered refugees, the country has been well served by its immigration policy, what might be called the "immigrant-centric
	Collocation	paid a visit, deleterious effect, full-blooded American, exert efforts, picking oranges, arduous process, myriad of people, hard feelings, crowds of people, a piece of cake, tough labors

	Enumeration	<p>very difficult, frustrating and offending.</p> <p>very desolate, bumpy, hazardous desert area,</p>
Pragmatic problems	Repetition	<p>there should be a solution, should be a solution, life here is not easy it is difficult and very difficult it could be a hell for some people, can you believe that</p>
Pragmatic Problems	Modality	<p>crises in these countries would lead people to flee, they may exceed the number of original inhabitants, Refugees can't be blamed, they could do jobs that nobody wants to do, they do jobs which may offer an excellent remuneration, they are taking jobs away from Americans and must leave, I don't have to make immigration, can deal with the system relatively efficiently,</p>
	Irony	<p><i>A child runs away from someone throwing a water balloon at him and falls into the pool.</i></p> <p>The hero! time is to stop the Tsunami!</p> <p>Mr. Trump's miracle wall!</p>
Cultural Problems	Culture specific terms and religious structures	<p>I paid a visit to a boyfriend, America is known as a great melting pot, health insurance and vacation pay, full-blooded American, pay taxes, bar , wine, damn, freshman, shithole</p> <p>“Be strong, and let your heart take courage, all you who wait for the LORD! we don't see Americans serving in the churches on Sundays</p> <p>Pigs might fly!</p>

	Proverbs	God helps those who help themselves, “Be strong, and let your heart take courage, all you who wait for the LORD!
Problems related to improvised oral speech	Redundant expressions and structures	a lot of British, a lot of Irish, a lot of Italian, a lot of German, a lot of Russians, a lot of Chinese. very strong and very interesting and very diverse, very long arduous process,

Taxonomy of the rich points in the Arabic speech

Lexical Problems	Proper Nouns	الياس يوسف, فاطمة بنت محمد الفهري, ماركريت تاتشر, توكل كرمان, ماري كوري, ملالا يوسفجي, زها حديد, مكسيكو, اليزابيث, ماركريت تاتشر.
	Numbers	,2010 ,877 ,25000 ,%49,1975 %50, ثلاثة ارباع
	Acronyms	يونسكو, صلعم, داعش, البن تاغون, م, الخ
	Technical Terms	المكنسة الكهربائية, الغسالة الكهربائية, المحاريث والجرارات,
Syntactic Problems	Word order	English word order is SVO Arabic word order is VSO تحملت المرأة العناء, تبذل المرأة جهودا كبيرة
	Passivation	Arabic frequently uses Active rather than passive i.e وأقدم جامعة في العالم تم تأسيسها, حصد جائزة نوبل للسلام من قبل الفرنسية, لم يسمح للمرأة بالتعلم والذهاب إلى المؤسسات التعليمية, تم تعيينها من قبل,
	Collocation	تسليط الضوء, إدارة المنزل, شرب الحساء, سن قانون, تسنم منصب, السراء والضراء, حصدت جائزة
Pragmatic Problems	Modality	يجب علينا أن نتذكر, ربما تفضل طب الأطفال, وبإمكانها اختيار, يجب ان اذكر, علينا البر بها
	Colloquial expressions and structures	شرب الحساء, لا ادري, الأكلات, تطبخ, بالي
Cultural Problems	Culture specific terms and religious structures	العمة, الخالة, الطبخ, شرب الحساء, تستيقظ منذ صلاة الفجر, اجمل هدية من الله إلى الإنسانية, ذكرها الباري عز وجل في كتابه العزيز " ووصينا الإنسان بوالديه حملته أمه وهنا على وهن " وعندما قال المصطفى " صلعم " الجنة تحت أقدام الأمهات", خير سند له وهنا يتوجب على الجميع البر بها, رحمها الله,

	Proverbs	وكما يقال وراء كل رجل عظيم امرأة ، الأم تصنع الأمة ، إذا أردت أن تعرف رقي أمة فانظر إلى نساءها
Problems related to improvised oral discourse	Redundant expressions and structures	

Appendix 5

Sample of Analysis Sheet in the Pilot Study

	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
	Numbers	Acronym	Unknown Terms	Word order	Grammatical ambiguity	Passive voice	Collocation	Enumeration	Modality	Cohesive Connectors	Colloquial terms	Coherence	Repetition	Redundancy	Cultural terms	Irony	Proverbs	Idioms	Religious terms
	✓	✓		✓	✓	✓	✓												
	✓	✓	✓		✓		✓	✓			✓								✓
	✓	✓	✓	✓	✓	✓	✓			✓		✓				✓			
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2	29	24	20	22	18	24	14	12	7	3	5	13	5	3	8	15	14	10	2
3	97%	80%	66%	73%	60%	88%	46%	40%	23%	10%	16%	43%	16%	10%	26%	30%	27%	33%	6%
4																			
5																			

Appendix 6

Subjects Pre and Post Interpreting Questionnaires



Universitat Autònoma de Barcelona

Initial Questionnaire

Affix ID label	
Date	
Age	
A language	
B language	
Do you have any training in interpreting? Please give details.	
Do you have working experience in the field of interpreting? Please give details.	
Duration of experience in simultaneous interpreting	

POST-INTERPRETING QUESTIONNAIRE

Affix ID label	
Date	

Questions related to interpreting task

Problem	Did you solve it?		How did you solve it?
Did you have a problem with “ speaker’s delivery ”?	Yes	No	
Did you have a problem with “ delivery speech rate ”?	Yes	No	

Did you have a problem with “ long sentences ”?	Yes	No	
Did you have a problem with “ producing Standard Arabic ” ?	Yes	No	
Did you have a problem with interpreting “ Mary David ”?	Yes	No	
Did you have a problem with interpreting “ Egypt ”?	Yes	No	
Did you have a problem with interpreting “ United States ”?	Yes	No	
Did you have a problem with interpreting “ San Francisco ”?	Yes	No	
Did you have a problem with interpreting “ Obama ”?	Yes	No	
Did you have a problem with interpreting “ Mexico ”?	Yes	No	
Did you have a problem with interpreting “ Honduras ”?	Yes	No	
Did you have a problem with interpreting “ New York Times ”?	Yes	No	
Did you have a problem with interpreting “ Washington Post ”?	Yes	No	
Did you have a problem with interpreting “ Wall Street ”?	Yes	No	
Did you have a problem with interpreting “ 220 ”?	Yes	No	
Did you have a problem with interpreting “ 3% ”?	Yes	No	
	Yes	No	

Did you have a problem with interpreting “12”?			
Did you have a problem with interpreting “1606”?	Yes	No	
Did you have a problem with interpreting “89.4”?	Yes	No	
Did you have a problem with interpreting “2009”?	Yes	No	
Did you have a problem with interpreting “2017”?	Yes	No	
Did you have a problem with interpreting “tens of thousands”?	Yes	No	
Did you have a problem with interpreting “myriads of Africans”?	Yes	No	
Did you have a problem with interpreting “take a risk”?	Yes	No	
Did you have a problem with interpreting “paid a visit”?	Yes	No	
Did you have a problem with interpreting “crowds of undocumented people”?	Yes	No	
Did you have a problem with interpreting “piece of cake”?	Yes	No	
Did you have a problem with interpreting “detrimental effect”?	Yes	No	
Did you have a problem with interpreting “exert a lot of efforts”?	Yes	No	
Did you have a problem with interpreting “arduous process”?	Yes	No	
Did you have a problem with interpreting	Yes	No	

“immigration was regarded as a helpful tool to developing countries”?			
Did you have a problem with interpreting “immigration is often considered a problem to many countries?”	Yes	No	
Did you have a problem with interpreting “the US was colonized by the British?”	Yes	No	
Did you have a problem with interpreting “they used to be called illegal immigrants”?	Yes	No	
Did you have a problem with interpreting “it was deemed unfair to call those people illegal”?	Yes	No	
Did you have a problem with interpreting “this terminology has been recently changed by the government”?	Yes	No	
Did you have a problem with interpreting “tens of thousands of people were allowed to live in the States”?	Yes	No	
Did you have a problem with interpreting “The issue of immigrants is frequently addressed in the top headlines”?	Yes	No	
Did you have a problem with interpreting “the issue of immigrants will not be solved”?	Yes	No	
Did you have a problem with interpreting “Ladies and gentlemen”?	Yes	No	
Did you have a problem with interpreting “Hello”?	Yes	No	
Did you have a problem with interpreting “feel at home”?	Yes	No	

Did you have a problem with interpreting “ lion’s share ”?	Yes	No	
Did you have a problem with interpreting “ melting pot ”?	Yes	No	
Did you have a problem with interpreting “ boyfriend ”?	Yes	No	
Did you have a problem with interpreting “ bloody ”?	Yes	No	
Did you have a problem with interpreting “ full-blooded ”?	Yes	No	
Did you have a problem with interpreting “ hell ”?	Yes	No	
Did you have a problem with interpreting “ hot-dogs ”?	Yes	No	
Did you have a problem with interpreting “ or even denounced as a sin. ”?	Yes	No	
Did you have a problem with interpreting “ immigration is a heaven ”?	Yes	No	
Did you have a problem with interpreting “ bishop ”?	Yes	No	
Did you have a problem with interpreting “ Be strong, and let your heart take courage, all you who wait for the LORD ”?	Yes	No	
Did you have a problem with interpreting land of milk and honey ?	Yes	No	
Did you have a problem with interpreting “ Sundays’ mass ”?	Yes	No	

Did you have a problem with interpreting the patience of a saint ?	Yes	No	
Did you have a problem with interpreting seems like heaven ?	Yes	No	

Thanks for your cooperation

الاستبيان

أسئلة عامة

	رمز المشارك
	التاريخ
	ماهي لغتك الام
	ماهي لغتك الثانية
	ماهي لغتك الثالثة ان وجدت
	هل شاركت بدورات تدريبية في مجال الترجمة الفورية؟
	عدد سنوات الخبرة في مجال الترجمة الفورية؟

أسئلة حول اختبار الترجمة الفورية

ماذا فعلت لحل المشكلة؟	هل تمكنت من حل المشكلة؟		المشكلة
	كلا	نعم	هل كانت لديك مشكلة في طريقة عرض النص الأصلي من قبل المتكلم؟
	كلا	نعم	هل كانت لديك مشكلة في سرعة عرض النص الأصلي من قبل المتكلم؟
	كلا	نعم	هل كانت لديك مشكلة في طول جمل النص الأصلي؟
	كلا	نعم	هل كان لديك مشكلة في ترجمة " الياس يوسف"؟
	كلا	نعم	هل كان لديك مشكلة في ترجمة " مكسيكو"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة " فاطمة بنت محمد الفهري"؟
	كلا	نعم	هل كان لديك مشكلة في ترجمة " ماري كوري"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة " توكل كرمان"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة " زها حديد"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة " ماركريت تاتشر"؟

	كلا	نعم	هل كانت لديك مشكلة في ترجمة "سقراط"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "اليزابيث بلاك ويل"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "بريطانيا"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "أفريقيا"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "1975"؟
	كلا	نعم	% هل كانت لديك مشكلة في ترجمة "49"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "877"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "2010"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "2014"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "25000"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "1849"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "ثلثي"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "أسلط الضوء"؟
	كلا	نعم	هل كان لديك مشكلة في ترجمة "تبدل المرأة جهودا كبيرة"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "شرب الحساء"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "السراء والضراء"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "حصد جائزة نوبل"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "صنع القرار"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "وتشريع القوانين"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "عند مراجعتنا الى المستشفيات"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "أخطاء فادحة"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "عقد الاجتماع الاول"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "تم سن قانون القضاء على كافة اشكال العنف"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "بدأت المطالبات بحقوق المرأة تتزايد من قبل المنظمات الدولية"؟

	كلا	نعم	هل كانت لديك مشكلة في ترجمة " تم تأسيس اول وأقدم جامعة في العالم من قبل امرأة عربية "؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "تم تعيينها سفيرة لمنظمة اليونسكو"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "عدت المرأة ... "؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "تم اسناد العديد من المناصب المهمة "؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "التي لقبت بالمرأة الحديدية "؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "الخالة"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "طبخ الاكلات"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة " الا من يديها "؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "وقد استوفقتني المثل "؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "ما يثلج الصدر"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "ترفع لها القبعة "؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "السلام عليكم ورحمة الله وبركاته "؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "صلاة الفجر "؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "حديث المصطفى "صلى الله عليه وسلم"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "الجنة تحت اقدام الامهات"؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "رحمها الله "؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "الباري "؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "اية ذكرها الباري عز وجل "؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة " ووصينا الانسان بوالديه حملته امه وهنا على وهن "؟
	كلا	نعم	هل كانت لديك مشكلة في ترجمة "علينا البر بها "؟

شكرا لتعاونكم معنا في انجاز هذه الدراسة

Appendix 7

Post Interpreting Questions

Please, answer to the following questions ORALLY through recording. Read each section and question aloud before you answer it.

A- Feelings

- 1- How did you feel when you encountered a problem during the interpreting task?
- 2- What came to your mind first when you heard the title of the interpreting discourse?
- 3- Did you encounter stress during the interpreting task? when?
- 4- Were you aware of the problems that you have faced during the interpreting task?
- 5- Were you more comfortable in interpreting from your foreign language into your native language? or vice versa?

B- Problems

- 1- Did you encounter a problem with interpreting proper nouns? Do you know why?
- 2- Did you encounter a problem with interpreting numbers? Do you know why?
- 3- Did you encounter a problem with interpreting passive voice? Do you know why?
- 4- Did you encounter a problem with interpreting collocation? Do you know why?
- 5- Did you encounter a problem with interpreting culture specific terms? Do you know why?
- 6- Did you encounter a problem with interpreting religious structures? Do you know why?
- 7- Can you tell me what were the main problems that you have encountered during the interpreting task?

C- Strategies

- 1- What did you do when you encountered a problem with interpreting proper nouns? Do you think you solve it?
- 2- What did you do when you encountered a problem with interpreting numbers? Do you think you solve it?
- 3- What did you do when you encountered a problem with interpreting passive voice? Do you think you solve it?
- 4- What did you do when you encountered a problem with interpreting collocation? Do you think you solve it?

- 5- What did you do when you encountered a problem with interpreting culture specific terms? Do you think you solve it?
- 6- What did you do when you encountered a problem with interpreting religious structures? Do you think you solve it?
- 7- Did you resort to colloquial language during the interpreting task? do you know why?

الرجاء الإجابة على الأسئلة التالية شفويا بواسطة التسجيل مع ذكر السؤال ورقمه

أ- الشعور

- 1- ما هو الشعور الذي يبتابك عندما تواجه مشكلة في عملية الترجمة الفورية؟
- 2- ماذا خطر على بالك عندما سمعت بعنوان النص المراد ترجمته الى الإنكليزية؟
- 3- هل مررت بحالات توتر اثناء الترجمة؟ ومتى بالضبط؟
- 4- هل كنت على دراية بالمشاكل التي واجهتها اثناء الترجمة؟
- 5- هل تفضل اتجاه الترجمة من لغتك الام (العربية) الى لغتك الثانية (الانكليزية) ؟ ام العكس؟

ب- مشاكل الترجمة

- 1- هل واجهت مشكلة بترجمة أسماء العلم؟ هل تعلم لماذا؟
- 2- هل واجهت مشكلة بترجمة الاعداد؟ هل تعلم لماذا؟
- 3- هل واجهت مشكلة بترجمة المتلازمات اللفظية (Collocations) ؟ هل تعلم لماذا؟
- 4- هل واجهت مشكلة بترجمة ألمبني للمجهول؟ هل تعلم لماذا؟
- 5- هل واجهت مشكلة بترجمة المصطلحات الثقافية الخاصة بالعربية؟ هل تعلم لماذا؟
- 6- هل واجهت مشكلة بترجمة المصطلحات والتراكيب الدينية؟ هل تعلم لماذا؟
- 7- ماهي أكثر المشاكل التي واجهتها اثناء الترجمة؟

ج- الإستراتيجيات

- 1- ماذا فعلت عندما واجهت مشكلة في ترجمة أسماء العلم؟ هل تمكنت من حلها؟
- 2- ماذا فعلت عندما واجهت مشكلة في ترجمة الاعداد؟ هل تمكنت من حلها؟
- 3- ماذا فعلت عندما واجهت مشكلة في ترجمة تراكيب المبني للمجهول؟ هل تمكنت من حلها؟
- 4- ماذا فعلت عندما واجهت مشكلة في ترجمة المتلازمات اللفظية (Collocations) ؟ هل تمكنت من حلها؟
- 5- ماذا فعلت عندما واجهت مشكلة في ترجمة المصطلحات الثقافية الخاصة بالعربية؟ هل تمكنت من حلها؟
- 6- ماذا فعلت عندما واجهت مشكلة في ترجمة التعابير والتراكيب الدينية؟ هل تمكنت من حلها؟
- 7- هل لجأت الى اللغة العامية بدلا من اللغة الفصحى اثناء الترجمة؟ هل تعلم لماذا؟

Appendix 8

Guidance of how to conduct the experiment



Universitat Autònoma
de Barcelona

Project Title	“Cognitive Processes in Simultaneous Interpreting from English into Arabic and from Arabic into English: A Study of Problems and Interpreters’ Strategies”
Researcher	Mohammed Aal-Hajiahmed
Directors	Dr. Marta Arumí Ribas and Dr. Anna Gil-Bardajó

You are invited to participate in a research study which **aims to develop the performance of interpreters** and suggest the best approaches and methods of conference interpreting.

Please note the following:

- It is estimated that completion of all experiment tasks should take about 90 minutes of the participating interpreter’s time.
- Participants can look at the source discourse while filling post interpreting questionnaire.
- In order to achieve its objectives, this experiment is one-time attempt.
- The identity of the participant will remain confidential and only the members of the research team will have access to the project data.
- Participants will obtain a certificate of participation from the UAB, Spain and if possible, the results of the analysis of this study.

The participants in this experiment will perform the following tasks:

DAY 1 (English into Arabic)

	Activity	Estimated Time
1	Fill in an initial questionnaire of general questions such as age, gender, languages, training, experience.	5 minutes
2	Conduct a simultaneous interpreting task with audio recording.	10 minutes
3	Answer interview questions with audio recording.	15 minutes
4	Fill in a post-interpreting questionnaire regarding the interpreting task.	15 minutes

DAY 2 (Arabic into English)

	Activity	Estimated Time
1	Fill in an initial questionnaire of general questions such as age, gender, languages, training, experience.	5 minutes
2	Conduct a simultaneous interpreting task with audio recording.	10 minutes
3	Answer interview questions with audio recording.	15 minutes
4	Fill in a post-interpreting questionnaire regarding the interpreting task.	15 minutes

Shall you have any questions about the study, you can contact the researcher using the Information provided below.

Mohammed Al-Hajjahmed, PhD Researcher
Faculty of Translation and Interpretation UAB,
Spain. 0034602127424

Mjasim.1977@gmail.com

Many thanks in advance for your kind consideration

Appendix 9

Examples of Novices' Renderings in the Pilot Study during English into Arabic task

Examples of novices' renderings of English proper names into Arabic

Subject	Source Text	Target Text	Back Translation
PEX10	My name is Marie David	اسمي هو اليب ديفي	My name is Alep Davee
PCT15	Immigrate to United States	يغادرون الى اليوناتيد ستيت	Depart to United States (reproducing the SL names)

Examples of novices' renderings of English numbers into Arabic

Subject	Source Text	Target Text	Back Translation
PCT4	more than 40 million people living in the U.S.	يوجد واحد مليون مهاجر	There is one million
PCT6	The total immigrants in USA is 89.4 million	يبلغ عدد المهاجرين في اميركا 85 مليون	The total number of immigrants in America is 85 million

Examples of novices' renderings of English Acronyms into Arabic

Subject	Source Text	Target Text	Back Translation
PCT6	a report issued by USCIS	وذكرت وكالة الأمم المتحدة	UN agency said
PEX2	even for me holding LLM. in law	وحتى لي وانا احمل شهادة عليا في القانون	Even for me as I have a higher degree in law

Examples of novices' renderings regarding word order differences

Subject	Source Text	Target Text	Back Translation
---------	-------------	-------------	------------------

PCT9	the United States of America is a country of immigrants	أمريكا يطلق عليها بلد المهاجرين	America was called a country of immigrants
PEX8	refugees running away trying to look for safer and better life	اللاجئين يهربون لبيحثوا عن حياة افضل وامن	The refugees flee to seek for better and more secure life.

Examples of novices' renderings regarding grammatically ambiguous structures

Subject	Source Text	Target Text	Back Translation
PCT4	Now I am very grateful that I don't have to make immigration policy	الان انا شاكرة جدا لأنني لن أقوم بسياسة الهجرة	Now I am grateful because I will not follow the immigration policy
PCT9	I always tell my friend who is an immigrant that "God helps those who help themselves"	حيث أقول لأصدقائي ان يجب ان أتمنى من الله ان يساعدهم	I tell my friends to ask The Lord to help them

Examples of novices' renderings regarding the interpretation of passive voice

Subject	Source Text	Target Text	Back Translation
PCT1	America has been made very strong by immigration	صُنعت أمريكا بقوة	America was made strongly
PCT6	terminology was recently changed by the government	وهذا الاسم غيرهه	This name was changed

Examples of novices' renderings regarding the interpretation of collocations

Subject	Source Text	Target Text	Back Translation
PCT1	exert a lot of efforts	ينفق الجهد	spend efforts
PEX1	Full-blooded Americans	الدماء الكثيرة في اميركا	a lot of blood in America

Examples of novices' renderings regarding the interpretation of cohesive connectors

Subject	Source Text	Target Text	Back Translation
PCT15	Unfortunately , America has tens of thousands of ...	ولكن امريكا فيها	But America has...
PEX5	which I have researched for	و بحثت عنها	And I researched

Examples of novices' renderings regarding the interpretation of colloquial terms

Subject	Source Text	Target Text	Back Translation
PCT15	I am gonna talk about U.S. immigration	انا راح اتكلم عن الهجرة	I will talk about immigration
PCT17	I wanna say that immigrants really contribute	انا اقول ان المهاجرين يساهمون	I say that the immigrants contribute.

Examples of novices' renderings regarding the interpretation of repeated structures

Subject	Source Text	Target Text	Back Translation
PCT5	Yes, believe me! Believe me there's a reason	صدقوني فهناك سبب	Believe me there should be a reason
PEX1	Can you believe that? Can you believe that? Yes, that is true	هل تصدقون ذلك نعم هذه حقيقة	Do you believe that. Yes, this is true.

Examples of novices' renderings regarding the interpretation of culture specific terms and structures

Subject	Source Text	Target Text	Back Translation
PEX17	when I enter the bar in Texas	عندما ادخل الى الحديقة	When I enter the garden
PCT6	America is known as a great melting pot	امريكا تعتبر دولة عظمى	America is a great state

Example of novices' rendering regarding the interpretation of irony

Subject	Source Text	Target Text	Back Translation
PCT3	Immigrants were referred to as a Tsunami by the hero! By the name of Hunter Holmn	ان المهاجرين قد تضرروا من موجة التسونامي	The immigrants have been affected by the Tsunami

Example of novices' rendering regarding the interpretation of proverbs

Subject	Source Text	Target Text	Back Translation
PCT4		اخبر اصدقائي ان الله سيساعدهم في العيش	I tell my friends that God will help them in their life
PCT7	God helps those who help themselves	واخبر صديقا مهاجرا ان الله سيساعده اوه اوه ...	And tell an immigrant friend that God will help him ah ah...

Examples of novices' rendering regarding the interpretation of idioms

Subject	Source Text	Target Text	Back Translation
PCT6		حتى تطير البقار	and if the cows fly
PEX3	If pigs might fly	لو حجة البقرة على قرونها	if the cow walks on her horns to pilgrimage
PEX21		حتى لو البطاريق طارت	Even if the penguins fly

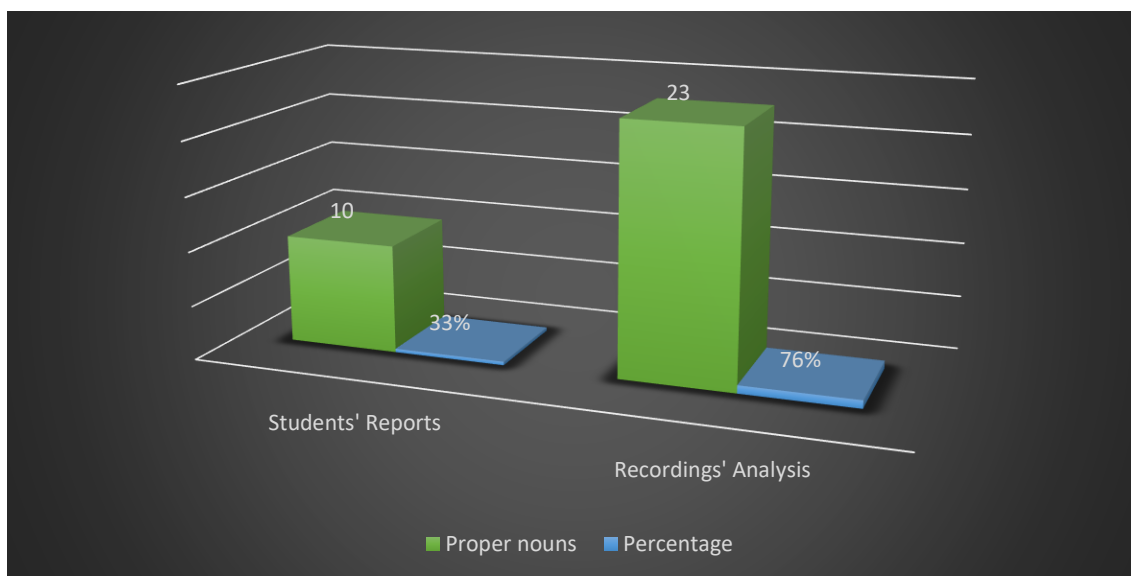
Examples of novices' rendering regarding the interpretation of terms and structures with religious content

Subject	Source Text	Target Text	Back Translation
PCT14	"Be strong, and let your heart take courage, all you who wait for the LORD!"	ابقى قويا وتشجع وادعوا لربك	Stay strong, take the courage, and ask your God
PEX16	We don't see Americans serving in the churches on Sundays	لا نرى الامريكان يعاونون اه احد	We do not see Americans suffering ah ah ...on Sunday

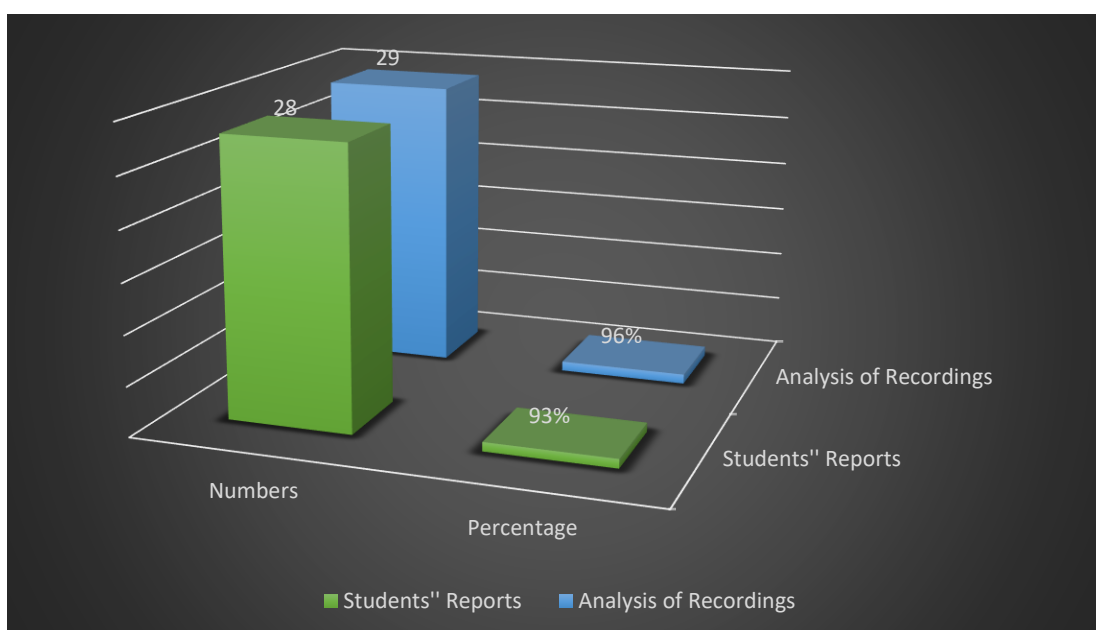
Appendix 10

Figures that show the differences in the analyses of novices' renderings and their reports during English into Arabic task of the pilot study.

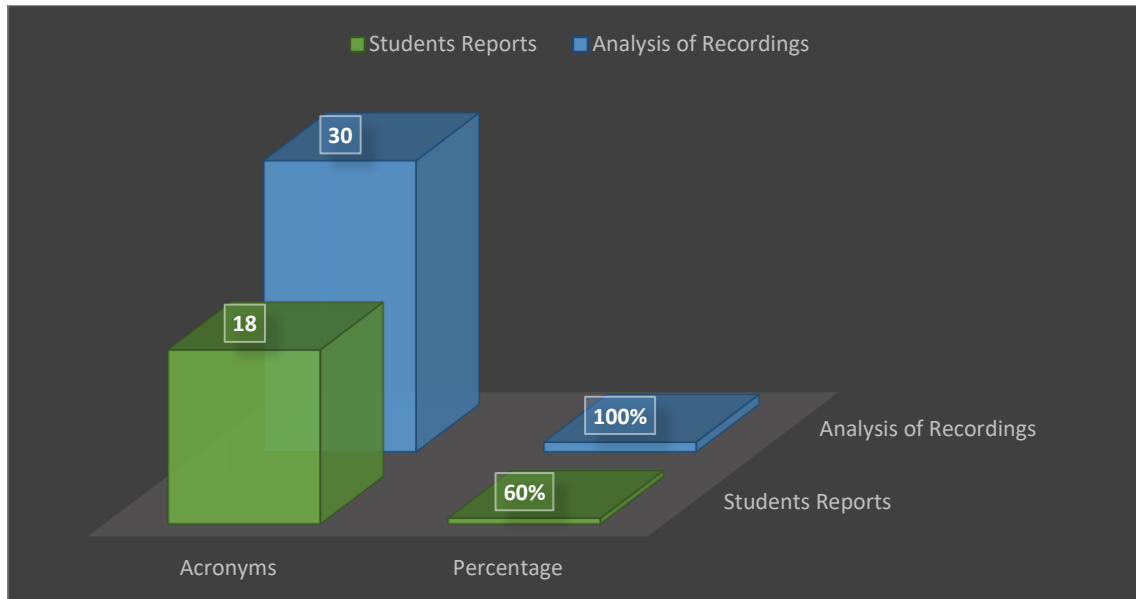
The differences in the analyses of novices' renderings and their reports regarding the interpretation of English names into Arabic.



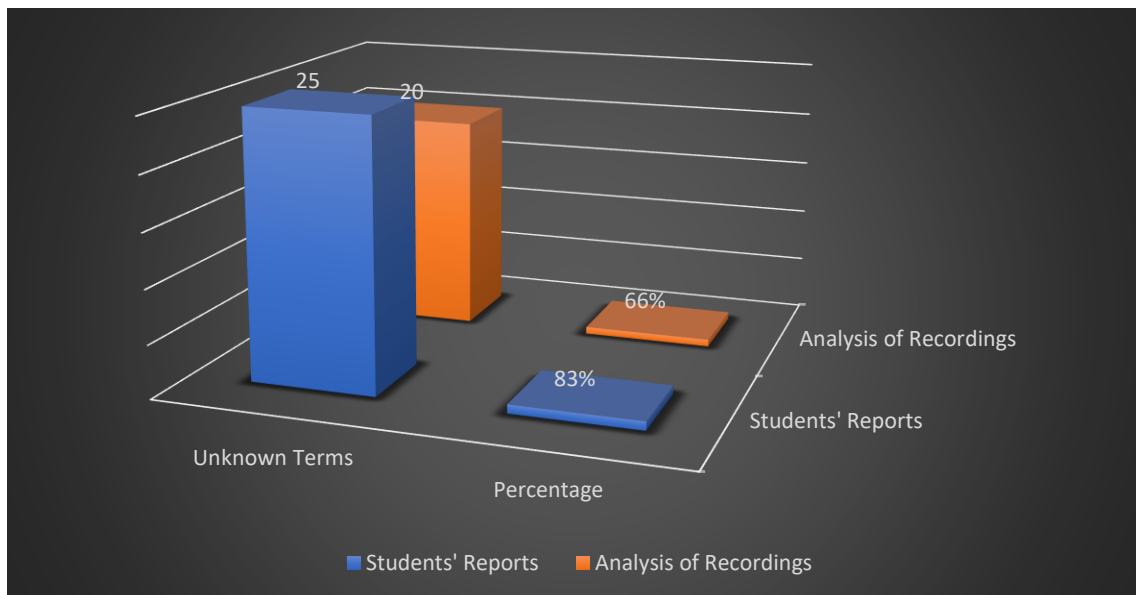
The differences in the analyses of novices' renderings and their reports regarding the interpretation of English numbers into Arabic.



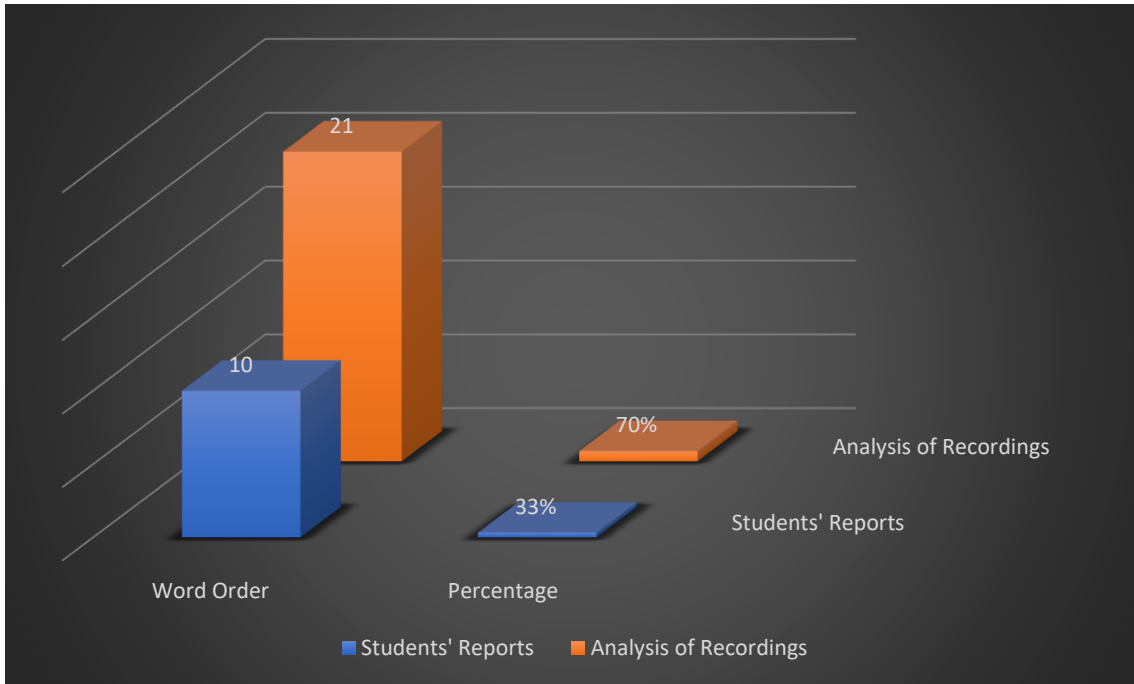
The differences in the analyses of novices' renderings and their reports regarding the interpretation of English acronyms into Arabic.



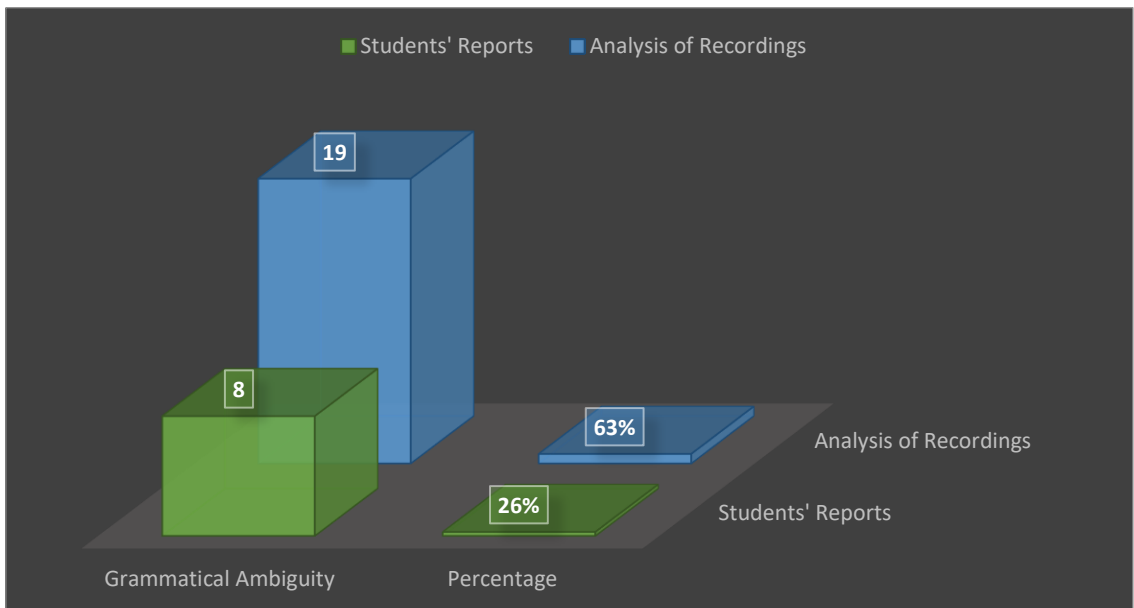
The differences in the analyses of novices' renderings and their reports regarding the interpretation of English unknown terms into Arabic.



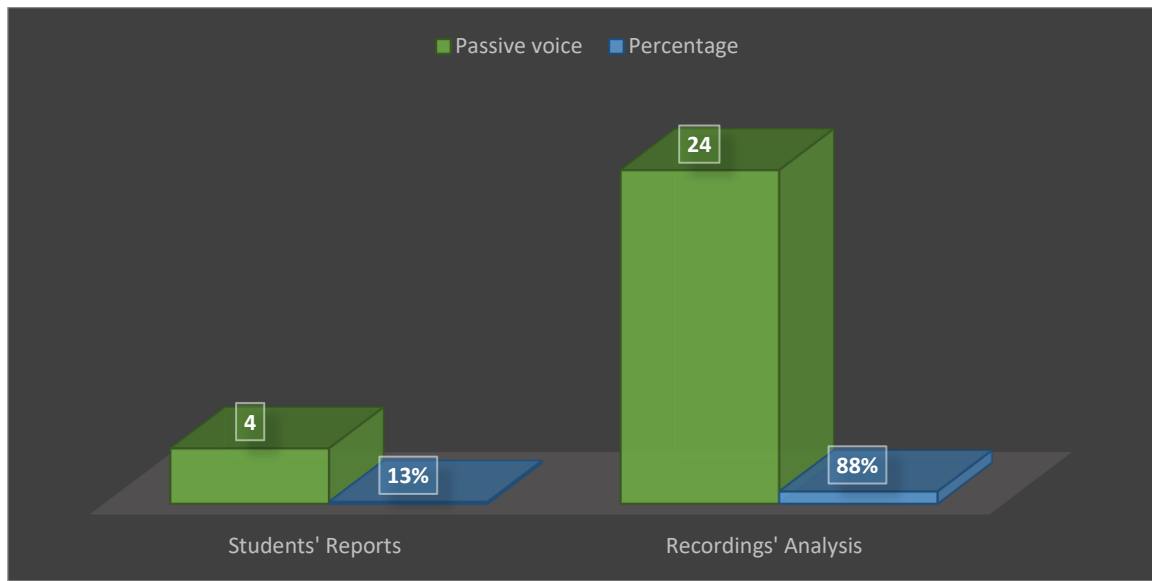
The differences in the analyses of novices' renderings and their reports regarding the word order differences between English and Arabic.



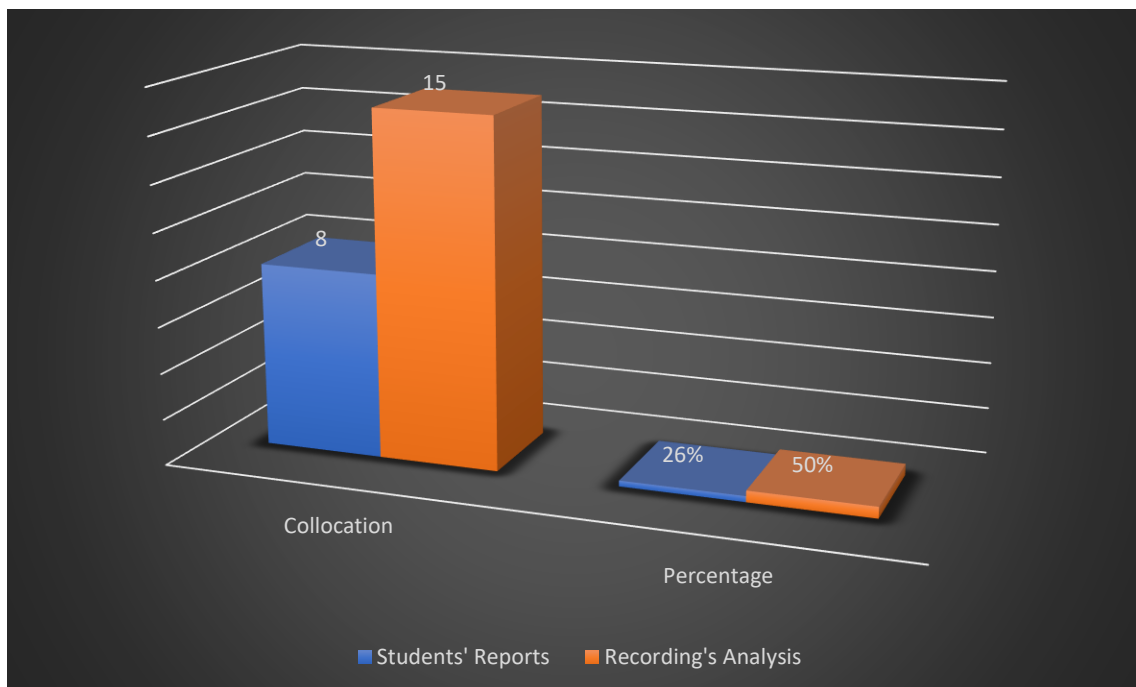
The differences in the analyses of novices' renderings and their reports regarding the grammatical ambiguity in English into Arabic task.



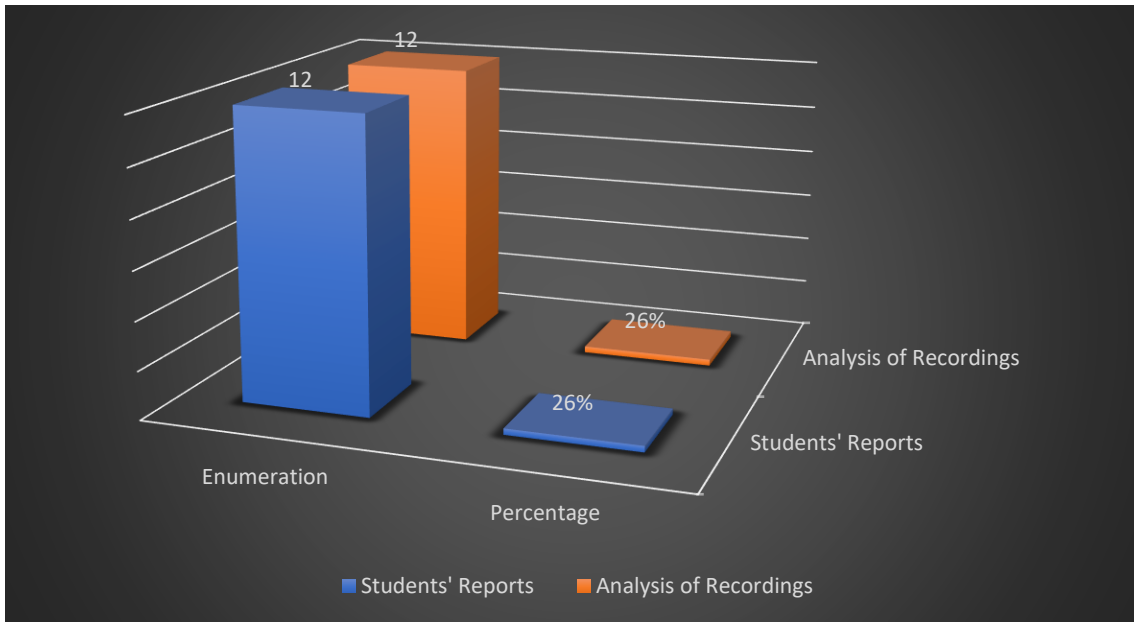
The differences in the analyses of novices' renderings and their reports regarding the passive voice in English into Arabic task.



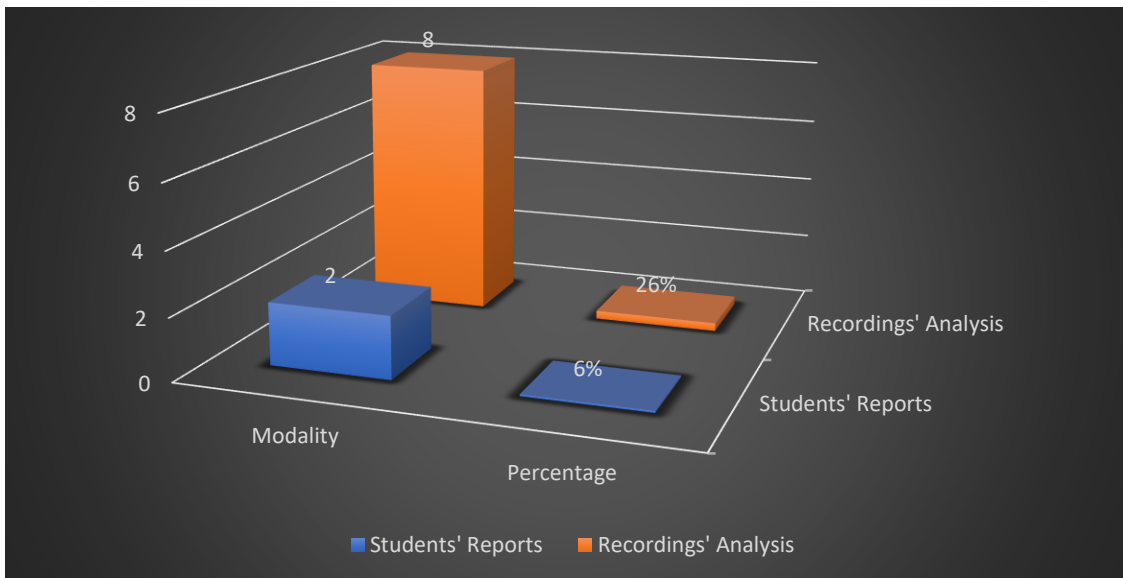
The differences in the analyses of novices' renderings and their reports regarding the collocation in English into Arabic task.



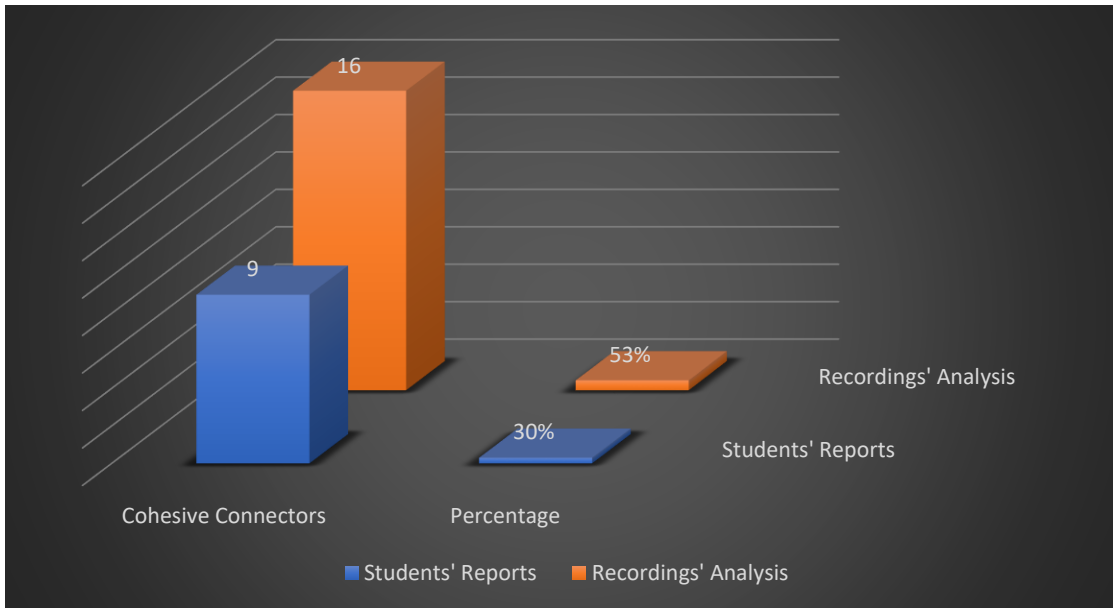
The differences in the analyses of novices' renderings and their reports regarding the enumerations in English into Arabic task.



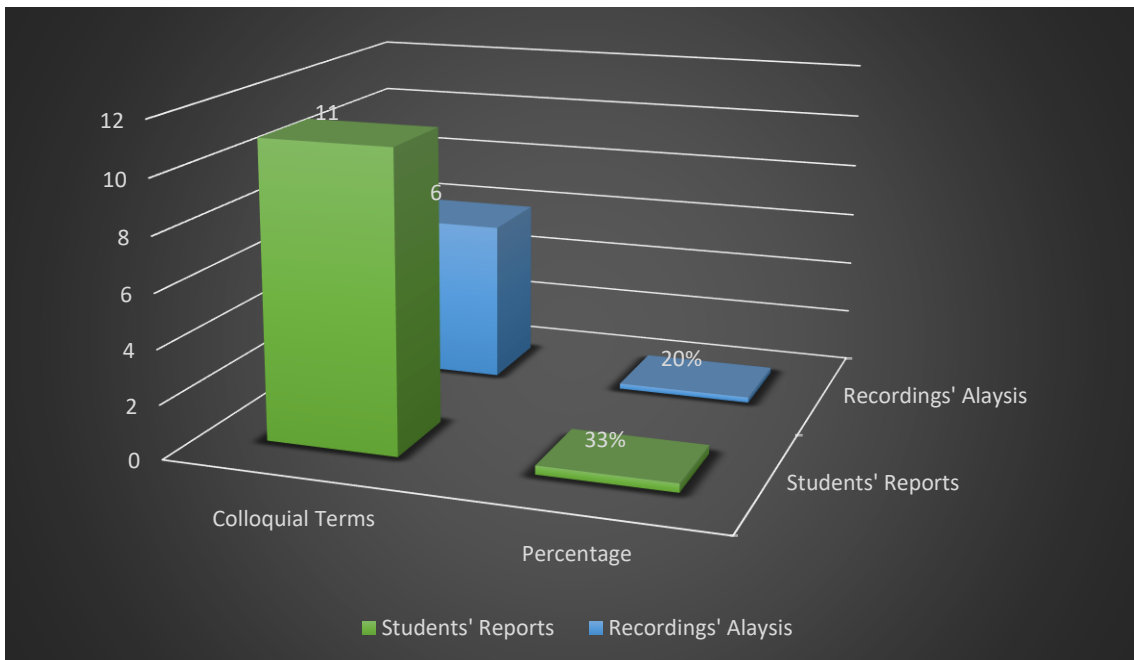
The differences in the analyses of novices' renderings and their reports regarding the modal verbs in English into Arabic task.



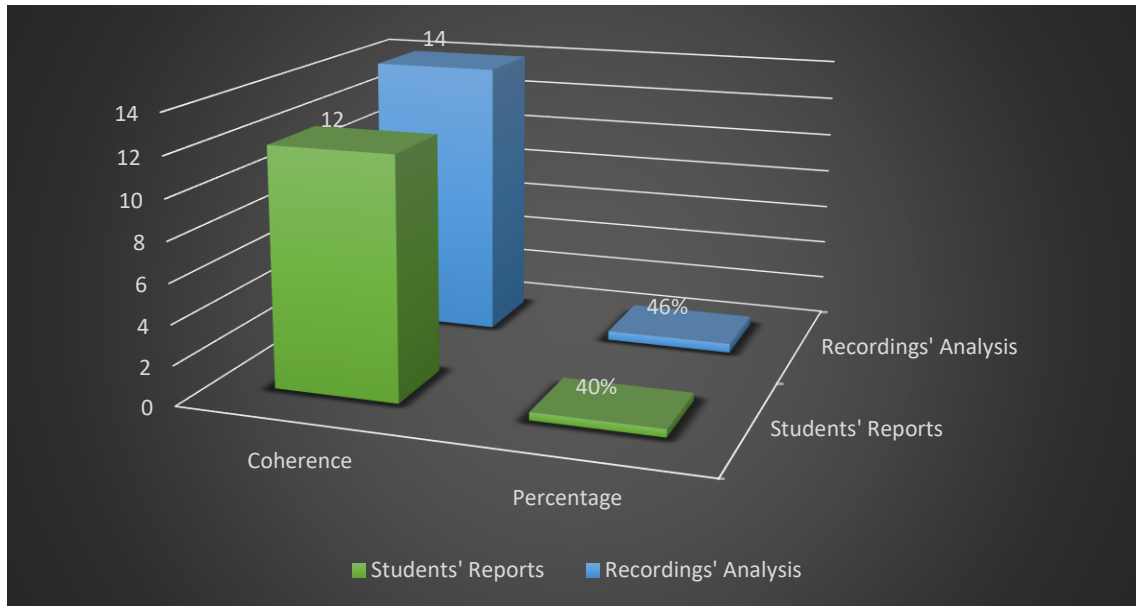
The differences in the analyses of novices' renderings and their reports regarding the cohesive connectors in English into Arabic task.



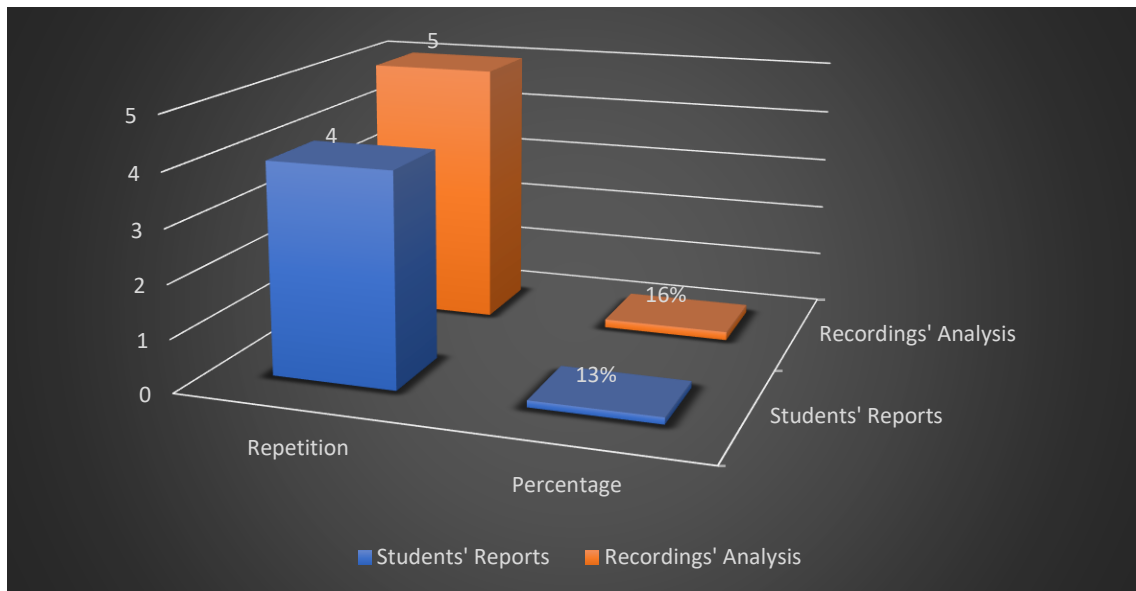
The differences in the analyses of novices' renderings and their reports regarding the colloquial items in English into Arabic task.



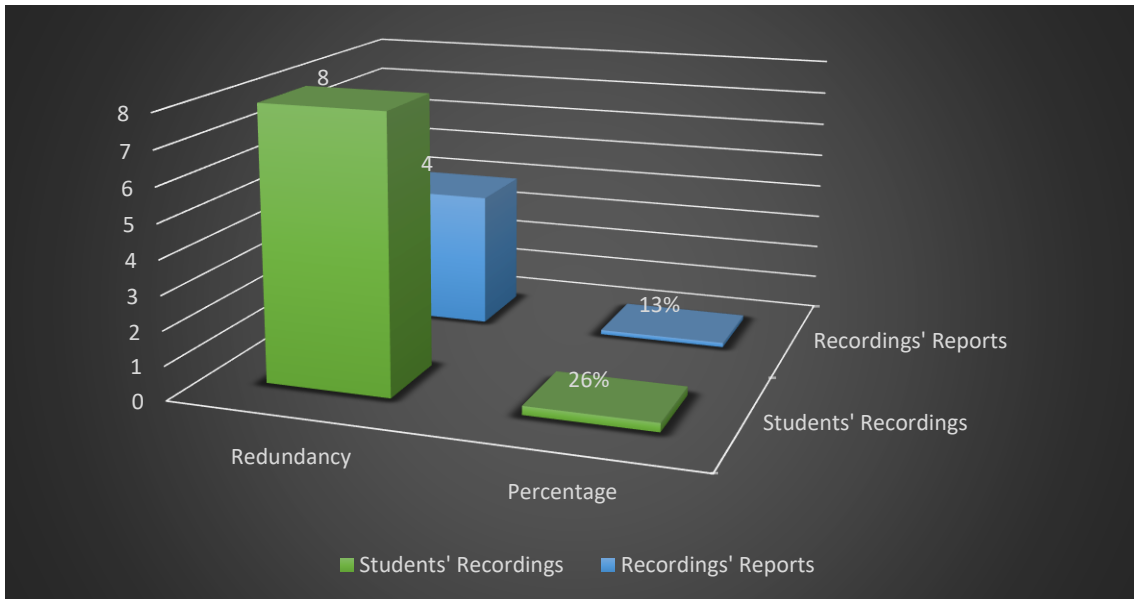
The differences in the analyses of novices' renderings and their reports regarding coherence in English into Arabic task.



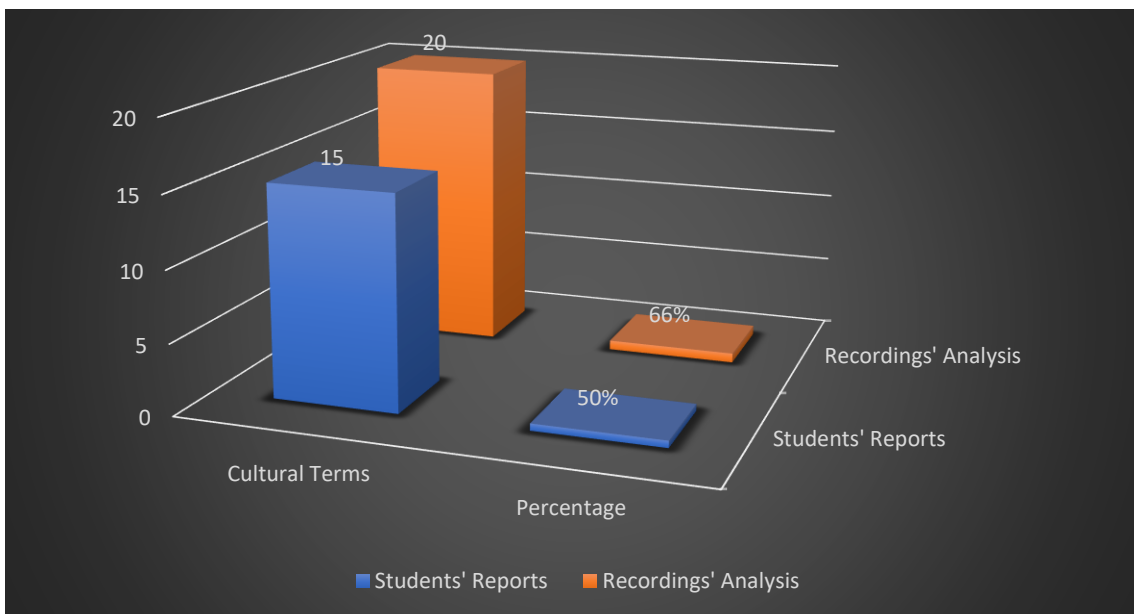
The differences in the analyses of novices' renderings and their reports regarding repetition in English into Arabic task.



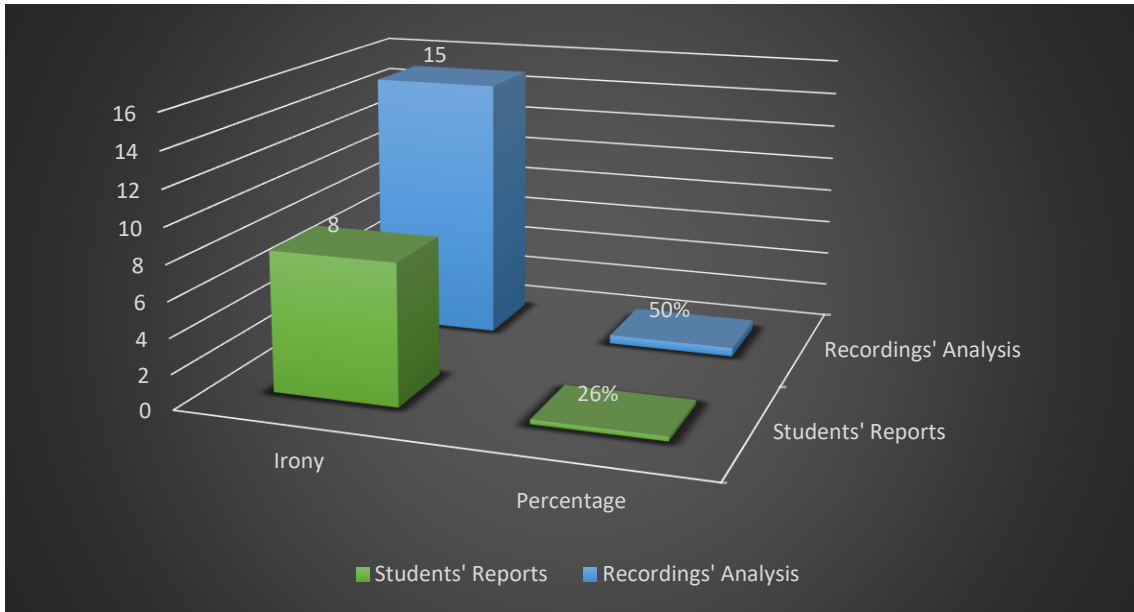
The differences in the analyses of novices' renderings and their reports regarding redundant structures in English into Arabic task.



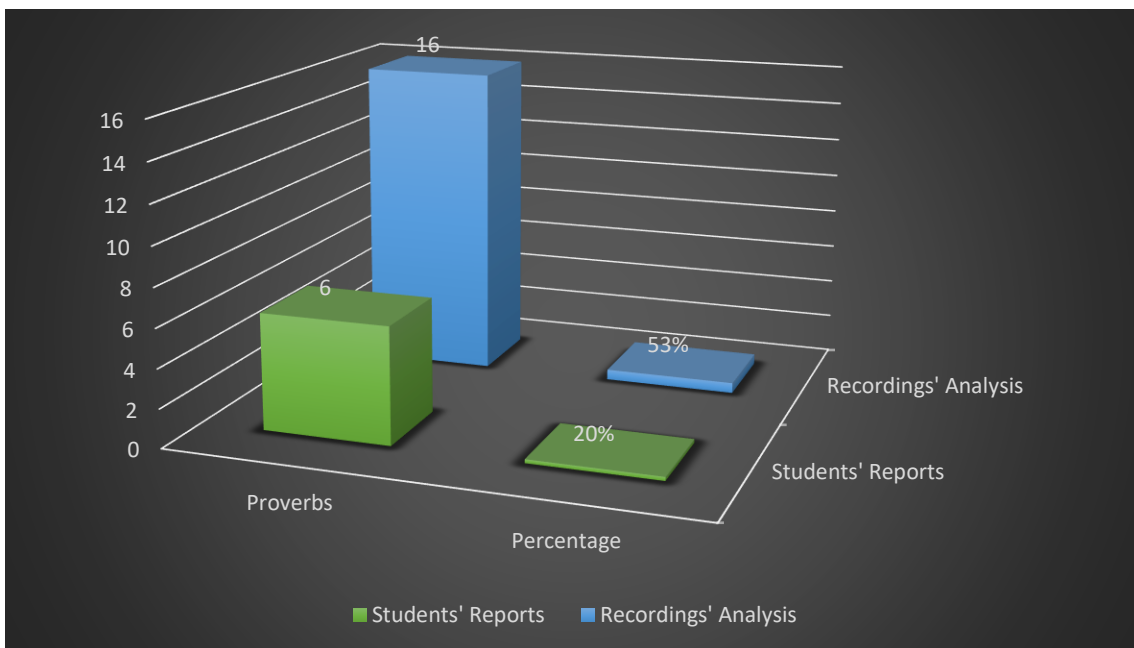
The differences in the analyses of novices' renderings and their reports regarding culture specific terms and structures in English into Arabic task.



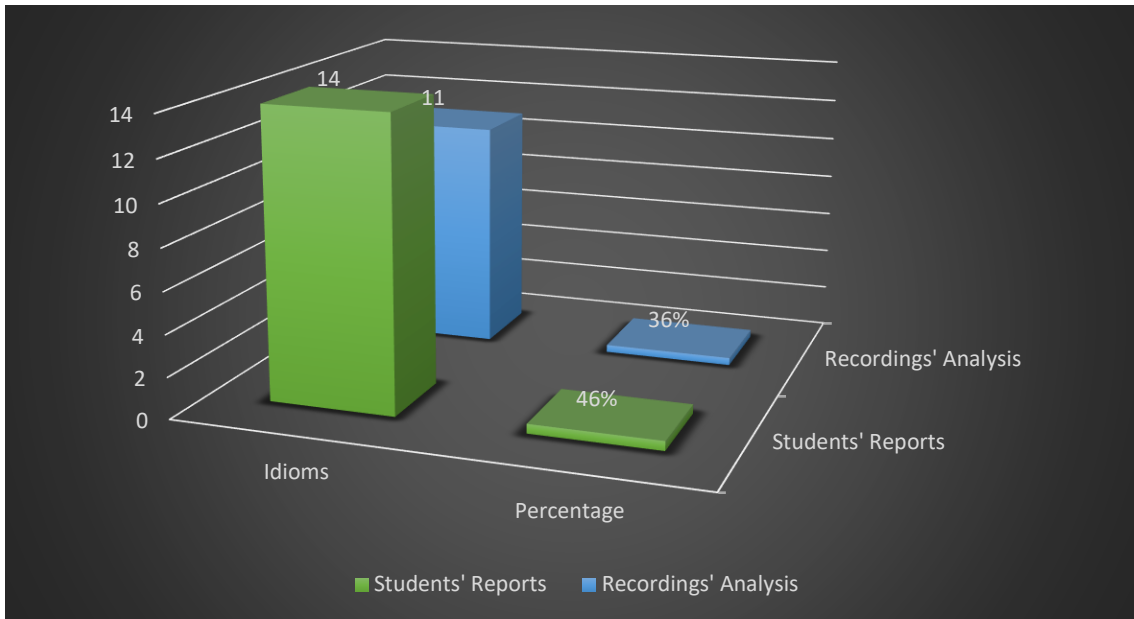
The differences in the analyses of novices' renderings and their reports regarding irony in English into Arabic task.



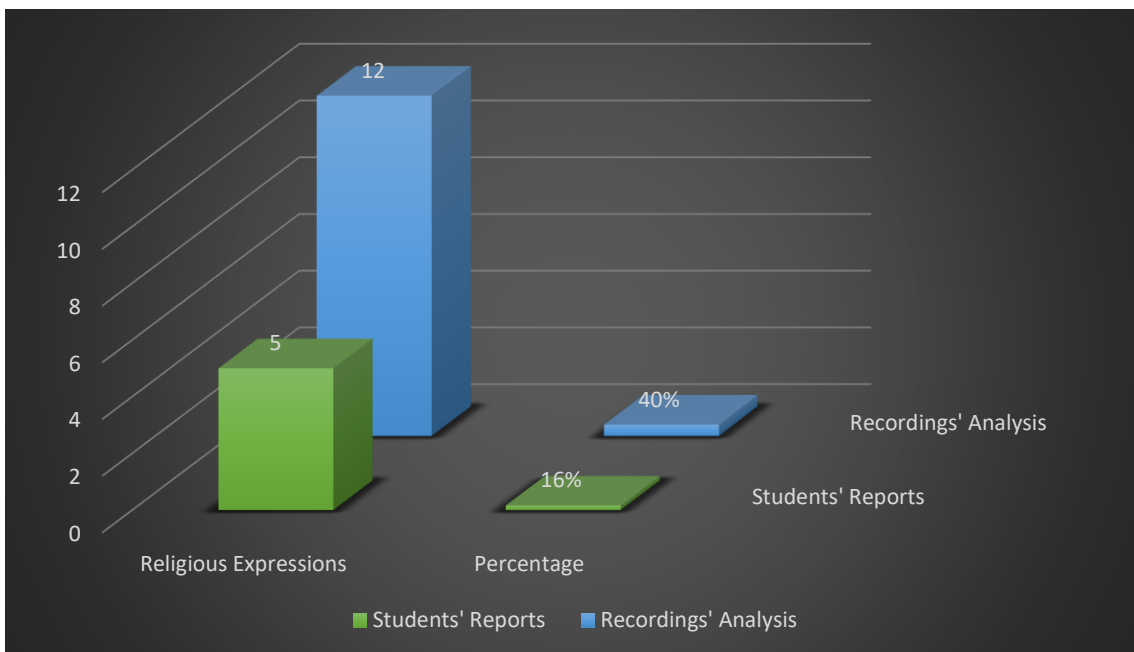
The differences in the analyses of novices' renderings and their reports regarding proverbs in English into Arabic task.



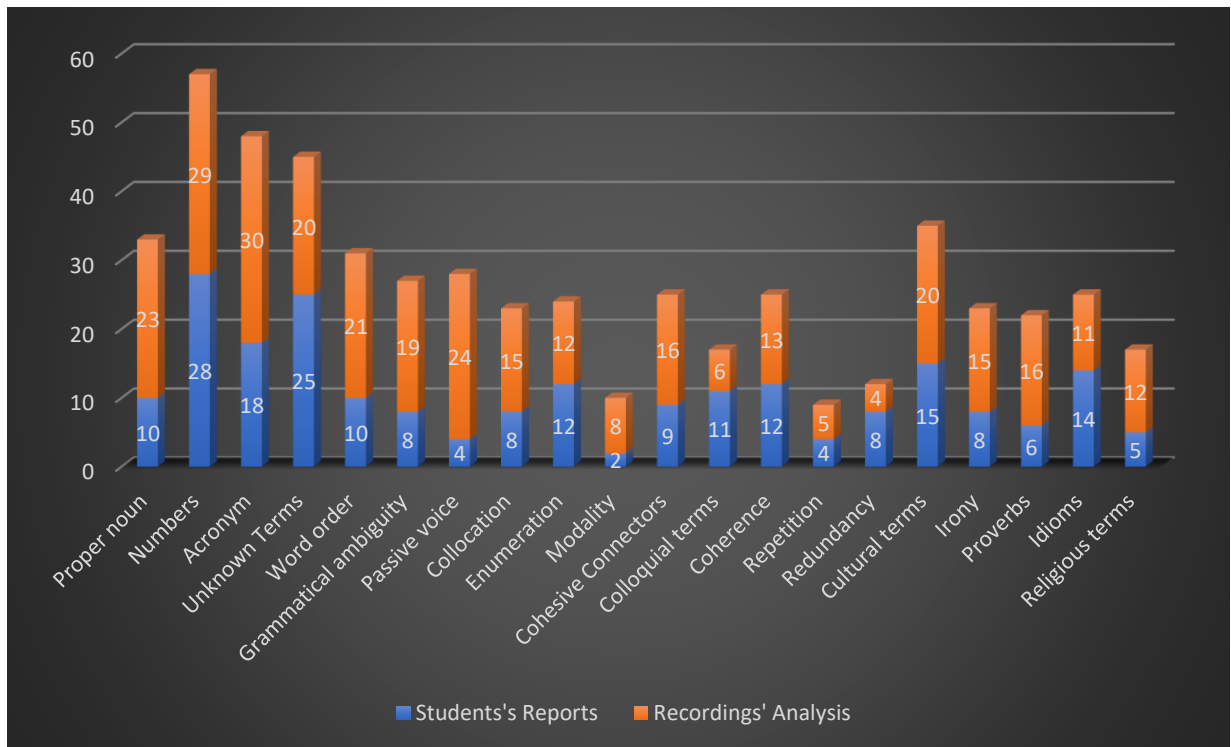
The differences in the analyses of novices' renderings and their reports regarding idioms in English into Arabic task.



The differences in the analyses of novices' renderings terms and structures with religious content in English into Arabic task.



Differences in the analyses of novices' reports and their interpreting recordings regarding the interpretation of the 20 categories



Appendix 11

Examples of Novices' Renderings during Arabic into English SI Task

Examples of novices' renderings of Arabic proper names into English

Subject	Source Text	Target Text	Back Translation
PCT6	وزيرة الدفاع البريطانية السيدة بيرني موردونت	And the British minister Barnie Mark	And the British defense minister Bernie Mordent
PEX17	يقول سقراط	Scissor said	Socrates said

Examples of novices' renderings of Arabic numbers into English task

Subject	Source Text	Target Text	Back Translation
PEX8	عقد الاجتماع العالمي الأول عام 1975	The meeting ...in 1977	The first international meeting was held in 1975
PCT7	وهي التونسية فاطمة بنت محمد الفهري عام 877م	Is the Tunisian Fatima ... in 1878	Is the Tunisian ...in 877.

Examples of novices' renderings of Arabic Acronyms into English task

Subject	Source Text	Target Text	Back Translation
PEX10	تم تعيينها سفيرة لمنظمة التربية والثقافة والعلوم التابعة للأمم المتحدة "اليونسكو"	In the United States ahah	She was assigned as ambassador in the UNESCO
PCT15	عدد النساء المنخرطات بالجيش الأمريكي في حرب الخليج والحرب على داعش	The number of women in the war against ISIS	The number of women who joined the US army in was against DAESH

Examples of novices' renderings of some of the Arabic unknown expressions into English task

Subject	Source Text	Target Text	Back Translation
PCT7	كما كان للنساء نصيب في براءات الاختراع	Women have invented a lot	Women contributed in the patents

PEX7	ولم تتوفر في حينها الأجهزة الحديثة كالمكنسة الكهربائية والغسالة الأوتوماتيكية	We could not have the automatic things	At the time when there were not modern devices such as the vacuum and the laundry
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Example of novices' renderings of word order differences in Arabic into English task

Subject	Source Text	Target Text	Back Translation
PEX21	اسمي الياس يوسف	My name Illyas AlYousif	My name is Illyas Yousif
PEX23		My name Illyas Yousif	

Examples of novices' renderings of grammatically ambiguous structures in Arabic into English task

Subject	Source Text	Target Text	Back Translation
PCT2	لم تتوفر له الاجهزة الالكترونية	They didn't provide electronic devices	There were no electronic devices
PCT8	فهي تبذل جهودا كبيرة	She do a lot of effort	She exerts a lot of efforts

Examples of novices' renderings for the passive voice in Arabic into English task

Subject	Source Text	Target Text	Back Translation
PEX10	اقدم جامعة تم تأسيسها من قبل	The oldest university was published by	The oldest university was established by
PEX16		The oldest university build by woman	
PEX14	تم تعيينها سفيرة من قبل اليونسكو	Zaha has been known the ...	She was assigned as an ambassador by the ..

Examples of novices' renderings for the collocations in Arabic into English task

Subject	Source Text	Target Text	Back Translation
PCT8	تبذل جهودا كبيرة في	she do a lot of efforts in home	She exerts a lot of efforts

PEX2		she got a lot of efforts	
PEX5		she is do much effort	
PCT14	حصلت على جائزة نوبل للسلام	achieved Nobel peace reward	She won Nobel peace prize
PEX10		take the Nobel prize	

Examples of novices' renderings for the enumerated expressions in Arabic into English task

Subject	Source Text	Target Text	Back Translation
PEX9	فهي الأم والأخت والزوجة والابنة والعمة والخالة	She is a mother ahahah aunt ...	She is the mother, sister, wife, daughter, and aunt.
PCT16		Woman is mother sister and ...	

Examples of novices' renderings for the modal verbs in Arabic into English task

Subject	Source Text	Target Text	Back Translation
PCT3	يجب عليّ ان اذكركم	I want to remind you	I have to remind you
PCT5		I suppose to mention	

Examples of novices' renderings for the cohesive connectors in Arabic into English task

Subject	Source Text	Target Text	Back Translation
PCT14	أتذكر أيضا أنها كانت تستيقظ	I also remember that ...	I also remember how my...
PEX7	أول امرأة عربية تفوز بجائزة نوبل للسلام لإسهاماتها في مجال دعم المرأة	The first woman who won Nobel peace prize because she contributed in supporting...	The first woman who won Nobel peace prize for her contributions ...

Examples of novices' renderings for the colloquial terms in Arabic into English task

Subject	Source Text	Target Text	Back Translation
PCT4	وفي بالي المثل الذي يقول	I have in my mind now the saying ...	In my mind a saying which states ...
PCT14	في طبخ الاكلات التي نحبها	Cooking our beloved or favourite dishes	In cooking our favourite dishes

Examples of novices' renderings for the redundant structures in Arabic into English task

Subject	Source Text	Target Text	Back Translation
PCT7	حصول الكثير من النساء على الشهادات العليا كالمجستير والدكتوراه	Women got high degrees in different specializations	Many women received high degrees such as Master and PhD
PCT9	تم تعيينها سفيرة لمنظمة التربية والثقافة والعلوم التابعة للأمم المتحدة "اليونسكو" في 2010.	She is now ambassador in US ...	She was assigned in United Nations Educational, Scientific, and Cultural Organization (UNESCO)

Examples of novices' renderings for the culture specific terms and structures in Arabic into English task

Subject	Source Text	Target Text	Back Translation
PCT3	حقيبة الدفاع	The bag of defense	The defense portfolio
PCT7		The defense bag	
PEX1	فهي الام والاخت والزوجة و الخالة والعمة	She is mother, daughter, wife ahahah..	She is the mother, sister, daughter, and aunt

Examples of novices' renderings of the proverbs in Arabic into English task

Subject	Source Text	Target Text	Back Translation
PCT9	إذا أردت أن تعرف رقي أمة فانظر إلى نساها	If you want to see the society you must to see the woman first	if you want to see the success of the nation look at its women
PEX21			
PEX12	وكما يقال وراء كل رجل عظيم امرأة	As they said every great man a great woman	as it is said behind every great man a great woman

Example of novices' renderings of idioms in Arabic into English task

Subject	Source Text	Target Text	Back Translation
PCT9	وتساهم المرأة في بناء الأجيال	She starts building nations	She contributes in raising the generations
PEX8		Woman starts to build our society	

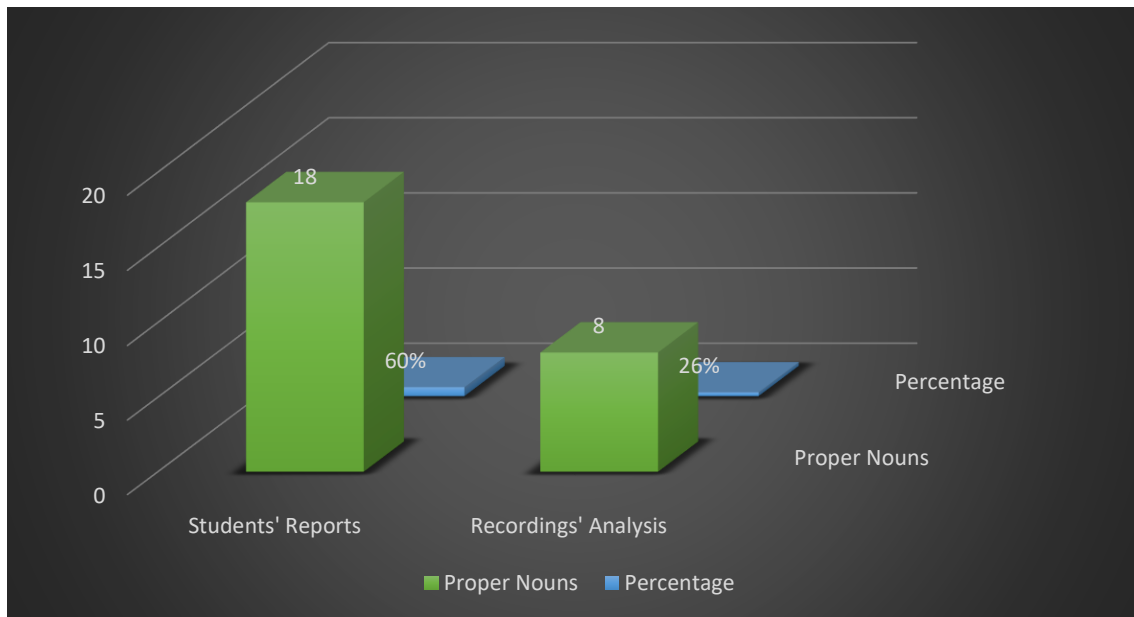
Example of novices' renderings of terms and structures with religious content in Arabic into English task

Subject	Source Text	Target Text	Back Translation
PCT3	ووصينا الإنسان بوالديه حملته أمه وهنا على وهن	Wawassayna alinsana biwalidayhi hamalathu ommuhu wahnna AAala wahnin	And We have enjoined on man (to be good) to his parents: in travail upon travail did his mother bear him,
PEX13			
PEX5			
PCT7		Quran say we should respect women	
PCT14		Aya from Quran saying woman an important to us	
PEX1		we have to respect the woman	
PEX3		you should follow them and obey your mother	

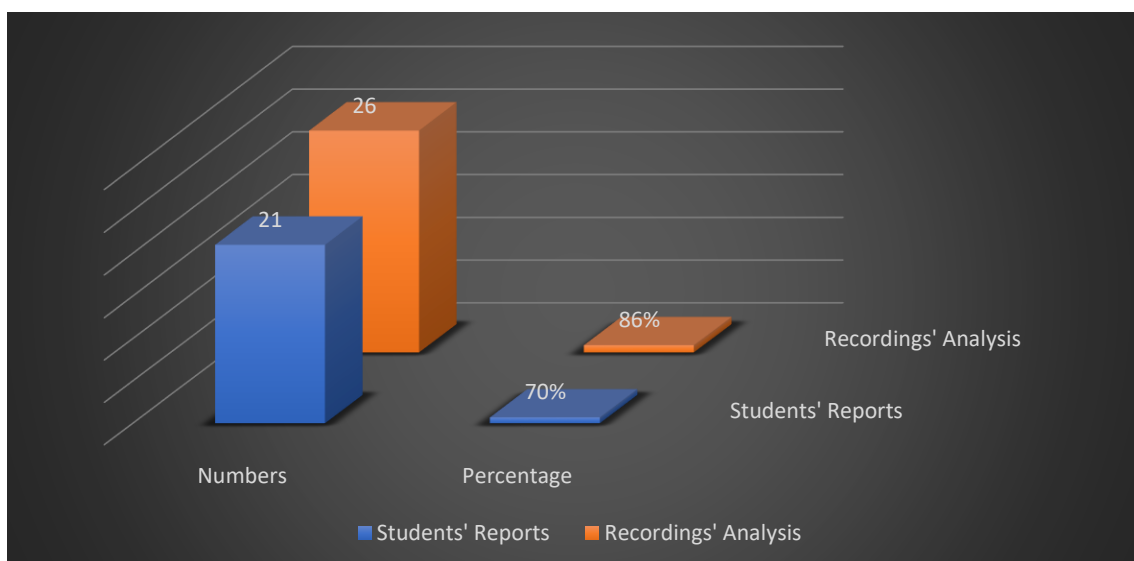
Appendix 12

Figures that show the differences in the analyses of novices' renderings and their reports during Arabic into English task of the pilot study.

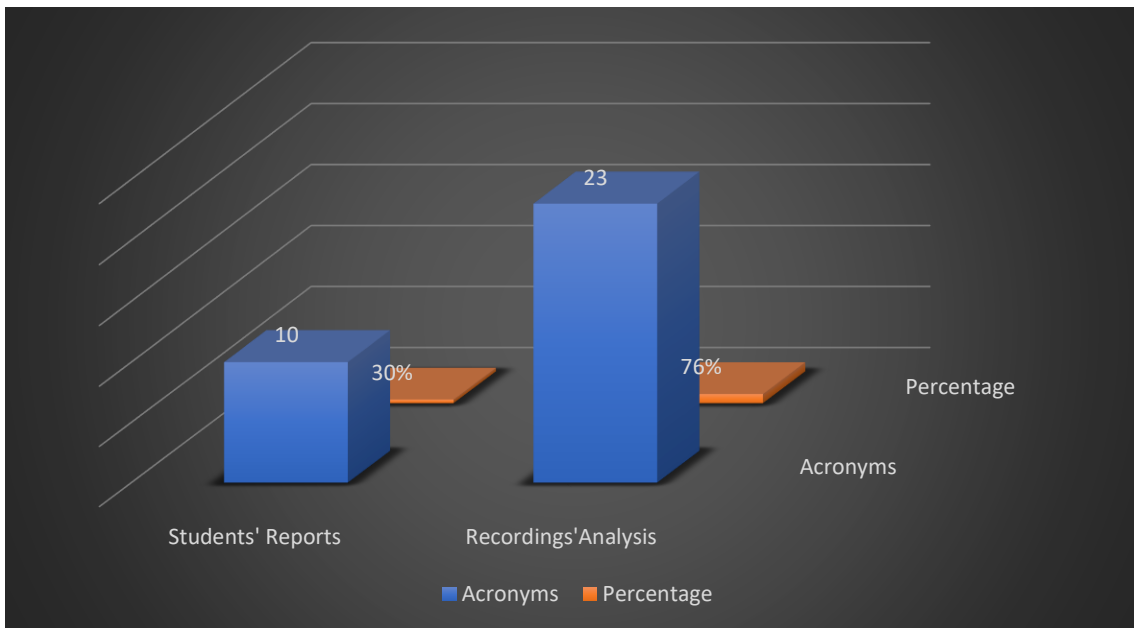
The differences between both analyses regarding the interpretation of proper names.



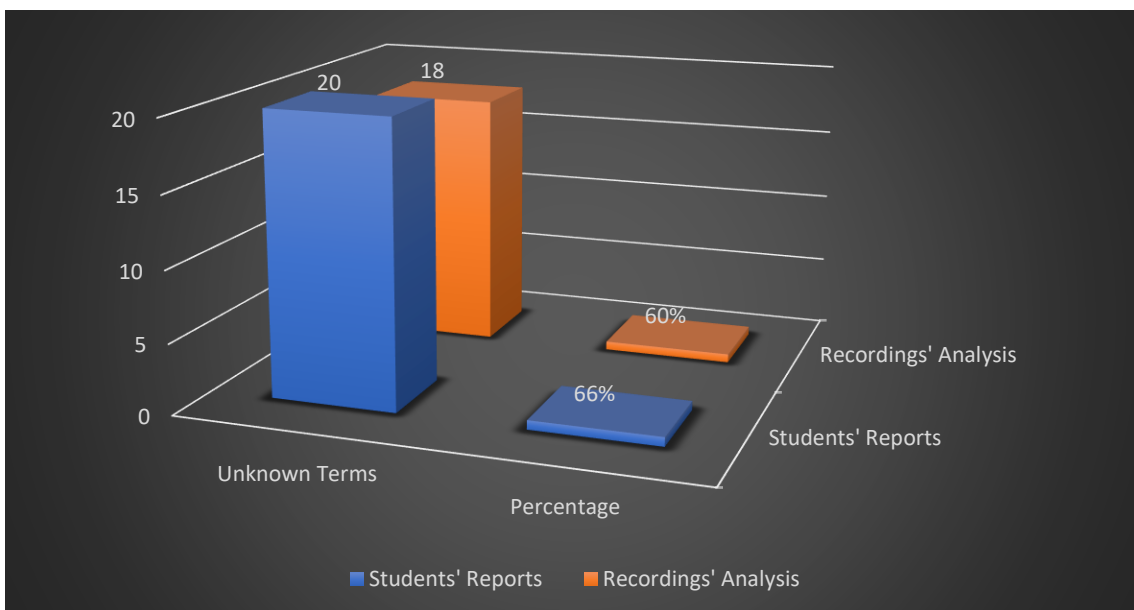
The differences in the analyses of novices' renderings and their reports regarding the interpretation of numbers.



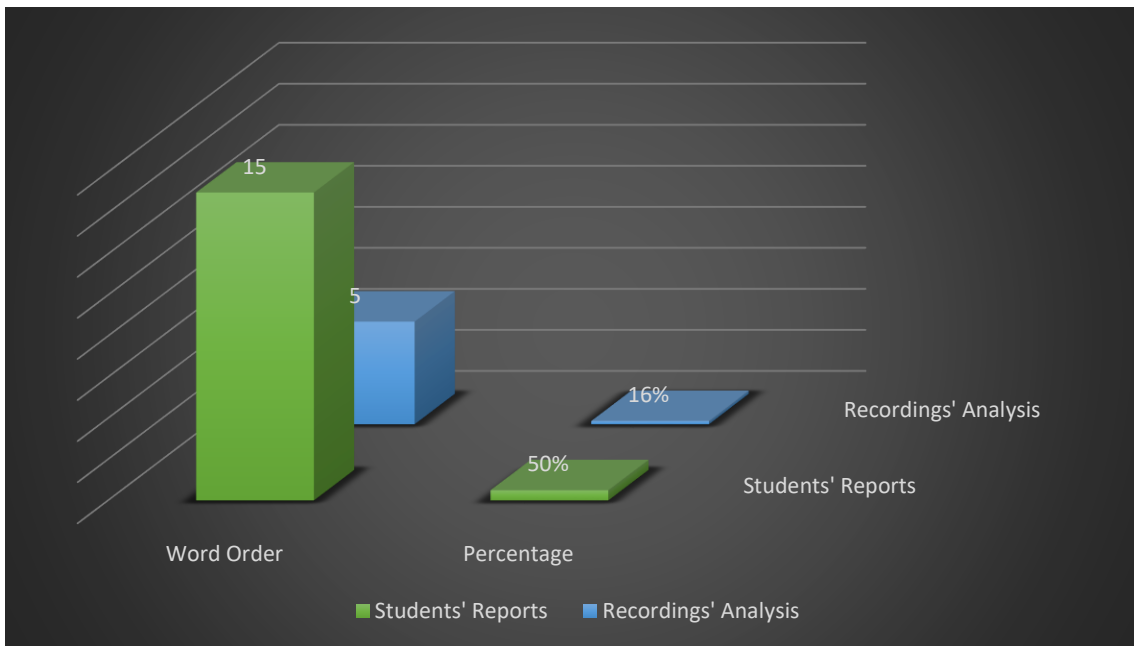
The differences in the analyses of novices' renderings and their reports regarding the interpretation of Acronyms.



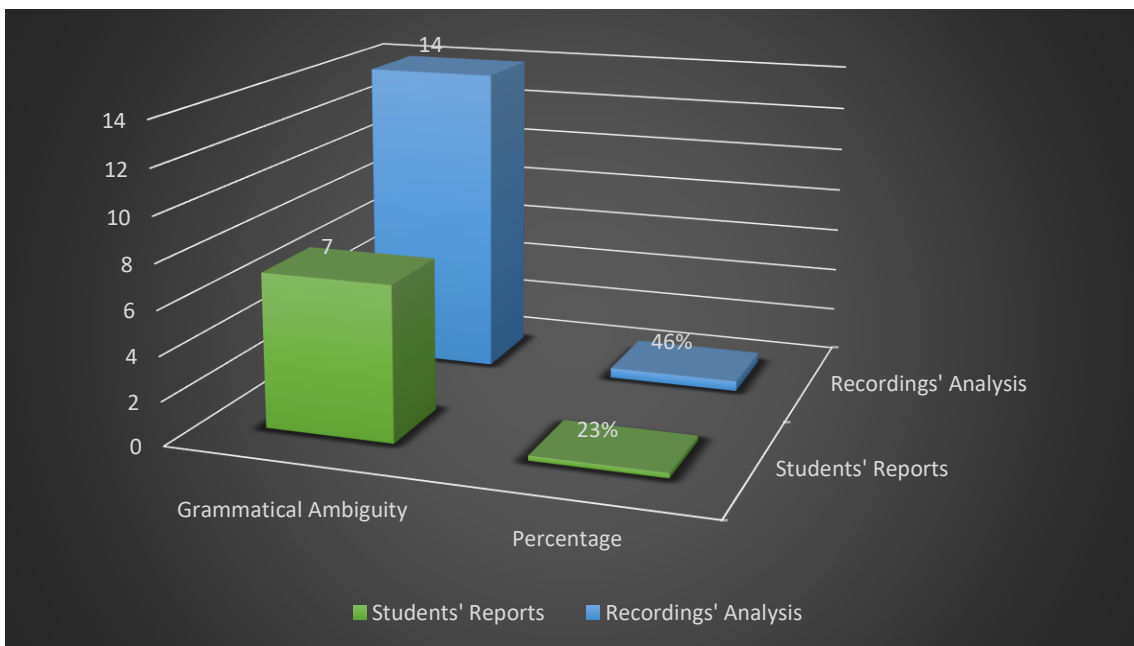
The differences in the analyses of novices' renderings and their reports regarding the interpretation of unknown terms.



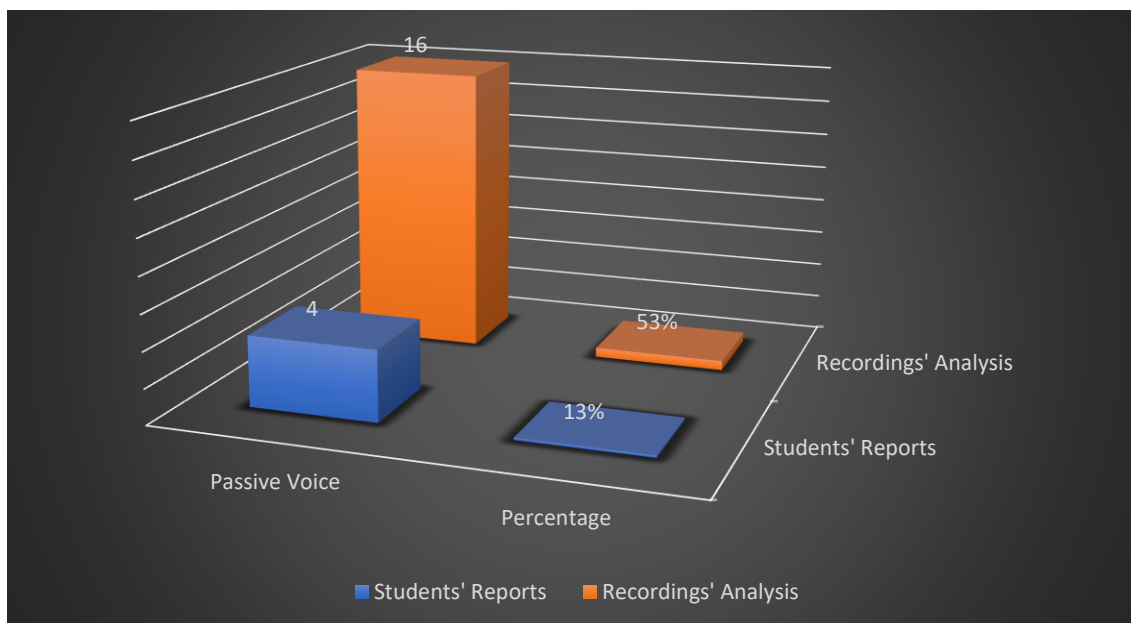
The differences in the analyses of novices' renderings and their reports regarding the word order differences.



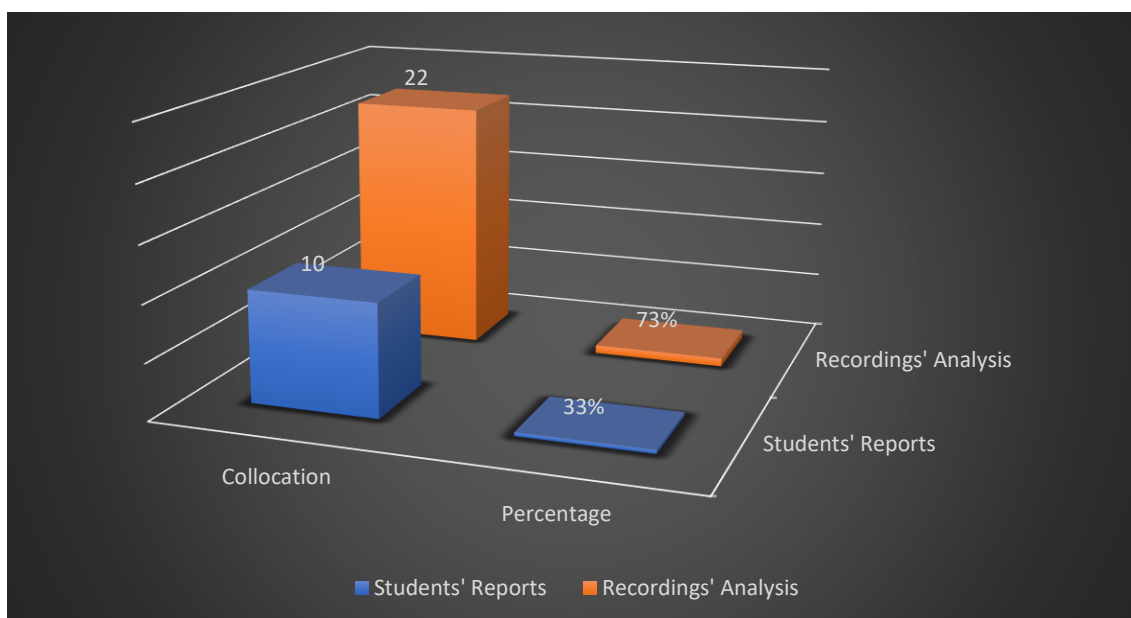
The differences in the analyses of novices' renderings and their reports regarding the grammatically ambiguous structures.



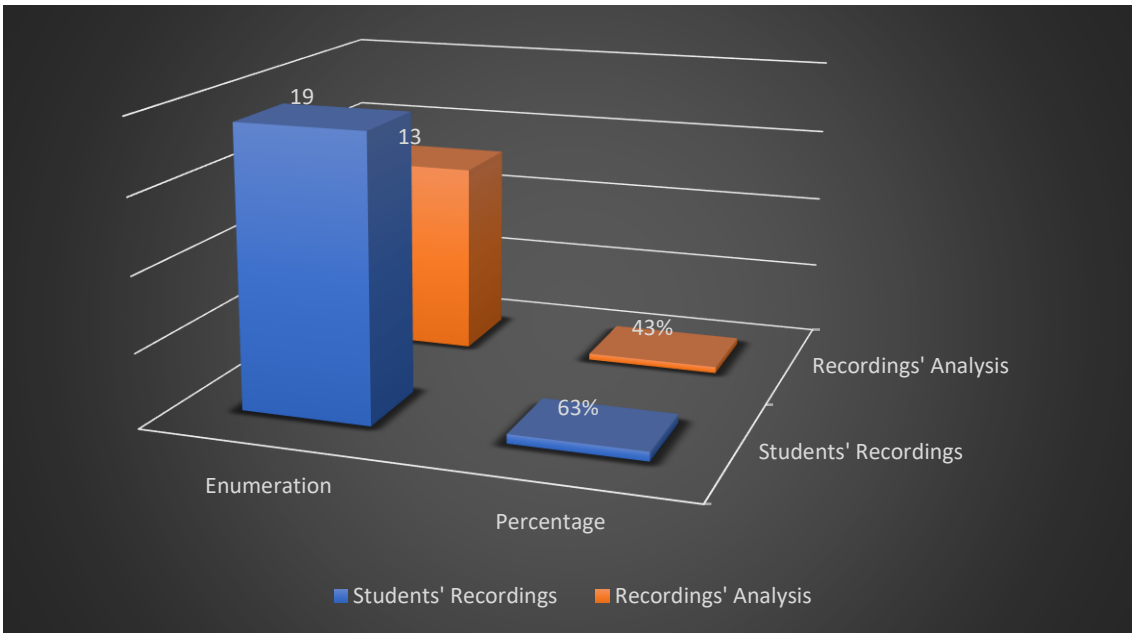
The differences in the analyses of novices' renderings and their reports regarding the interpretation of passive voice.



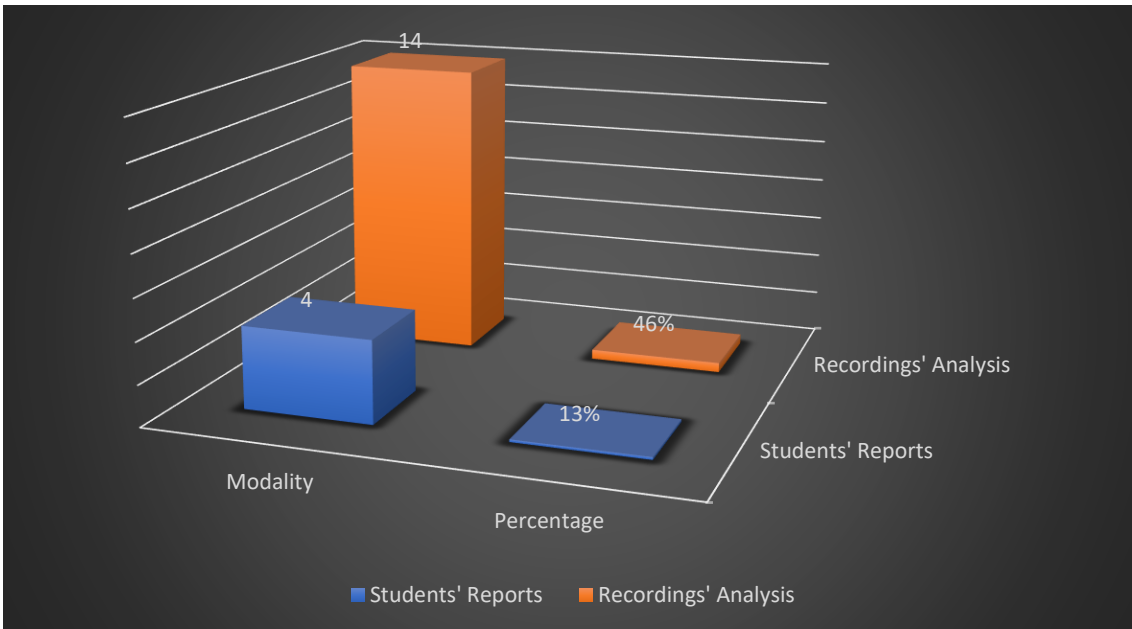
The differences in the analyses of novices' renderings and their reports regarding the interpretation of collocations.



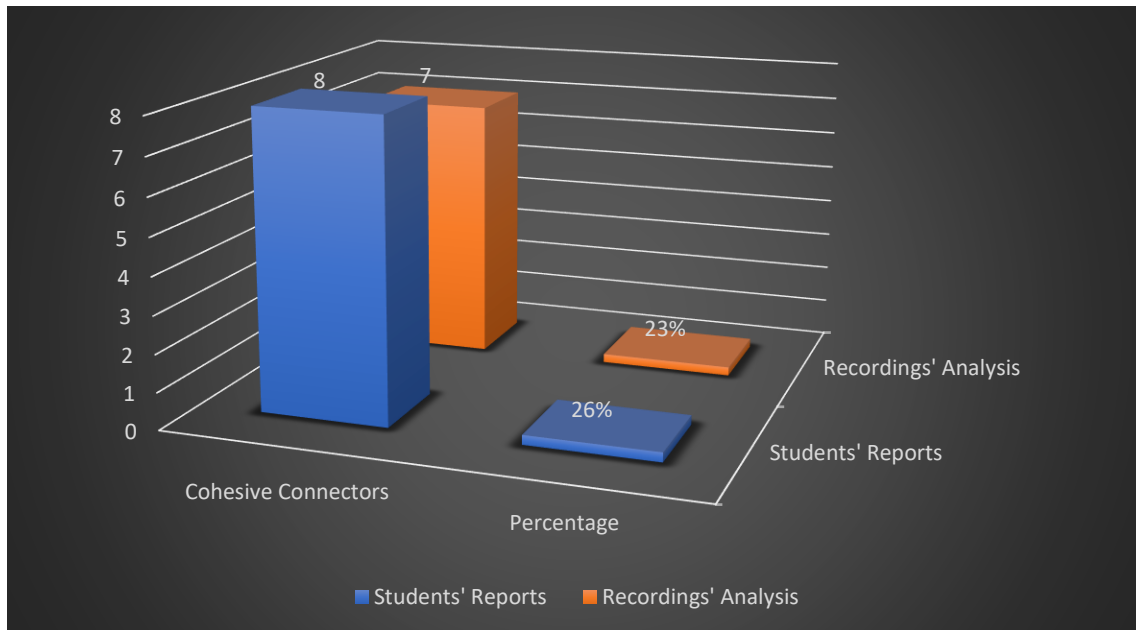
The differences in the analyses of novices' renderings and their reports regarding the interpretation of enumerated expressions.



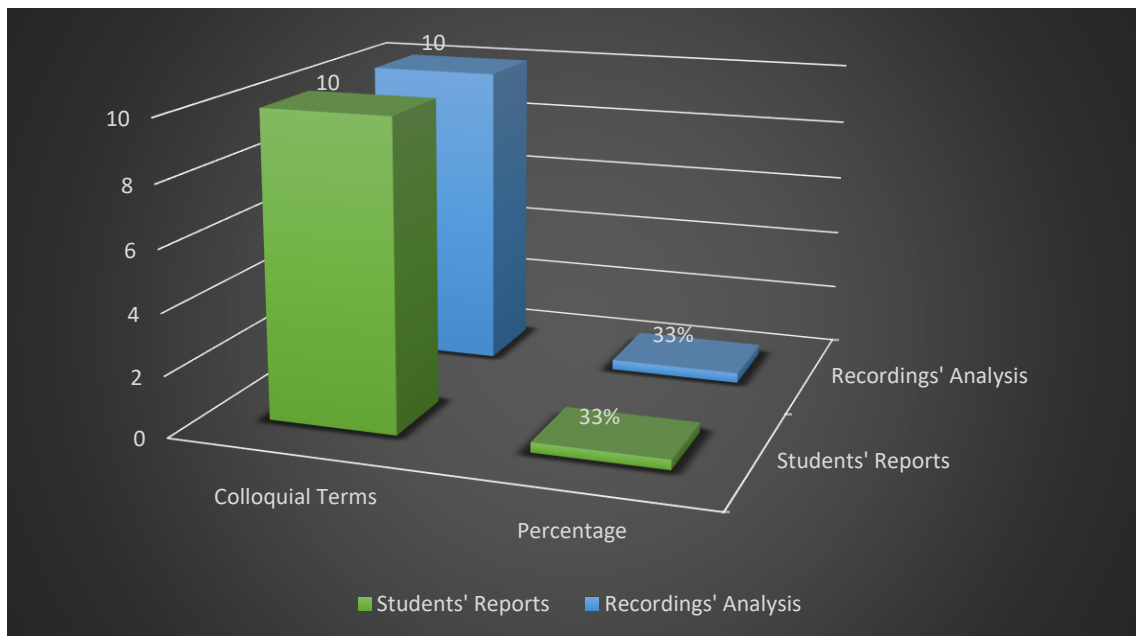
The differences in the analyses of novices' renderings and their reports regarding the interpretation of modal verbs.



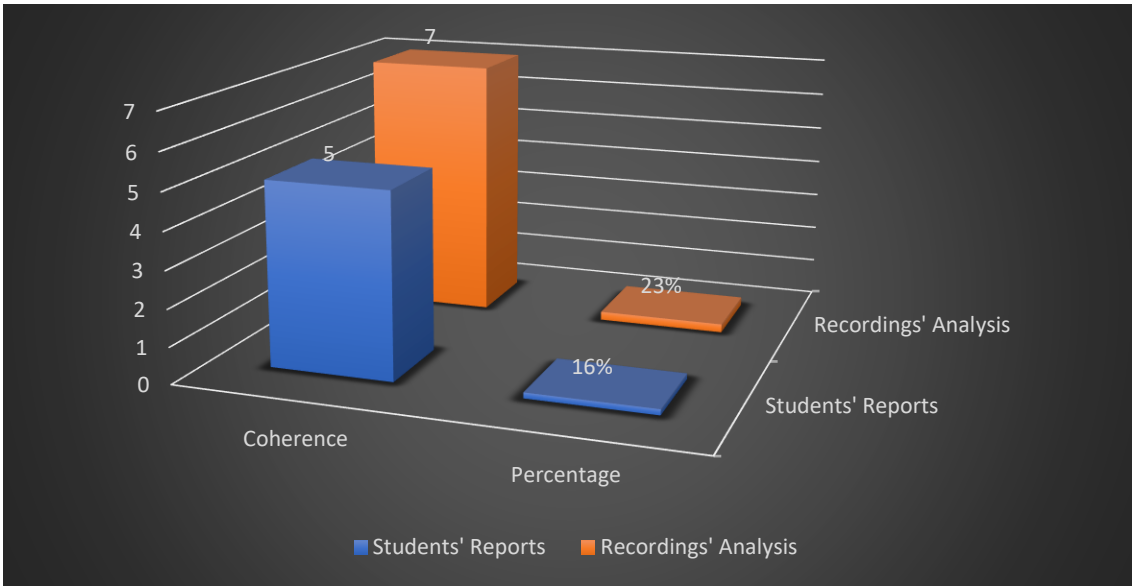
The differences in the analyses of novices' renderings and their reports regarding the interpretation of cohesive connectors.



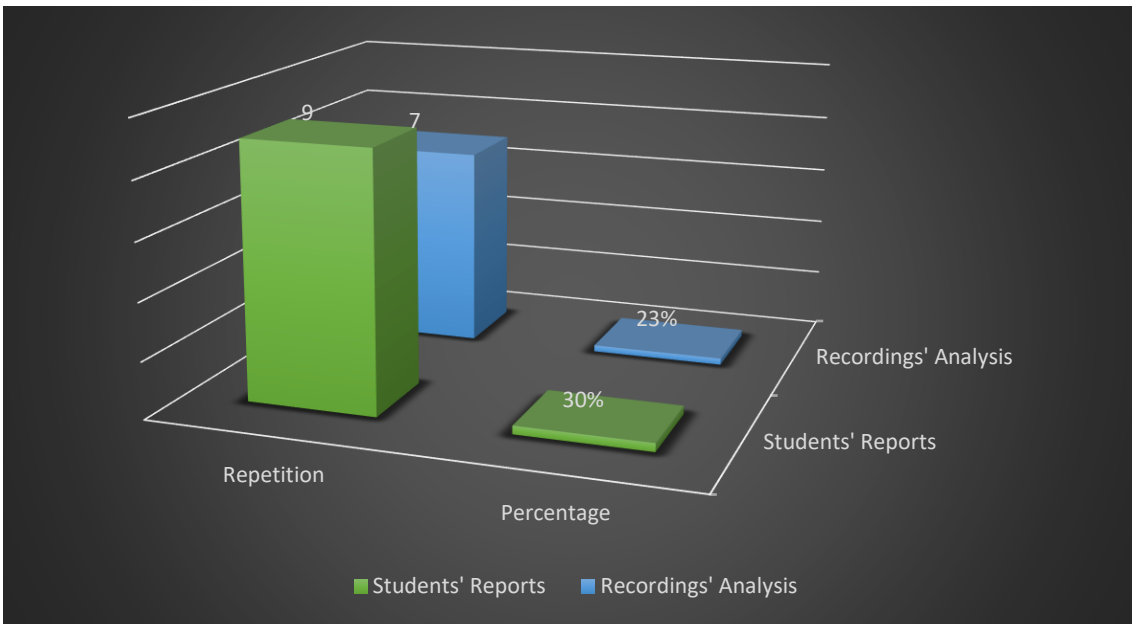
The differences in the analyses of novices' renderings and their reports regarding the interpretation of colloquial terms.



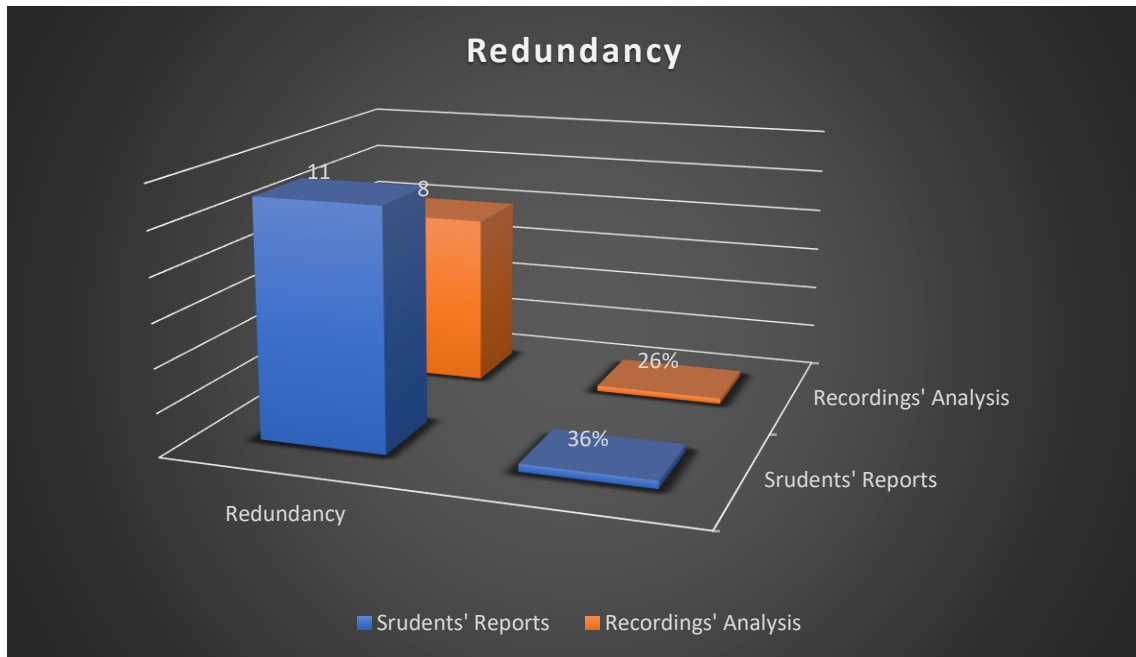
The differences in the analyses of novices' renderings and their reports regarding providing coherent rendering.



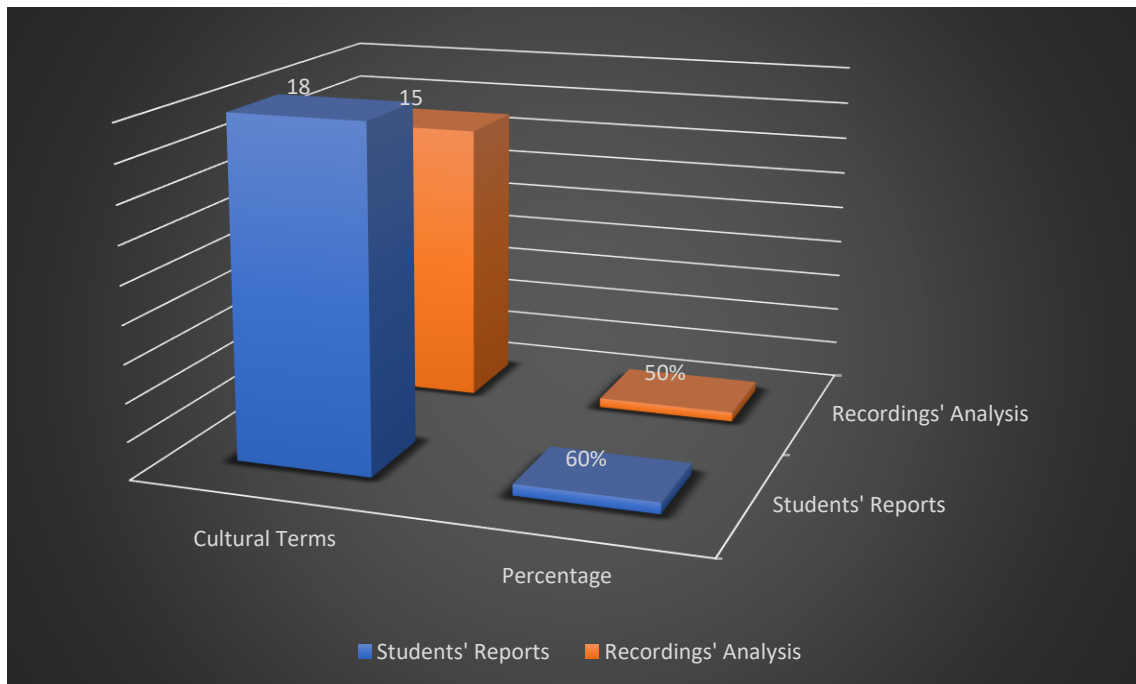
The differences in the analyses of novices' renderings and their reports regarding the interpretation of repeated structures.



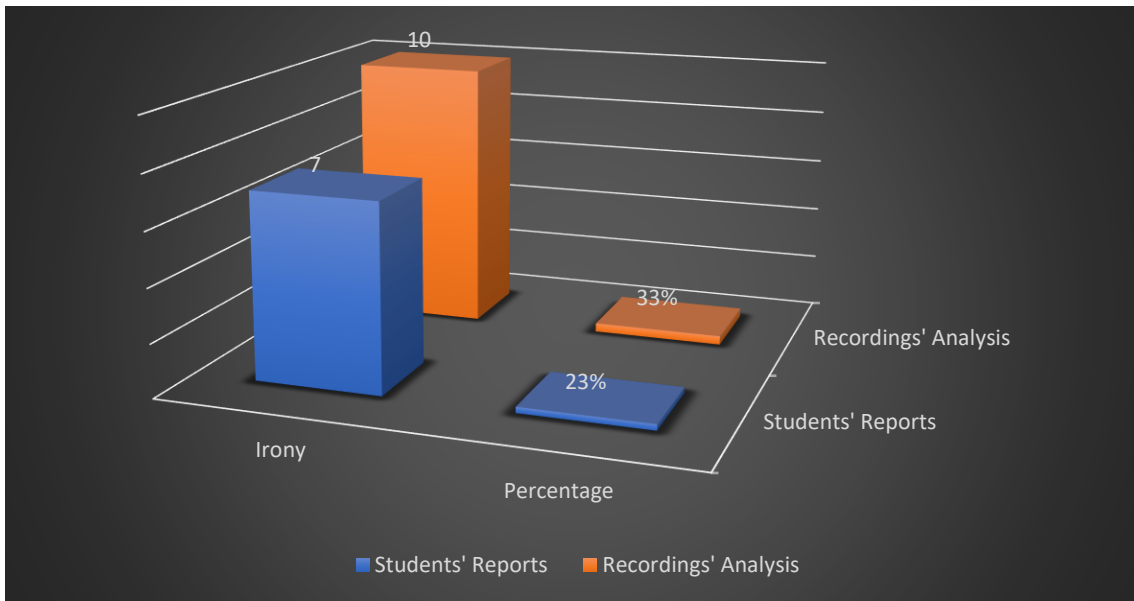
The differences in the analyses of novices' renderings and their reports regarding the interpretation of redundant structures.



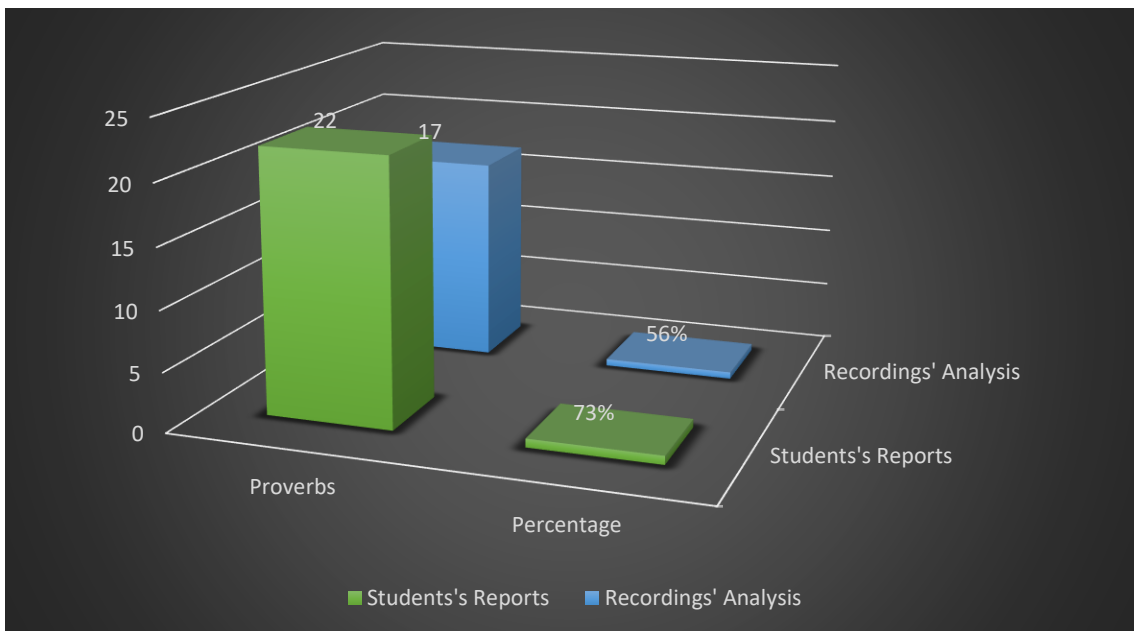
The differences in the analyses of novices' renderings and their reports regarding the interpretation of culture specific terms and structures.



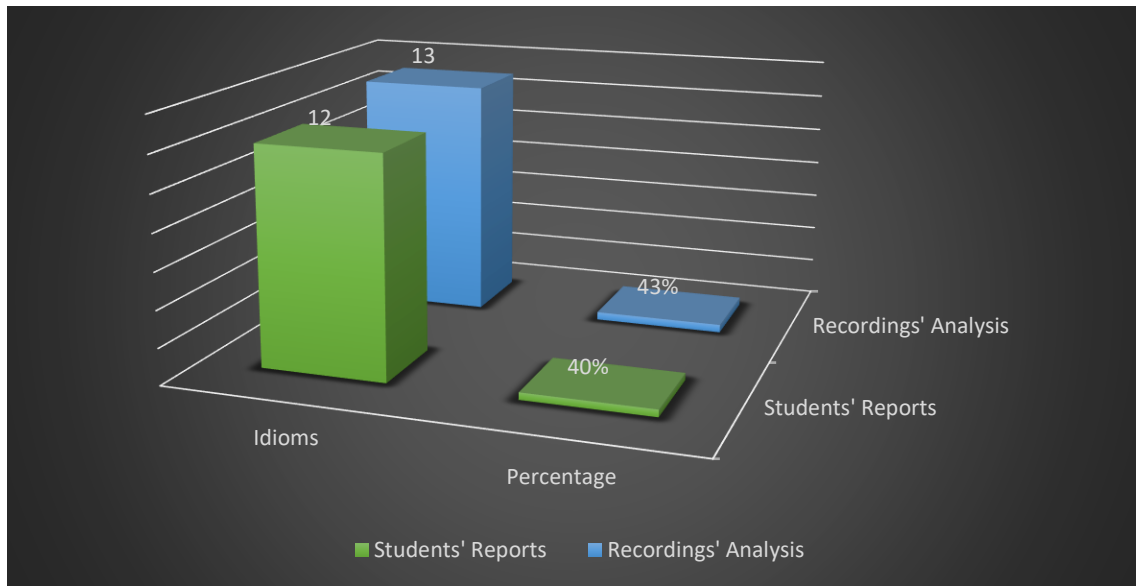
The differences in the analyses of novices' renderings and their reports regarding the interpretation of irony.



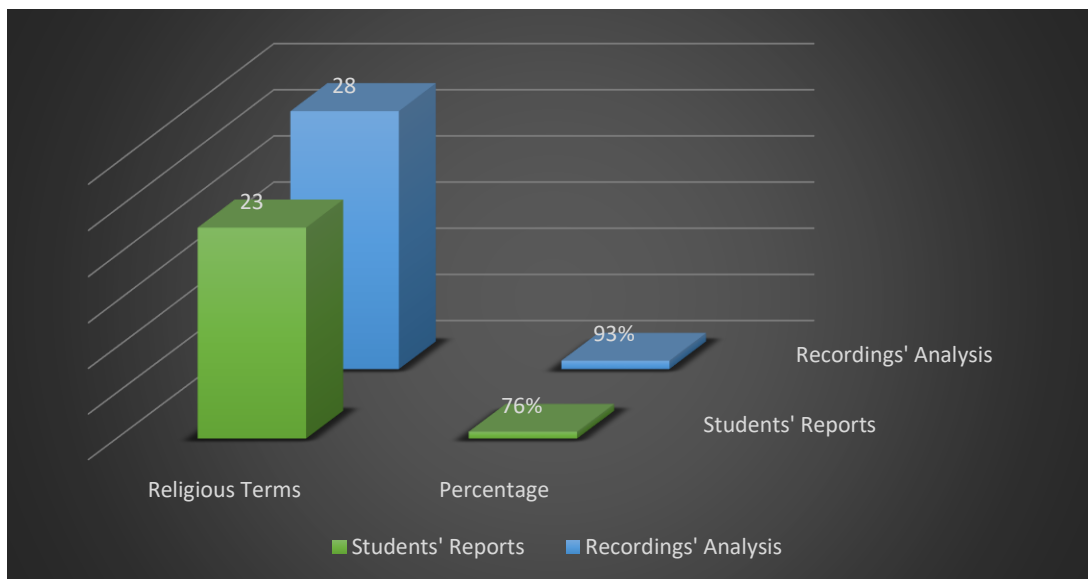
The differences in the analyses of novices' renderings and their reports regarding the interpretation of proverbs.



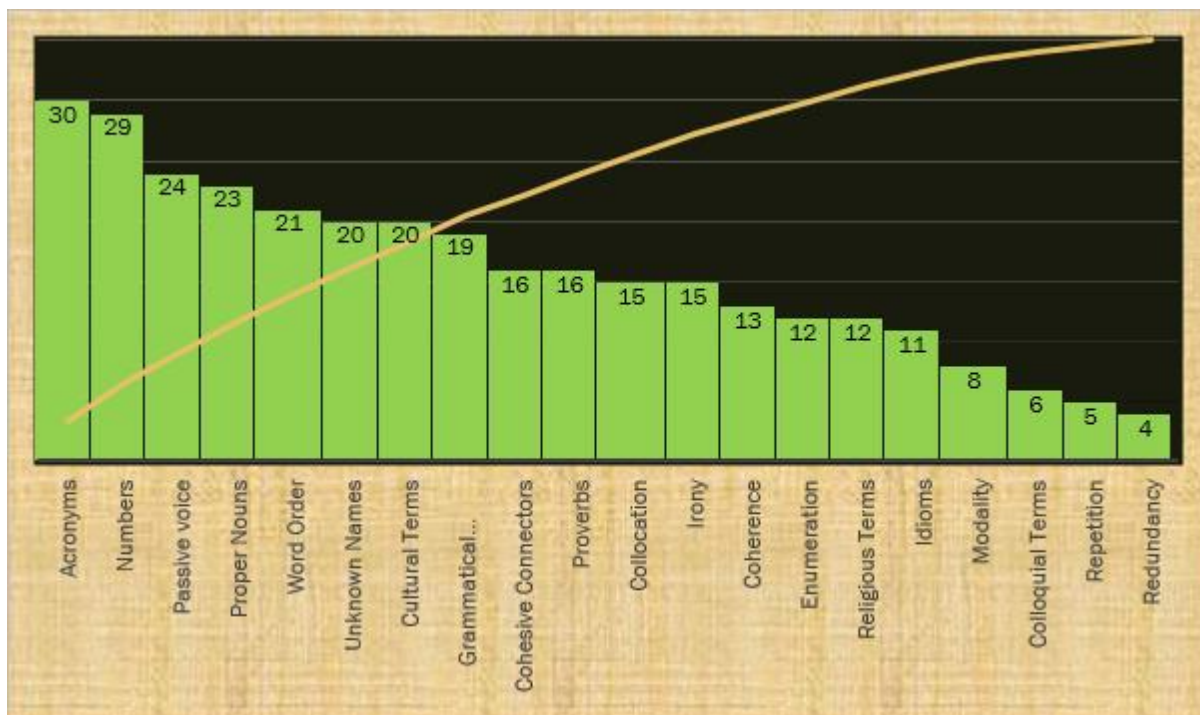
The differences in the analyses of novices' renderings and their reports regarding the interpretation of idioms.



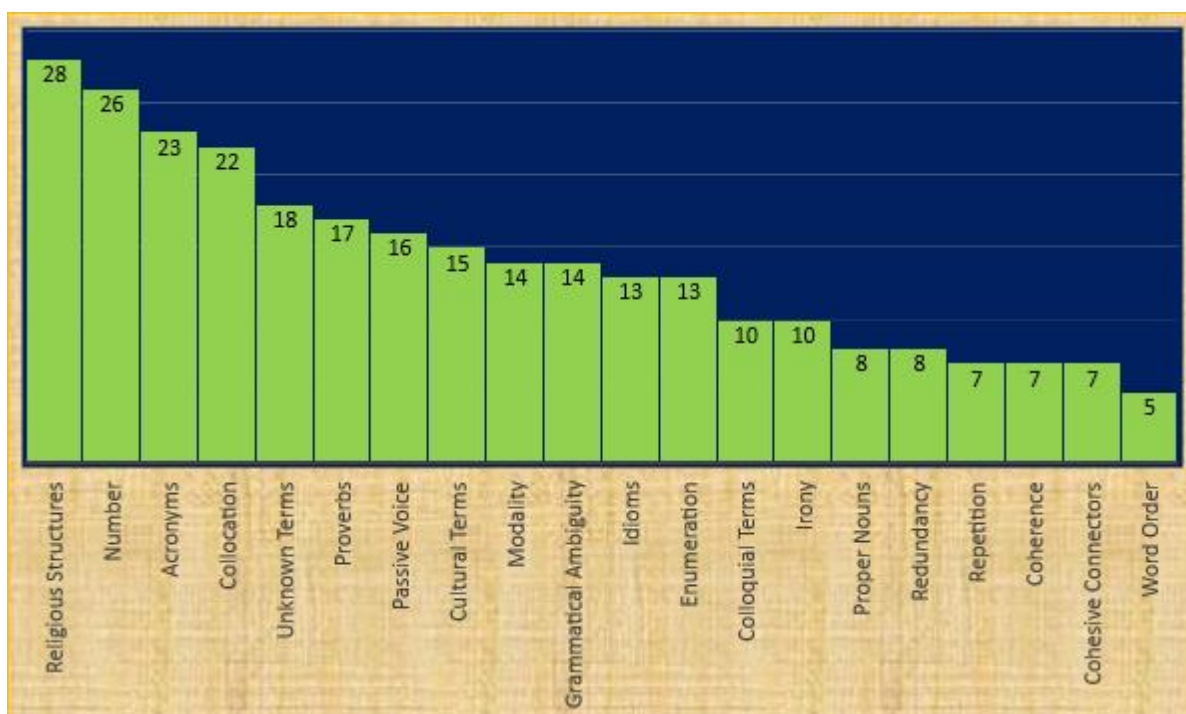
The differences in the analyses of novices' renderings and their reports regarding the interpretation of terms and structures with religious content.



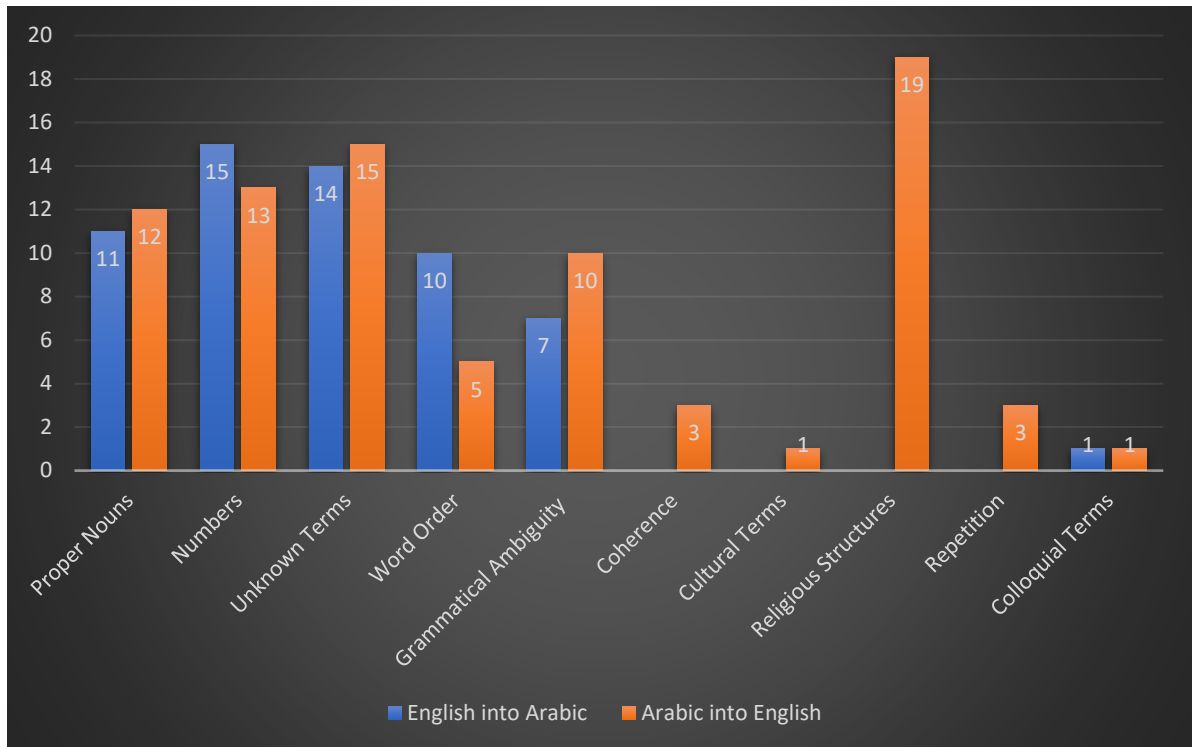
Main problems encountered by the novices during SI task from English into Arabic based on the analysis of their renderings



Main problems encountered by the novices during SI task from Arabic into English based on the analysis of their renderings.



Main problems encountered by the novices during both SI tasks based on the novices' reports (Q3 in the questionnaire).



Appendix 13

Examples of Novices' Solutions in the Pilot Study

Examples of Novices Solutions during English into Arabic Task

Examples of Skipping

S.	Source text	Target Text	Back Translation
PCT4 PEX14	The former US president Barack Obama during his presidency between 2009-2017 deported tens of thousands of people back to their countries	رَحَّلَ أوباما اثناء فترة رئاسته الالاف من المهاجرين الى بلدانهم	Obama has deported thousands of immigrants to their countries.
PCT14 PEX11	By the way, life here is not easy it is difficult and very difficult it could be a hell for some people. It's very expensive.	وبالمناسبة الحياة هنا ليست سهلة بل صعبة جدا وغالية	By the way, life here is not easy, it is very difficult and expensive.

Examples of summarizing

S.	Source text	Target Text	Back Translation
PCT14	We don't see a lot of full-blooded Americans picking oranges in San Francisco with pruning shears. We don't see Americans harvesting strawberries in Central California	لا نرى الأمريكيين يعملون في الزراعة في سان فرانسيسكو وكاليفورنيا وغيرها	We do not see Americans work in agriculture in San Francisco and California and in others
PEX3		لا نرى الأمريكيين يعملون في المزارع والاعمال البسيطة جدا	These interpretations relatively reflect the meaning of the source message

Examples of Anticipation

S.	Source Text	Target Text	Back Translation
PCT6	“God helps those who help themselves” as encouragement and also tell him “Be strong, and let your heart take courage, all you who wait for the LORD!”	دائما ما اخبر صديقي ان الله يساعد من يساعدون انفسهم فقط كن شجاعا	I always tell my friend that God help those who help themselves, only be strong
PCT8 PCT15	God helps those who help themselves”	دائما ما اخبر صديقي ان الله يساعد من يساعد نفسه الرب يستطيع مساعدة الأشخاص الذين يساعدون أنفسهم بأنفسهم	I always tell my friend that God help who help himself God can help those persons who help themselves by themselves

Examples of Approximation

S.	Source Text	Target Text	Back Translation
PEX12	it could be hell for some people	قد تكون مضره لبعض الأشخاص	It could cause harm for some persons
PCT1	America has tens of thousands of people who ...	هنالك العديد من المهاجرين غير القانونيين في امريكا	There are many illegal immigrants in America.

Examples of Incomplete Sentence

S.	Source Text	Target Text	Back Translation
PCT7	From my point of view controlling and patrolling the border	من وجهة نظري فإن السيطرة و.....	From my point of view to control and ...
PEX8	The former US president Barack Obama during his presidency between 2009-2017 deported tens of thousands	الرئيس باراك أوباما عندما كان يحكم	President Barack Obama when he was ruling

Examples of Literal Rendering

S.	Source Text	Target Text
PEX9	Let me tell you this, immigration is not a piece of cake	دعوني اخبركم ان الهجرة ليست قطعة كعك
PEX8	Refugees running away trying to look for safer and better life shouldn't be blamed	اللاجئين الفارين الباحثين عن حياة امن وأفضل يجب ان لا يلاموا

Examples of Code-Switching

S.	Source text	Target text	Back Translation
PCT14	they are taking jobs away from Americans	هم يأخذون الوظائف التي بحكها ان تكون للامريكيين	They take jobs which belong to Americans
	they are looking for jobs which are not even commensurate with their qualifications	يبحثون عن فرص وظيفية لاتناسب بينتهم ولا تناسبهم	They seek for job opportunities that do not commensurate them and their environment

Examples of Novices' Solutions during Arabic into English Task

Examples of Skipping

S.	Source Text	Target Text	Back Translation
PCT14	تصل نسبة النساء الى 49 من سكان العالم نعم % ما يقارب نصف سكان العالم	About half of the world are women	The ratio of women reaches to 49% of the total inhabitants in the world, which means half of the total world inhabitants.
PCT17	تسنت العديد من النساء مناصب مهمة في العديد من الدول العظمى حتى وصلن الى رئاسة الدولة او رئاسة الوزراء.	A lot of women have become presidents in many countries	Many women hold important positions in many great countries like the position of president and prime minister.

Examples of Summarising

S.	Source Text	Target Text	Back Translation
PCT4	ويجب علي ان اذكر المعمارية العراقية زها حديد "رحمها الله" التي اشتهرت في مجال التصميم المعماري ولها أعمال مهمة على الصعيد العالمي.	I have to mention the architect Zaha Hadid, she has important works globally	I have to mention the Iraqi late architect Zaha Hadid whose architectural designs are well known and she has important works globally
PCT9	ومنذ سبعينيات القرن الماضي بدأت المطالبات بحقوق المرأة تتزايد من قبل المنظمات والهيئات الدولية	Since the seventies, the demands of women's rights have increased internationally	Since the seventies of last century, the demands of women's rights have increased by international institutions and organizations.

Examples of Anticipation

S.	Source Text	Target Text	Back Translation
PCT9	والدليل على ذلك حصول الكثير من النساء على الشهادات العليا كالمجستير والدكتوراه في مختلف التخصصات	As an evidence a lot of women have Masters and PhDs in all majors	An evidence of that many women obtain high degrees such as Masters and PhDs in all fields
PEX3		An evidence of that women get high education like Master and PhD	An evidence of that many women obtain high degrees such as Masters and PhDs in all fields

Examples of Approximation

S.	Source Text	Target Text	Back Translation
PCT1	اسمحو لي أن اسلط الضوء علي ..	Let me talk about...	Let me shed light of an important subject
PCT2	في طبخ الأكلات التي نحبها	In cooking very delicious food	In cooking our favourite dishes

Examples of Incomplete Sentence

S.	Source Text	Target Text	Back Translation
PCT8	ولم تتوفر في حينها الأجهزة الحديثة كالمكنسة الكهربائية والغسالة الأوتوماتيكية والخ	there were no technology like ...	There were no technical devices like electrical vacuum, automatic laundry machine, etc.
PEX7 Plus 16 other Subjects	أذكركم بآية ذكرها الباري عز وجل " ووصينا الإنسان بوالديه حملته أمه وهنا على وهن	there is a script from Quran which says...	I should remind of the Quranic Ayah which says we have enjoined on man (to be good) to his parents: in travail upon travail did his mother bear him.

Examples of Literal Translation

S.	Source Text	Target Text	Back Translation
PCT4	اسمحوا لي أن اسلط الضوء علي موضوع مهم	Allow me to put light on a very important topic	Let me shed light on an important subject
PEX5	لا أحب شرب الحساء في الصباح الا من يديها	I do not like to drink soup except from her hands	I do not like to have soup except that she prepares.

Appendix 14

Examples of Expert's Renderings in the Pilot Study

Examples of Expert's renderings during English into Arabic task

Examples of Expert's renderings of English numbers into Arabic

Source Text	Target Text	Back Translation
Immigration in 21 st century which ...	اتحدث عن الهجرة في أمريكا في القرن العشرين	I talk about US immigration in the 20 th century
US was colonized by the British in 1606 A.D	omitted	-----

Examples of Expert's renderings of English Acronyms into Arabic

Source Text	Target Text	Back Translation
According to the IOM	حسب ال ال أي او ام ...	According to alalala iom
the US was colonized by the British in 1606 A.D.	skipped	-----

Examples of Expert's renderings regarding the word order differences between the SL and TL

Source text	Target Text	Back Translation
They would prefer to do jobs which may offer... a health insurance (SVO)	المهاجرون يوافقون على القيام بوظائف تملك تقدم تقدم تأمين طبي (SVO)	Immigrants agree to do jobs which have offer offer health insurance (SVO)
some of them may not pay taxes (SVO)	العديد من هؤلاء المهاجرين لا يدفعون ضرائب (SVO)	Many of these immigrants do not pay taxes (SVO)

Examples of Expert's renderings regarding the grammatically ambiguous structures

Source Text	Target Text	Back Translation
well they are taking jobs away from Americans” and they feel pissed off and ...	يقول الآخرون هؤلاء المهاجرون يأخذون الوظائف من الأميركيين ويشعرون بالغضب تجاه ذلك...	Others say those immigrants take Americans' jobs and they feel angry towards that...
they should leave and they must leave as the mayor of San Francisco believes	يجب ان يخرجوا ويعودوا الى مواطنهم وهذا ما يجب على محافظ سان فرانسيسكو ان يقوم	They should leave ....and that what should the mayor of Francisco do

Examples of Expert's renderings of English Passive voice into Arabic

Source Text	Target Text	Back Translation
Luckily that terminology was recently changed by the government	تم تغيير هذا المصطلح من قبل الحكومة	This terminology has been changed by the government
the issue of immigrant ...will not be solved	لن نجد حلا لموضوع المهاجرين في المستقبل	We will not find a solution for the immigrants' issue

Examples of Expert's renderings of English collocations into Arabic

Source Text	Target Text	Back Translation
...deleterious effect on the economy	...اثر كبيرة جدا على الاقتصاد	...very big effects on the economy
It is very arduous process	او قد تكون غالية لي	It could be expensive for me

Examples of Expert's renderings of English numerated expressions into Arabic

Source Text	Target Text	Back Translation
We have a lot of British , a lot of Irish , a lot of Italians , a lot of Germans , a lot of Russians , a lot of Chinese	العديد من المهاجرين البريطانيين والأيرلنديين والايطاليين والروسيين	A lot of British, Irish, Italians, Russians and immigrants.
Because it is very difficult , frustrating and offensive .	لأنه امر صعب ويدفع الناس لان يكونوا...	Because it is difficult and pushes people to be ...

Examples of Expert's renderings of English repeated structures into Arabic

Source Text	Target Text	Back Translation
Can you believe that? Can you believe that? Yes, that is true.	هل ممكن ان تصدقون ذلك نعم هذه حقيقة	Do you believe that? Yes, that is true.
Imagine that yes imagine it!	Skipped	-----
the bottom line is there should be a solution, there should be a solution	لا اعلم ما هو الحل لهذه المشكلة لكن النقطة الأساسية هو يجب ان نجد حل لهذه المشكلة	I do not know what is the solution for this problem. But, the bottom line is there should be a solution for this problem.

Examples of Expert's renderings of English redundant structures into Arabic

Source Text	Target Text	Back Translation
I remember when I paid a visit to a boyfriend there, I noticed that it was so busy with immigrants.	لاحظت انها تحتوي على العديد من المهاجرين	I noticed that it includes many immigrants

Examples of Expert's renderings of English culture specific terms and structures into Arabic

Source Text	Target Text	Back Translation
We don't see a lot of full-blooded Americans picking oranges	نحن لا نرى العديد الامريكان يقومون بهذه الوظائف	We do not see Americans do these jobs
I also still remember Donald Trump's words describing the immigrants as drug smugglers and rapists and their countries as shithole countries!	انا اتذكر أيضا كلمة وصف دونالد ترامب للمهاجرين بانهم مروجي للمخدرات ووصف بلدانهم بانها بلدان حقيرة وفقيرة وسينة	I still remember Donald Trump's words describing the immigrants as drug dealers and their countries as bad, poor, and contemptible countries.

Examples of Expert's renderings of English ironic structure into Arabic

Source Text	Target Text	Back Translation
a child runs away from someone throwing a water balloon at him and falls into the pool!	يمكنني تشبيه ذلك بطفل يحاول الهرب من شخص يحاول ان يرميه بكرة ماء لكي يسقط في مسبح	I can liken that as a child who tries to escape from someone who throws a water balloon on him in order to fall into the pool!

Examples of Expert's renderings of English idiomatic structures into Arabic

Source Text	Target Text	Back Translation
Once in a blue moon	مرة من الحين والآخر	Once from time to time
even when pigs fly	لن نجد حلا لموضوع المهاجرين بالمستقبل	We will not find a solution for the immigrants' issue in future

Examples of Expert's renderings of English terms and structures with religious content into Arabic

Source Text	Target Text	Back Translation
be strong, and let your heart take courage, all you who wait for the LORD	كن قويا وشجاعا وسوف يساعدك الله	Be strong, and brave and God will help you.

Appendix 15

Examples of Expert's Renderings during Arabic into English task

Examples of Expert's renderings of Arabic names into English

Source Text	Target Text	Back Translation
وهي التونسية فاطمة بنت محمد الفهري... نعم انها السيدة فاطمة بنت محمد الفهري	Fatma daughter of Mohammed Alfihmi. Yes, she was Tunisians her name was Fatma	The Tunisian Fatma Bint Mohammed Alfihry. Yes, she Mrs. Fatima Bint Mohammed Alfehry
وزيرة الدفاع البريطانية السيدة بيني موردونت	and the British defense ministry Mrs. Bordan	and the British defense ministry Mrs. Penny Mordaunt

Examples of Expert's renderings of Arabic numbers into English

Source Text	Target Text	Back Translation
عقد الاجتماع العالمي الأول عام 1975	The first convention was held in 1959 in Mexico	The first international meeting was held in 1975
تم تعيينها سفيرة لمنظمة التربية والثقافة والعلوم التابعة للأمم المتحدة "اليونسكو" في 2010	she was assigned as ambassador to the UNESCO in 2009	she was assigned as ambassador to... the UNESCO in 2010

Examples of Expert's renderings of Arabic Acronyms into English

Source Text	Target Text	Back Translation
حسب منظمة العمل الدولية ILO	According to ILO	According to International Labor Organization
تم تعيينها سفيرة لمنظمة التربية والثقافة والعلوم التابعة للأمم المتحدة "اليونسكو"	she was assigned as ambassador to the UNESCO	She was assigned as an ambassador in United Nations Educational, Scientific and Cultural Organization

Examples of Expert's renderings of Arabic Unknown expressions into English

Source Text	Target Text	Back Translation
في حينها الأجهزة الحديثة كالمكنسة الكهربائية والغسالة الأوتوماتيكية	no house appliances like a Hoover or a washing machine	There were no modern devices such as hoovers and washing machines
قادرة على قيادة المحارث والجرارات	they contribute in various tasks needed in agricultures	She can drive ploughs and tractors

Examples of Expert's renderings of word order differences between Arabic and English

Source Text	Target Text	Back Translation
بدأت المرأة تعمل بالتدريس	women started to work as teachers	Woman starts working in teaching
تساهم المرأة وبقوة في رفد المؤسسات التربوية	Women contribute greatly to enhance the researches	Woman contributes strongly in supporting the educational institutions

Examples of Expert's renderings of passive voice from Arabic into English

Source Text	Target Text	Back Translation
عقد الاجتماع العالمي الأول عام 1975	The first convention was held in ...	The first meeting has been held in 1975
وفيه تم سن قانون القضاء على كافة أشكال العنف ضد المرأة	in that convention a new regulation was drawn to eliminate...	In which a law has been enacted to eliminate all violence against woman.

Examples of Expert's renderings of collocations from Arabic into English

Source Text	Target Text	Back Translation
اسمحوا لي أن أسلط الضوء علي	Allow me to draw the attention to	Let me shed light on
تبذل المرأة جهودا كبيرة في..	Women make a lot of efforts in the	Women exerts a lot of efforts in...

Examples of Expert's renderings of enumerated expressions from Arabic into English

Source Text	Target Text	Back Translation
فهي الأم والأخت والزوجة والابنة والعمة والخالة	She is the mother, the sister, the wife, aunt, and daughter	She is the mother, sister, wife, aunt, and daughter

Examples of Expert's renderings of the modal verbs from Arabic into English

Source Text	Target Text	Back Translation
يجب علي ان اذكر زها حديد	I should mention Zaha ...	I should mention Zaha ...
نسبة النساء ... ممكن ان يصل إلى 50%	the percentage of women may be up to 50 percent	The percentage of women could reach 50%

Examples of Expert's renderings of the colloquial terms from Arabic into English

Source Text	Target Text	Back Translation
تقضي أوقات في المطبخ في طبخ الأكلات	cooking meals that we liked	She spends many time in cooking meals
وفي بالي المثل الذي يقول	An idiom that comes to my mind	In my mind , a proverb which says ...

Examples of Expert's renderings of the repeated expressions from Arabic into English

Source Text	Target Text	Back Translation
وهي التونسية فاطمة بنت محمد الفهري عام 877م نعم انها السيدة فاطمة بنت محمد الفهري	her name was Fatma daughter of Mohammed Alfihmi. Yes, she was Tunisian her name was Fatma	the Tunisian Fatma bintu Mohammed Alfehri in 877. Yes, she is Mrs. Fatma bintu Mohammed Alfehri

Examples of Expert's renderings of the redundant structures from Arabic into English

Source Text	Target Text	Back Translation
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حصول الكثير من النساء على الشهادات العليا كالمجستير والدكتوراه	an approve of that woman got higher degrees in various fields	Many women received high degrees such as Master and PhD
تم تعيينها سفيرة لمنظمة التربية والثقافة والعلوم التابعة للأمم المتحدة "اليونسكو" في 2010.	she was assigned as ambassador to the UNESCO in 2009.	She was assigned in United Nations Educational, Scientific, and Cultural Organization (UNESCO)

Example of Expert's rendering of the ironic structure from Arabic into English

Source Text	Target Text	Back Translation
مع الأسف ان نسمع بعض الجهلاء ينتقدون المرأة ويصفوها بالضعف فهل يجوز هذا ام هو الدهاء الذي وصل إليه البعض؟ وأخيرا أذكركم بآية	we hear a lot of people criticize and describe them as being weak. I would like to conclude my speech by	Unfortunately, we hear some ignorant people who criticize women and describe her with weakness. Do you believe that or is it the adroitness of some people? Finally, I would ...

Example of Expert's rendering of the proverb from Arabic into English

Source Text	Target Text	Back Translation
خلف كل رجل عظيم امرأة تقف بجانبه في السراء والضراء	behind every great man there is a woman that stands by him in good and bad times	Behind every great man a woman stands beside him in good and bad times

Example of Expert's rendering of the idiomatic structure from Arabic into English

Source Text	Target Text	Back Translation
وتساهم المرأة في بناء الأجيال	She contributes to the enhancement of generation	She contributes in raising the generations

Examples of Expert's rendering of the terms and structures with religious content from Arabic into English

Source Text	Target Text	Back Translation
السلام عليكم ورحمة الله	Hello	Peace be upon you
صلاة الفجر	Dawn prayer	Dawn prayer

Appendix 16

Strategies Applied by the Expert in the Pilot Study

Strategies Applied by the Expert in English into Arabic Task

Examples of Expert's Use of Skipping

Source Text	Target Text	Back Translation
believe me! Believe me there's a reason that America is known as...	صدقوني عندما أقول لكم ان أمريكا توصف بكونها	Believe me, when I tell you that America is described as a ...
Can you believe that? Can you believe that? Yes, that is true	هل ممكن ان تصدقون ذلك نعم هذه حقيقة	Can you believe that? Yes, that is true

Examples of Expert's Use of Approximation

Source Text	Target Text	Back Translation
the crises in these countries have led people to flee to find a better life	هذه البلدان تحتوي على مشاكل دفعت سكانها للهجرة بحثا عن ظروف أفضل	These countries have issues that led their people to migrate to find better circumstances
Unfortunately, America has tens of thousands of people who are what we call undocumented immigrants	ولكن من سوء الحظ انه يوجد في أمريكا العديد من المهاجرين او الالاف من المهاجرين غير الشرعيين او المهاجرين غير المسجلين	Unfortunately, in America there are many immigrants or thousands of illegal or unregistered immigrants

Examples of Expert's Use of Summarising

Source Text	Target Text	Back Translation
America is known as the great melting pot because we have people from pretty much all over the world here. Of course, the US was colonized by the British in 1606 A.D.	ان أمريكا توصف بكونها انها تمثل امتزاج المهاجرين ذلك ان أمريكا تكونت من العديد من العديد من المهاجرين البريطانيين والأيرلنديين والايطاليين والروسيين والصينيين	America is considered a mixture of immigrants because America is formed by many British, Irish, Italians, Russians, and Chinese immigrants.

We have a lot of British, a lot of Irish, a lot of Italians, a lot of Germans, a lot of Russians, a lot of Chinese.		
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Strategies Applied by the Expert in Arabic into English Task

Examples of Expert's Use of Skipping

Source Text	Target Text	Back Translation
تصل نسبة النساء الى 49% من سكان العالم نعم ما يقارب نصف سكان العالم حسب منظمة العمل الدولية ILO	women are almost 50 percent of world population according to ILO	The percentage of women reaches to 49% of world which is about half of the total world's population according to ILO
تعيينها سفيرة لمنظمة التربية والثقافة والعلوم التابعة للأمم المتحدة "اليونسكو"	she was assigned as ambassador to the UNESCO	She was assigned as ambassador to the United Nations Educational, Scientific and Cultural Organization

Examples of Expert's Use of Approximation

Source Text	Target Text	Back Translation
اسمحوا لي أن اسلط الضوء علي..	Allow me to draw the attention to...	Let me shed light on the
تصل نسبة النساء الى 49% من سكان العالم	women are almost 50% of world population	Women are almost 49% of the world population

Examples of Expert's Use of Summarising

Source Text	Target Text	Back Translation
بدأت المطالبات بحقوق المرأة تتزايد من قبل المنظمات والهيئات الدولية	women right movements started internationally	Calls for women's rights have been increased by international organizations and bodies.

<p>تساهم المرأة وبقوة في رفق المؤسسات التربوية والتعليمية بالبحوث والدراسات التي تعمل على رفع مستوى البحث العلمي. والدليل على ذلك حصول الكثير من النساء على الشهادات العليا كالمجستير والدكتوراه في مختلف التخصصات</p>	<p>Women contribute greatly to enhance the researches of the institutions and colleges and universities approve of that women get of higher degrees in various fields</p>	<p>Women contribute greatly to enhance the educational institutions with studies and researches which support the scientific research. An evidence of that many women obtain Master and PhD degrees in various fields.</p>
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Examples of Expert's Use of Literal Translation

Source Text	Target Text	Back Translation
لا أحب شرب الحساء في الصباح	I don't like to drink ...to ... in the morning	I do not like to have soup in the morning.
أتذكر أيضا أنها كانت تستيقظ منذ صلاة الفجر لتبدأ رحلة التنظيف	I also remember that she used to wake up at dawn prayer to start with house hold chores	I also remember that she used to wake up early to start the household chores

Appendix 17

Analysis of Experts' Reports Regarding the Problem Identification in Both SI Tasks during English into Arabic SI task

Analysis of Experts' Reports Regarding Problem Identification during English into Arabic SI task

Experts' reports regarding the problems encountered during the rendering of English proper names into Arabic.

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	
P1		1														1
P2																
P3																
P4																
P5																
Total		1														1

Expert's reports regarding the problems encountered during rendering English numbers into Arabic

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	
P1	7															7
P2	1															1
P3																
P4																
P5													1			1
Total	8												1			9

Experts' reports regarding the problems of rendering English passive voice into Arabic.

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	

					(bgkn)												
P1																	
P2																	
P3			2														2
P4																	
P5																	
Total			2														2

Experts' reports regarding the problems of rendering English collocations into Arabic.

S.	Comprehension					Translation		Simultaneity		Monitoring						Total	
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id		
P1		1						2									3
P2		2															2
P3		5															5
P4						1											1
P5		1						1									2
Total		9				1		3									13

Experts' reports regarding the problems of rendering English cultural terms and structures into Arabic.

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	
P1															6	6
P2		1				1									2	4
P3						3										3
P4	2	1														3
P5	2	1				2										5
Total	4	3				6									8	21

Experts' reports regarding the problems of rendering English terms and structures with religious content into Arabic.

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	

P1						2								1	3
P2		3						1						2	6
P3	1							2						1	4
P4		5											1		6
P5							3								3
Total	1	8				2	3	3					1	4	22

Experts' total reports regarding the problems encountered in the English into Arabic task.

Category	Number of Reports	Percentage
comprehension	36	55%
translation	8	12%
Simultaneity	7	11%
Monitoring	14	22%
Total	65	100%

Analysis of Experts' Reports Regarding the Problem Identification during Arabic into English SI Task

Experts' reports regarding the problems of rendering Arabic proper names into English.

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	
P1	1							1								2
P2																
P3																
P4	1															1
P5								1								1
Total	2							2								4

Experts' reports regarding the problems of rendering Arabic numbers into English.

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	
P1	1							1								2
P2																
P3																
P4	1															1
P5								1								1
Total	2							2								4

Experts' reports regarding the problems of rendering Arabic passive voice into English

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	
P1															2	2
P2																
P3		1													3	4
P4																
P5															1	1
Total		1													6	7

Experts' reports regarding the problems of rendering Arabic collocations into English.

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	
P1	1	1					1									3
P2							1									1
P3	4															4
P4	1	1														2
P5		1					1									2
Total	6	3					3									12

Experts' reports regarding the problems of rendering Arabic cultural terms and structures into English.

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	
P1							1									1
P2																
P3	3						1									4
P4	3															3
P5			1							1						2
Total	6		1				2			1						10

Experts' reports regarding the problems of rendering Arabic terms and structures with religious content into English.

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	
P1		1					2								2	5
P2							1									1
P3		3					1	2								6
P4	1	3				1										5
P5	1	2														3
Total	2	9				1	4	2							2	20

Experts' reports regarding the problems during the SI task from Arabic into English.

Category	Number of Reports	Percentage
comprehension	32	56%
translation	10	18%
Simultaneity	6	11%
Monitoring	9	15%
Total	57	100%

Appendix 18

Analysis of Experts' Study

Analysis tables of experts' renderings of English names into Arabic

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Marie David	ميري ديفد	Marie David	✓		
P2		ميري ديفد	Marie David	✓		
P3		ميري ديفد	Marie David	✓		
P4		ميري ديفد	Marie David	✓		
P5		ميري ديفد	Marie David	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	San Francisco	كاليفورنيا	California		✓	
P2		سان فرانسيسكو	San Francisco	✓		
P3		سان فرانسيسكو	San Francisco	✓		
P4		سان فرانسيسكو	San Francisco	✓		
P5		سان فرانسيسكو	San Francisco	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Egypt	مصر	Egypt	✓		
P2		مصر	Egypt	✓		
P3		مصر	Egypt	✓		
P4		مصر	Egypt	✓		
P5		مصر	Egypt	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	United States	الولايات المتحدة	United States	✓		
P2		الولايات المتحدة	United States	✓		
P3		الولايات المتحدة	United States	✓		

P4		الولايات المتحدة	United States	✓		
P5		الولايات المتحدة	United States	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Mexico	المكسيك	Mexico	✓		
P2		المكسيك	Mexico	✓		
P3		المكسيك	Mexico	✓		
P4		المكسيك	Mexico	✓		
P5		المكسيك	Mexico	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Honduras	الهندوراس	Honduras	✓		
P2		الهندوراس	Honduras	✓		
P3		الهندوراس	Honduras	✓		
P4		الهندوراس	Honduras	✓		
P5		الهندوراس	Honduras	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	The New York Times	نيويورك تايمز	The New York Times	✓		
P2		نيويورك تايمز	The New York Times	✓		
P3		نيويورك تايمز	The New York Times	✓		
P4		نيويورك تايمز	The New York Times	✓		
P5		نيويورك تايمز	The New York Times	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Washington post	واشنطن بوست	Washington post	✓		
P2		واشنطن بوست	Washington post	✓		
P3		واشنطن بوست	Washington post	✓		

P4		واشنطن بوست	Washington post	✓		
P5		واشنطن بوست	Washington post	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Wall Street	وول سٽريٽ	Wall <u>S</u> treet	✓		
P2		وول سٽريٽ	Wall <u>S</u> treet	✓		
P3		وول سٽريٽ	Wall <u>S</u> treet	✓		
P4		وول سٽريٽ	Wall <u>S</u> treet	✓		
P5		وول سٽريٽ	Wall <u>S</u> treet	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Obama	اوباما	Obama	✓		
P2		اوباما	Obama	✓		
P3		اوباما	Obama	✓		
P4		اوباما	Obama	✓		
P5		اوباما	Obama	✓		

Appendix 19

Analysis tables of experts' renderings of English numbers into Arabic

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Thousands of years	الاف السنين	Thousands of years	✓		
P2		الاف السنين	Thousands of years	✓		
P3		الاف السنين	Thousands of years	✓		
P4		الاف السنين	Thousands of years	✓		
P5		الاف السنين	Thousands of years	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Approximately 220 million are ...	مايقارب 220 مليون	Thousands of years	✓		
P2		مايقارب 220 مليون	Thousands of years	✓		
P3		مايقارب 220 مليون	Thousands of years	✓		
P4		مايقارب 220 مليون	Thousands of years	✓		
P5		مايقارب 220 مليون	Thousands of years	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	which means 3% of the world	يعني ان 30% من سكان العالم	means 30% of world population			✓
P2		يعني ان نسبة 3% من السكان هم	means 3% of the population	✓		
P3		3% من سكان العالم من النساء	means 3% of the world	✓		
P4		مما يعني 30% عفا 3%	means 30% sorry 3% of	✓		
P5		مما يعني ان 3% من سكان العالم ..	means 3% of the world	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Immigrants...transfer 12 billion dollars	المهاجرون يحولون 112 مليار	Immigrants...transfer 12 billion dollars	✓		
P2		112 مليار دولار يحولها المهاجرون	Immigrants...transfer 12 billion dollars	✓		
P3		ينقل المهاجرون 112 مليار دولار	Immigrants...transfer 12 billion dollars	✓		
P4		يحول المهاجرون 112 مليار دولار	Immigrants...transfer 12 billion dollars	✓		
P5		112 مليار دولار حجم التحويل	Immigrants...transfer 12 billion dollars	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	the US was colonized .. in 1606	كانت مستعمرة إنكليزية سابقا	Immigrants...transfer 12 billion dollars			✓
P2		لقد استعمر البريطانيون الولايات المتحدة عام 1606	Immigrants...transfer 12 billion dollars	✓		
P3		استعمر البريطانيون امريكا عام 1606	Immigrants...transfer 12 billion dollars	✓		
P4		الولايات المتحدة خضعت للاستعمار البريطاني عام 1606	Immigrants...transfer 12 billion dollars	✓		
P5		والبريطانيون قد استعمروا الولايات المتحدة	Immigrants...transfer 12 billion dollars			✓

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	number of immigrants in	عدد المهاجرين في امريكا 89 مليون	The number of immigrants is 89 million		✓	
P2		هناك عددا هائلا من المهاجرين	There is a huge number of immigrants		✓	
P3		ان عدد المهاجرين في امريكا هو 89.4 مليون	The number of immigrants is 89.4 million	✓		

P4	... is 89.4 million	ان عدد المهاجرين في امريكا هو 89.4 مليون	The number of immigrants is 89.4 million	✓		
P5		المهاجرين في امريكا عددهم هو 89.4 مليون	Immigrants...in America is 89.4 million	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Obama's presidency 2009-2017	فترة رئاسة اوباما عام 2018	During Obama's presidency in 2018			✓
P2		خلال حكم اوباما بين عامي 2009 و 2017	During Obama's presidency between 2009 and 2017	✓		
P3		خلال راسة اوباما بين عامي 2009 و 2017	During .. between 2009 and 2017	✓		
P4		اخلال رئاسة اوباما خلال عامي 2009 و 2017	During .. between 2009 and 2017	✓		
P5		المهاجرين في امريكا عددهم هو 89.4 مليون	During .. between 2009 and 2017	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	there are tens of thousands of	عشرات الالاف من ..	there are tens of thousands of	✓		
P2		عشرات الالاف من ..	there are tens of thousands of	✓		
P3		عشرات الالاف من ..	there are tens of thousands of	✓		
P4		عشرات الالاف من ..	there are tens of thousands of	✓		
P5		عشرات الالاف من ..	there are tens of thousands of	✓		

Appendix 20

Analysis Tables of Experts' Renderings of English Passive Voice into Arabic

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Immigration was regarded as help	كانت الهجرة تساعد الدول النامية	Immigration was considered as a help for the developing countries	✓		
P2		كانت الهجرة مساعدة تساعد الدول النامية	Immigration was helping helps the developing countries	✓		
P3		كانت الهجرة تعتبر بمثابة مساعدة	Immigration was considered as a help for ...	✓		
P4		الهجرة كانت تعتبر وسيلة للبلدان النامية	Immigration was considered means for developing countries		✓	
P5		ال ال كانت الهجرة تساعد البلدان النامية	Al Al immigration was helping the developing countries	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	US was colonized by British	كانت مستعمرة إنكليزية سابقا	It was an English colony in the past	✓		
P2		لقد استعمر البريطانيون الولايات المتحدة	The British have colonized the US	✓		
P3		استعمر البريطانيون امريكا	The British colonized America	✓		
P4		الولايات المتحدة خضعت للاستعمار البريطاني	The United States were subjugated by the British colonization		✓	
P5		والبريطانيون قد استعمروا الولايات المتحدة	The British have colonized the US		✓	

S.	Source Text	Target Text	Back translation	A.	M.	I.
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P1	Who used to be called illegal immigrants	وهناك من يناديهم بعد بالمخالفين	There are others who even call them illegal immigrants	✓		
P2		كانوا يسمون غير المهاجرين القانونيين	They were called illegal immigrants	✓		
P3		والذين كان يطلق عليهم سابقا المهاجرين	They were previously called immigrants	✓		
P4		كانوا يسمون سابقا مهاجرين غير قانونيين	They were previously called illegal immigrants	✓		
P5		الذين نطلق عليهم مهاجرين غير حائزين على الوثائق الثبوتية	Those who we call immigrants with no supporting documents	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Terminology has been changed by Government	-----	-----			✓
P2		وقد تغيرت هذه المصطلحات من طرف الحكومة	These terms have been changed by the government		✓	
P3		هذه المصطلحات تم تغييرها مؤخرا من قبل الحكومة	These terms have been recently changed by the government		✓	
P4		تغيرت هذه المصطلحات مؤخرا من قبل الحكومة	These terms have been recently changed by the government		✓	
P5		تم تغيير هذه المصطلحات لحسن الطالع من قبل الحكومة	Fortunately, these terms have been changed by the government		✓	

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Tens of thousands of immigrants were allowed to live in States	عشرات الالاف من المهاجرين سمح لهم بالبقاء	Thousands of immigrants were allowed to stay in the States	✓		
P2		العشرات من الالاف من المهاجرين سمح لهم بالإقامة في الولايات المتحدة	Thousands of immigrants were allowed to reside in the United States	✓		
P3		سمح لعشرات الالاف المهاجرين بالعيش في الولايات المتحدة	Thousands of immigrants were allowed to live in the United States	✓		

P4		عشرات الاف من المهاجرين سمح لهم ان يعيشوا في الولايات المتحدة	Thousands of immigrants were allowed to live in the United States	✓		
P5		العشرات الالاف من المهاجرين سمح لهم بالعيش في الولايات المتحدة	Thousands of immigrants were allowed to live in the United States	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	It was deemed unfair	.....	.....			✓
P2		اذ اعتبرنا انه من الظلم	If we consider it unfair	✓		
P3		وتم اعتباره انه من غير العادل	It is considered unfair	✓		
P4		وتعتبر ظالمة فقط لأنهم لا يملكون وثائق	It is considered unfair only if ...	✓		
P5		وأصبح من غير المنصف ان يتم الإشارة اليهم بأنهم	It becomes unfair that ..	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	The issue is frequently addressed	مسألة المهاجرين تم تداولها مؤخرا	The issue of immigrants has been recently addressed	✓		
P2		مسألة المهاجرين كثيرا ما تلقى تداول لا لها	The issue of immigrants has mainly been received importance	✓		
P3		كثيرا ما يتم التعامل مع قضية المهاجرين	The issue of immigrants has often been received special importance	✓		
P4		غالبا ما يتم التطرق في وسائل الاعلام الأمريكية الى قضية المهاجرين	The issue of immigrants has been addressed in American media	✓		
P5		مسألة المهاجرين كثيرا ما يتم التعامل معها في صحف عناوين الأمريكية	The issue of immigrants has been addressed in American headlines	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Immigration is considered a problem	أصبح الامر مزعجا للدول	It becomes an annoying issue for many governments	✓		
P2		تعتبر الهجرة مشكلة للكثير من الحكومات	It is considered a problem for many governments	✓		
P3		تعتبر كثيرا مشكلة	It is considered a problem	✓		
P4		غالبا ما تعتبر الهجرة مشكلة للكثير من الحكومات	It is considered a problem for many government	✓		
P5		ولكن في العالم الحديث الهجرة كثيرا ما ينظر اليها بوصفها مشكلة	In the modern world, immigration is considered a problem	✓		

Appendix 21

Analysis Tables of Experts' Renderings of English Collocations into Arabic

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Myriads of Africans	اعداد كبيرة من الافارقة	Huge numbers of Africans	✓		
P2		افارقة	Africans		✓	
P3		عدد كبير من الناس	Big number of Africans	✓		
P4		الكثير من الافارقة	Big number of people	✓		
P5		عدد كبير من الافارقة	Big number of Africans	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Crowds of undocumented immigrants	هنالك العشرات الالاف في أمريكا من المخالفين	There are tens of thousands of those illegals in America		✓	
P2		-----	-----			✓
P3		الكثير من هؤلاء الأشخاص الذين لا يحملون وثائق	Many of those who do not have documents		✓	
P4		هنالك العشرات الالاف الناس في أمريكا الذين يعتبرون مهاجرين غير موثقين	There are thousands of immigrants in the US, who are considered undocumented immigrants.		✓	
P5		هنالك مجموعة من غير الموثقين	There are a group of undocumented		✓	

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	exert a lot of effort	يجتهدون كثيرا	Work hard		✓	
P2		يحاولون كثيرا	Try a lot		✓	
P3		يبذلون جهودا كبيرة	They exert big efforts	✓		
P4		يبذلون جهودا كثيرة	exert a lot of effort	✓		

P5		يبدلون جهودا كبيرة	exert a lot of effort	✓		
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S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	detrimental effects			✓
P2		اثر سلبية	Negative effects	✓		
P3		اثر سلبية	Negative effects	✓		
P4		الاثار السلبية	Negative effects	✓		
P5		الاثار السلبية	Negative effects	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Arduous process	عملية متعبة	Cumbersome process		✓	
P2		عملية صعبة	It is a difficult process		✓	
P3		عملية متعبة	Cumbersome process		✓	
P4		عملية صعبة	difficult process		✓	
P5		هي عملية شاقة جدا	A very arduous process	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	I paid a visit to my boyfriend	.....	.....			✓
P2		زرت صديقي	I visited my friend	✓		
P3		زرت صديقي	I visited my friend	✓		
P4		زرت رفيقي	I visited my friend	✓		
P5		قمت بزيارة صديقي	I have visited my friend	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	It is not a piece of cake	ليست سهلة	It is not easy	✓		
P2		امرا صعبا وصعب المنال	It is difficult and cannot be done	✓		
P3		انها ليست بهذه السهولة	It is not as easy as it is now	✓		

P4		ليست بالسهلة	It is not easy	✓		
P5		وانه ليس بتلك السهولة	It is not as easy as it is	✓		

Appendix 22

Analysis Tables of Experts' Renderings of English Culture Specific Terms and Structures into Arabic

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	hello	أهلا	welcome		✓	
P2		مرحبا	hello	✓		
P3		مرحبا	hello	✓		
P4		مرحبا	hello	✓		
P5		مرحبا	hello	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Immigrants feel at home	.....	.....			✓
P2		يمضون ويقضون	Feel free to do whatever they want		✓	
P3		العديد من المهاجرين يشعرون كأنهم في بيوتهم	Many immigrants feel as if they were at their houses		✓	
P4		الكثير من المهاجرين يشعرون أنهم في ديارهم	Many immigrants feel like they were at their houses		✓	
P5		بلدان المقصد هي منزلهم وموطنهم	The receiving countries as their home		✓	

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Melting pot	ميلتتك بوت	Melting pot in Arabic accent			✓
P2		مركز الانصهار	melting center	✓		
P3		بوتقة الانصهار	Melting pot	✓		
P4		بوتقة الانصهار	Melting pot	✓		
P5		بوتقة الانصهار	Melting pot	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Bloody documents	.....	.....			✓
P2		الوثائق الرسمية	Official documents	✓		
P3		الوثائق اللعينة	Damn documents		✓	
P4		الوثائق الرسمية	Official documents	✓		
P5		وثائق	Documents	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Full-blooded Americans	الامريكان	Americans		✓	
P2		الامريكان	Americans		✓	
P3		الامريكيين	Americans		✓	
P4		الامريكيين	Americans		✓	
P5		الاميركيين الأصليين	Original Americans	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	selling hot-dogs in the street	-----	-----			✓
P2		-----	-----			✓
P3		بييعون النقانق في الشوارع	They sell hot-dogs on the streets	✓		
P4		بييعون الاطعمة في الطرقات	They sell food on the high ways	✓		
P5		بييعون الهوت دوك في الشوارع	They sell hot-dogs on the streets			✓

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	can be hell for some people	وكالجحيم بالنسبة لبعضهم	It can be hell for some people	✓		
P2		وقد تكون كالعيش في الجحيم لبعض	As if they were living in hell	✓		
P3		ويمكن ان تكون جحيم لبعض الناس	It can be hell for some people	✓		
P4		وقد تمثل جحيما لبعض الناس	It represents hell for some people	✓		
P5		.....	.....			✓

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	The lion's share	نصيب الأسد	The lion's share	✓		
P2		حصة الأسد	The lion's share	✓		
P3		حصة الأسد	The lion's share	✓		
P4		حصة الأسد	The lion's share	✓		
P5		نصيب الأسد	The lions' share	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	To my boyfriend	.....	.....			✓
P2		صديقي	My friend	✓		
P3		رفيقي	My comrade	✓		
P4		صديقي	My friend	✓		
P5		صديقي	My friend	✓		

Appendix 23

Analysis Tables of Experts' Renderings of English Terms and Structures with Religious Content into Arabic

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	denounced as a sin	.....	.....			✓
P2		وصفها البعض بالخطيئة	someone described it as a sin	✓		
P3		بأنها خطيئة تم اعتبارها	As a sin, it was described	✓		
P4		خطيئة واعتبروها	As a sin and described	✓		
P5		بوصفها خطأ والبعض راها خطيئة	It was described as an error and others consider it a sin	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	the land of milk and honey	ارض العسل والحليب	Land of honey and milk	✓		
P2		ال ال العسل والملبن	Al Al .....the honey and malban			✓
P3		ارض الحليب والعسل	Land of milk and honey	✓		
P4		ارض الفرص	Land of opportunities	✓		
P5		ارض العسل والحليب	Land of honey and milk	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	it seems like heaven	هي حلم	It is a dream	✓		
P2		امرا صعبا وصعب المنال	It is very difficult and even impossible	✓		
P3		تبدو وكأنها الجنة	It seems like paradise		✓	
P4		تبدو فرصة رائعة	It seems a great opportunity	✓		
P5		وكانها الجنة	It looks like a paradise		✓	

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	with the patience of a saint	-----	-----			✓
P2		-----	-----			✓
P3		يعملون بجد وصبر قديس	Work hard with a saint's patience		✓	
P4		يعملون بصبر	Work with patience		✓	
P5		ويعملون بكل صبر وكأنهم ملائكة	They work with patience like angels	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Be strong, and let your heart take courage, all you who wait for the LORD!"	كونوا أقوياء ودع قلبك قوي	Stay strong and let your heart be strong too.		✓	
P2		ان يبقوا شجعانا وان ينتظروا...مساعدة الرب	They should stay powerful and wait.....God's help.		✓	
P3		كونوا أقوياء ولتتحدى قلوبكم بالقوة كلكم من تنتظرون ربكم	Stay strong and let your hearts be powerful, you all wait for your God.		✓	
P4		كونوا شجعان تحلو بالقوة والشجاعة...وإذا صبرتم ستجدون	Stay brave and powerful...if you try the patience you will be rewarded.		✓	
P5		انهم يجب ان يتحلوا بالشجاعة والقوة	They should be brave and powerful.	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1	Serve in churches during Sunday's mass	أيام الاحد	Sundays		✓	
P2		يوم الاحد	On Sunday		✓	
P3		قداس الاحد	Sunday mass	✓		
P4		يوم الاحد	On Sunday		✓	
P5		قداس الاحد	Sunday mass	✓		

S.	Source Text	Target Text	Back translation	A.	M.	I.
P1		أتذكر كلمات قسيس للمهاجرين	I remember the words of priest to immigrants		✓	

P2	I remember the words of a bishop	سمعت احد يوصي المهاجرين	I heard someone advises the immigrants		✓	
P3		أتذكر كلمات الاسقف للمهاجرين	I remember the bishop's words	✓		
P4		وانا اذكر ان اسقفا قال للمهاجرين	I remember when a bishop said to the immigrants	✓		
P5		أتذكر أحد رجال الدين يقول	I remember one of the clergymen says	✓		

Appendix 24

Nature of Experts' Inadequate Renderings during English into Arabic SI Task

Examples of Experts' inadequate renderings of English numbers into Arabic

S.	Source Text	Target Text	Back Translation
P1	which means 3% of the world	وهذا يعني ان 30% من سكان العالم	Which means 30% of world population
	Obama's presidency 2009 -2017	خلال حكم اوباما بين عامي 2009 و 2017	During Obama's presidency in 2018

Examples of Experts' inadequate renderings of English passive voice into Arabic

S.	Source Text	Target Text	Back Translation
P1	Terminology has been changed by Government	.....	.....
	It was deemed unfair	.....	.....

Examples of Experts' inadequate renderings of English collocations into Arabic

S.	Source Text	Target Text	Back Translation
P2	Crowds of undocumented immigrants	.....	.....
P1	detrimental effects	.....	.....
	I paid a visit to my friend	.....	.....

Examples of Experts' inadequate renderings of English culture specific terms and structures into Arabic

S.	Source Text	Target Text	Back Translation
P1	Immigrants feel at home	.....	.....

P3	bloody documents	الوثائق اللعينة	Damn documents
P1	I paid a visit to my friend	.....	.....
	selling hot-dogs in the street	.....	.....
	to my boyfriend	.....	.....

Examples of Experts' inadequate renderings of English terms and structures with religious content into Arabic

S.	Source Text	Target Text	Back Translation
P1	denounced as a sin	.....	.....
	with the patience of a saint	.....	.....
P2	with the patience of a saint	.....	.....
	the land of milk and honey	ال ال العسل والملبن	Al Al .....the honey and malban

Appendix 25

Experts' Strategies during English into Arabic SI Task

Experts' strategies during rendering English names into Arabic

S.	Source Text	Target Text	Back Translation	Strategy
P1	San Francisco	كاليفورنيا	California	Generalization
P2	Wall Street	مجلة الـوول ستريت	Wall Street Journal	Addition

Experts' strategies during rendering English numbers into Arabic

S.	Source Text	Target text	Back translation	Strategy
P5	Approximately 220 million people are immigrants, 3% of the world's population.	وهذا لأن 30 بالمئة عفوا 3 بالمئة	This is because 30% sorry 3%	Repair
P1	the US was colonized by the British in 1606	كانت مستعمرة إنكليزية سابقا	It was an English colony in the past	generalization
P5		قد استعمروا الولايات المتحدة في الماضي	They have colonized the US in the past	generalization
P1	The total estimated number of immigrants in	فالمهاجرين 89 مليون	Immigrants are 89 million	approximation
P2	the USA is 89.4 million	وان عدد المهاجرين في الولايات المتحدة عددا هائلا	The number of immigrants in the US is a huge number	generalization

Experts' strategies during rendering English collocations into Arabic

Source text	S.	Target text	Back translation	Strategy
	P2	الافارقة	the Africans	skipping

myriads of Africans	P3	عدد كبير من الناس	Huge number of people	generalization
	P5	الكثير من الافارقة	Many Africans	Generalization
exert a lot of effort	P1	يجتهدون كثيرا	work very hard	approximation
	P2	يحاولون كثيرا	try a lot	approximation
arduous process	P1	عملية متعبة	tired process	approximation
	P2	عملية صعبة	hard process	approximation
	P3	عملية متعبة	tired process	approximation
	P4	عملية صعبة	hard process	Approximation
It is not a piece of cake	P1	ليست سهلة	It is not easy	inferencing
	P2	امرا صعبا وصعب المنال	It is difficult and very difficult to be done	inferencing
	P3	انها ليست بهذه السهولة	It is not as easy as it is now	inferencing
	P4	ليست بالسهلة	It is not easy	inferencing

Experts' strategies during rendering English culture specific terms and structures into Arabic

Source text	S.	Target text	Back translation	Strategy
immigrants feel at home	P2	يمضون ويقضون	Feel free to do whatever they want	inferencing
	P3	العديد من المهاجرين يشعرون كأنهم في اوطانهم الاصلية	Many immigrants feel as if they were at their houses	inferencing
	P4	الكثير من المهاجرين يشعرون وكأنهم في اوطانهم	Many immigrants feel like they were at their houses	inferencing
	P5	بلدان المقصد هي منزلهم وموطنهم	The receiving countries are their homes and homelands	addition
bloody documents	P2	الوثائق الرسمية	The official documents	inferencing
	P4	وثائق رسمية	official documents	inferencing

	P5	وثائق	documents	skipping
full-blooded Americans	P1	الامريكان	Americans	skipping
	P2	الامريكان	Americans	skipping
	P3	الامريكيين	Americans	skipping
	P4	الأمريكيين	Americans	Skipping
	P5	الاميركيين الأصليين	original Americans	Inferencing
selling hot-dogs in the street	P4	يبيعون الاطعمة في الطرقات	They sell food on the streets	Generalization
	P5	يبيعون الهوت دوغ في الشوارع	They sell hoot- doogs on the streets	Reproduction
Melting pot	P1	ميلتتك بوت	Melting pot	Reproduction

Experts' strategies during rendering English culture specific terms and structures into Arabic

Source text	S.	Target text	Back translation	Strategy
seems like heaven	P1	هي حلم	It is a dream	inferencing
	P2	امرا صعبا وصعب المنال	very difficult act	inferencing
	P4	تبدو فرصة رائعة	It seems a wonderful opportunity	inferencing
the land of milk and honey	P4	ارض الفرص	land of opportunities	Inferencing
I remember the words of a bishop	P1	أتذكر كلمات قسيس للمهاجرين	I remember chaplain's words to immigrants	approximation
	P2	سمعت أحدا يوصي	I heard someone recommends.	generalization
	P5	أتذكر أحد رجال الدين يقول...	I remember one of the clergymen says	generalization

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Source text	S.	Target text	Back translation	Strategy
Be strong, and let your heart take courage, all you who wait for the LORD!”	P1	كونو أقوياء ودع قلبك قوي	Be strong and let your heart be strong as well	summarizing
	P2	ان يبقوا شجعانا وان ينتظروا...مساعدة الرب	To stay brave and wait...God’s help	summarizing
	P4	كونوا شجعان تحلو بالقوة والشجاعة...واذا صبرتم ستجدون ...	Be brave and get the power and brevity...if you be patient, you will get...	summarizing
	P5	للمهاجرين انهم يجب ان يتحلوا بالشجاعة والقوة	Immigrants have to get brevity and power	summarizing
with the patience of a saint	P3	يعملون بجد وصبر قديس	Work seriously with a saint’s patience	addition
	P4	يعملون بصبر	Work with patience	skipping
	P5	ويعملون بصبر وكأنهم ملائكة	They work with patience like angels	inferencing

Appendix 26

Analysis Tables of Experts' Renderings during the Arabic into English SI Task

Analysis Tables of Experts' Renderings of the Arabic Proper Names into English

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	الياس يوسف	Yazi	Ilyas Yousif			✓
P2		Ilyas Yousif		✓		
P3		Ilyas Yousif		✓		
P4		Ilyas Yousif		✓		
P5		Ilyas Yousif		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	اليزابيث بلاكويل	Lisa Blackwell	Elizabeth Blackwell		✓	
P2		Elizabeth Blackwell		✓		
P3		Elizabeth Blackwell		✓		
P4		Elizabeth Down			✓	
P5		Elizabeth Blackwell		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	زها حديد	Arab woman	Zaha Hadid		✓	
P2		Zaha Hadid		✓		
P3		Zaha Hadid		✓		
P4		Zaha Hadid		✓		
P5		Zaha Hadid		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	سقراط	Socrates	Socrates	✓		
P2		Socrates		✓		
P3		Socrates		✓		

P4		Socrates		✓		
P5		A Greek philosopher			✓	

No.	S.	Source Text	Target Text	Back Translation	A.	M.	I.
5.	P1	افريقيا	Africa	Africa	✓		
	P2		Africa		✓		
	P3		Africa		✓		
	P4		Africa		✓		
	P5		Africa		✓		

No.	S	Source Text	Target Text	Back Translation	A.	M.	I.
6.	P1	بريطانيا	Britain	Britain	✓		
	P2		Britain		✓		
	P3		Britain		✓		
	P4		Britain		✓		
	P5		Britain		✓		

S	Source Text	Target Text	Back Translation	A.	M.	I.
P1	فاطمة بنت محمد الفهري	Fatima Bintu Mohammed Alfehry	Fatima Bintu Mohammed Alfehry	✓		
P2		Fatima Bintu Mohammed Alfehry		✓		
P3		Fatima Bintu Mohammed Alfehry		✓		
P4		Fatima Bintu Mohammed Alfehry		✓		
P5		Fatima Bintu Mohammed Alfehry		✓		

S	Source Text	Target Text	Back Translation	A.	M.	I.
P1		Marie Curie		✓		
P2		Marie Curie		✓		

P3	ميري كوري	Marie Curie	Marie Curie	✓		
P4		Marie Curie		✓		
P5		Marie Curie		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	توکل کرمان	Tawakel Kerman	Tawakel Kerman	✓		
P2		Tawakel Kerman		✓		
P3		Tawakel Kerman		✓		
P4		Tawakel Kerman		✓		
P5		Tawakel Kerman		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	مکسیکو	Mexico	Mexico	✓		
P2		Mexico		✓		
P3		Mexico		✓		
P4		Mexico		✓		
P5		Mexico		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	مارگریٹ تاتشر	Margaret Thatcher	Margaret Thatcher	✓		
P2		Margaret Thatcher		✓		
P3		Margaret Thatcher		✓		
P4		Margaret Thatcher		✓		
P5		Margaret Thatcher		✓		

Appendix 27

Analysis Tables of Experts' Renderings for the Arabic Numbers into English

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1		The first....in 1877	The first and oldest ...in 877			✓
P2	تم تأسيس اول	The first...in 877		✓		
P3	وأقدم جامعة في	The first ....in 1877				✓
P4	العالم عام 877 م	The first ...in 877		✓		
P5		The first ...in 1877				✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1		She has been assigned in 2009-2014.	She has been assigned in 2010-2014.	✓		
P2	وقد تم تعيينها .. للفترة ما بين	She has been assigned in 2010-2014		✓		
P3	2010 -2014	She has been assigned in 2010-2013.			✓	
P4		She has been assigned in 2010-2014 .		✓		
P5		She has been assigned in 2010-2014		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1		The first...in 1849	The first...in 1849	✓		
P2	اول طبية في	The first...in 1849		✓		
P3	العالم حصلت على	The first...in 1849		✓		
P4		The first...in 1947				✓

P5	شهادة في الطب عام 1849م	The first...in 1849		✓		
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S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1		The firstin 1975	The first ...in 1975	✓		
P2		The first ...in 1975		✓		
P3	عقد الاجتماع	The first ...in 1975		✓		
P4	العالمي الأول عام	The first ...in 1975		✓		
P5	1975	The first ...in 1975		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1		The number of women...25000	The number of women...25000	✓		
P2	وصل عدد النساء	The number of women...25000.		✓		
P3	المتطوعات بالجيش الأمريكي	The number of women...25000.		✓		
P4	الى 25000 مجندة	The number of women...25000		✓		
P5		The number of women...25000.		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1		The two thirds of staff...	The two thirds of staff...	✓		
P2	نلاحظ ثلثي الكادر	The two thirds of staff...		✓		
P3	من العنصر	The two thirds of staff...		✓		
P4	النسوي	The two thirds of staff...		✓		
P5		The two thirds of staff...		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1		In the seventies of ...	In the seventies of ...	✓		
P2	في سبعينيات القرن ..	In the seventies of ...		✓		
P3		In the seventies of ...		✓		
P4		In the seventies of ...		✓		

P5		In the seventies of ...		✓		
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Appendix 28

Analysis Tables of Experts' Renderings for the Arabic Passive Voice into English

P1		in the seventies, these women rights calls increased.			✓	
P2		demands were on the rights for woman's rights by international organizations		✓		
P3	بدأت المطالبات تتزايد من قبل المنظمات الدولية	demands for woman's rights have been increasing by international organizations	A law to terminate all forms of violence against women was enacted	✓		
P4		there were growing calls like the international organizations for ensuring the right of women		✓		
P5		there has been demands for women's right by international organizations		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1		she was hired as an ambassador to UNESCO			✓	
P2	تم تعيينها سفيرة لمنظمة التربية والثقافة والعلوم	She was appointed an ambassador of UNESCO organization	She was appointed as an ambassador for UNESCO	✓		
P3		she was appointed ambassador of UNESCO		✓		

P4	التابعة للأمم المتحدة	she was appointed an ambassador for UNESCO		✓		
P5		she was appointed as an ambassador of the UNESCO		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	تم اسناد العديد من المناصب المهمة	some very high ranks were assigned to woman	Many important positions were assigned to women		✓	
P2		Many important positions were given to woman		✓		
P3		many important positions were assigned to woman		✓		
P4		many positions have also been given to women		✓		
P5		many important posts have been occupied by women		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	عقد الاجتماع العالمي الأول عام	The first meeting took place..	The first meeting was held in	✓		
P2		The first such meeting was held in		✓		
P3		the first meeting was held		✓		
P4		the first meeting was held in..		✓		
P5		The first meeting was held in		✓		

S	Source Text	Target Text	Back Translation	A.	M.	I.
P1		there was no law introduced to terminate all forms of violence against woman				✓
P2	تم سن قانون القضاء على كافة اشكال العنف	at that meeting the law to discriminate violence against women was adopted		✓		
P3		the law of eliminations of all forms of violence against woman was enacted	A law to terminate all forms of violence	✓		
P4		a decision was made to end all forms of violence against woman	against women was enacted	✓		
P5		law on the elimination of all forms of violence against women was adopted		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1		First and the oldest university was established by an Arab woman		✓		
P2	تم تأسيس اول وأقدم جامعة في العالم من قبل امرأة عربية	the first and oldest university in the world was established by an Arab woman		✓		
P3		the first and oldest university in the world was founded by Arabic woman	Demands for woman's rights have been	✓		
P4		the first and the oldest university in the world	increased by the	✓		

		was established by an Arab woman	international organizations			
P5		The first and oldest university was established by an Arab woman		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1		Margret Thatcher there was entitled the iron woman		✓		
P2	ماركريت تاتشر التي لقت بالمرأة الحديدية	Margret Thatcher who was called as the iron lady	Margret Thatcher was nicknamed the iron woman	✓		
P3		Margret Thatcher who was nicknamed Iron lady		✓		
P4		Margret Thatcher there was entitled the iron woman		✓		
P5		Margret Thatcher who was called the iron lady		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1		woman is very important in making political decisions		✓		
P2	عدت المرأة جزءا مهما في صنع القرار	women are considered an important part in political decision making	Woman was considered an important part of decision making	✓		
P3		women have been an important part in decision making		✓		
P4		woman plays an important role in political decision making		✓		

P5		women are considered important decision makers		✓		
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Appendix 29

Analysis Tables of Experts' Renderings for the Arabic Collocations into English

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	تقف بجانب الرجل في السراء والضراء	She stands with man in good times and bad times	She stands with man in good and bad times	✓		
P2		She stands with man in better and in worse		✓		
P3		She stands with man in good and bad		✓		
P4		-----				✓
P5		Women support men at all times		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	لا احب شرب الحساء	I do not like drinking soup	I do not like to have soup		✓	
P2		I do not like to drink			✓	
P3		I do not like to drink soup			✓	
P4		I do not like to have soup		✓		
P5		I do not like to drink soup			✓	

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1		Nobel prize was won by many women		✓		

P2	فقد حصلت جائزة نوبل للسلام	Nobel peace prize was awarded to many women	Women have been awarded the Nobel peace prize	✓		
P3		Nobel peace prize has been awarded to many women		✓		
P4		many women have also received the Noble peace prize		✓		
P5		Nobel peace prize that was awarded to many women		✓		

S	Source Text	Target Text	Back Translation	A.	M.	I.	
P1	ان المجتمع ارتكب أخطاء فادحة	the society made serious mistakes	The society committed serious mistakes	✓			
P2		The society made serious mistakes		✓			
P3		The society made gross mistakes		✓			
P4		the world has committed and done injustice to women			✓		
P5		The society made grave mistakes		✓			

S.	Source Text	Target Text	Back Translation	A.	M.	I.	
P1	عند مراجعتنا الى المستشفيات	when we go to the hospitals	When we visit the hospitals	✓			
P2		When we visit hospitals		✓			
P3		when we check in to hospitals			✓		
P4		when we are visiting hospitals		✓			

P5		we see ... in hospitals		✓		
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S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	اسمحوا لي أن	Let me shed some lights on	Allow me to shed light on an important...	✓		
P2	أسلط الضوء على	Let me to shed light on		✓		
P3	موضوع مهم	let me highlight an important		✓		
P4		Let me focus on an important topic		✓		
P5		let me to highlight an important subject		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	تبذل المرأة جهودا	Woman work a lot in the house	Woman exerts great efforts	✓		
P2	كبيرة	Women work hard at home		✓		
P3		Women are making great efforts		✓		
P4		Women make...great women		✓		
P5		Women work hard in the house		✓		

Appendix 30

Analysis Tables of Experts' Renderings for the Arabic Culture Specific Terms and Structures into English

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	ما يتلج الصدر	We feel better	it's heart -warming ...		✓	
P2		we are warmed to see women present		✓		
P3		it is heartily to see the presence		✓		
P4		we are happy to see women		✓		
P5		we are pleased that women		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	نرفع لها القبعة	raise our hats	We should express our respect to woman		✓	
P2		raise our hats			✓	
P3		raise our hats			✓	
P4		We cannot but admire of women for their ..		✓		
P5		We should all salute women		✓		

S	Source Text	Target Text	Back Translation	A.	M.	I.
P1		She is the aunt		✓		

P2	فهي الخالة	She is the aunt	She is the aunt	✓		
P3		She is the aunt		✓		
P4		She is the aunt		✓		
P5		She is the aunt		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	الا من يديها	Unless she made it	Unless she made it	✓		
P2		if she makes it		✓		
P3		that she made it herself		✓		
P4		unless my mom had made it		✓		
P5		unless it is made by her		✓		

S	Source Text	Target Text	Back Translation	A.	M.	I.
P1	وقد استوقفتني المثل	I remember the saying that says	I remember a proverb which says	✓		
P2		I also recall the proverb		✓		
P3		I was contemplating to saying		✓		
P4		I remember the proverb		✓		
P5		there is a saying if you...		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	في طبخ الأكلات	In cooking food	In cooking our favourite food	✓		
P2		In making meals		✓		
P3		In cooking the food		✓		
P4		In making us the food		✓		
P5		In making the food we like		✓		

Appendix 31

Analysis Tables of Experts' Renderings for the Arabic Terms and Structures with Religious Content into English

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	السلام عليكم الله ورحمة وبركاته	Peace on you the mercies of God	Peace be upon you and Allah's mercy and blessings upon you	✓		
P2		Peace and God blessings		✓		
P3		Peace be upon you and God's mercies and blessings		✓		
P4		May be peace and blessings of God be with you		✓		
P5		May the peace of Allah be upon you		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	كانت تستيقظ منذ صلاة الفجر	she woke up early in the morning at AlFajir prayer	She used to wake up from the early hours in the morning	✓		
P2		She was waking up at dawn		✓		
P3		she was waking up since dawn prayer			✓	
P4		she used to wake up since the early hours in the morning		✓		
P5		she used to wake up early in the morning		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1	اذكرکم بحديث المصطفى " صلى الله عليه وسلم " الجنة تحت أقدام الأمهات	I remind you of the prophet's tradition PBUH when he said heaven is beneath (ahah) mums	I remind you of the prophet's hadith "peace be upon him" "the paradise is under the mothers' feet"		✓	
P2		the prophet Mohammed who said that heavens lie at the feet of mothers		✓		
P3		I would like to remind you of the hadith of the prophet PBUH when he said paradise under the feet of mothers		✓		
P4		I remind you of what the prophet said .....he said that...to get a heaven you have to please your mothers			✓	
P5		Here I would like to remind you of prophetic tradition and I quote "heaven is at the feet of women			✓	

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1		I remind you of the holy Quran when God say and we told man to take care of his parents and his mom carried him			✓	
P2		one that states that humans are asked to care for their parents and for their mothers who carried them through life		✓		

P3	قول الباري عز وجل حين قال " ووصينا الإنسان بوالديه حملته أمه وهنا على وهن"	I would like to remind you of a saying by the almighty exulted be he ووصينا الانسان بوالديه حملته امه وهننا على وهن	And We have enjoined upon man concerning his parents. His mother beareth him in			✓
P4		I would like to end with a verse by the prophet when he said people have to take care of their parents specially their women who have sacrifice themselves for their prosperity	weakness upon weakness, and his weaning is in two years. Give thanks unto Me and unto thy parents. Unto Me is the journeying (Pickthal translation		✓	
P5		I remind you of a verse of the Quran and I interpret the meaning we have told man that you should care for your parents as your mom did hold you in her belly despite the weakness it brings upon her		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1		we need to be good to woman		✓		
P2		-----	We have to be			✓
P3	علينا البر بها	we have to pay her dues a greeting to women	kind to her	✓		
P4		-----				✓
P5		we need to pay attribute to women wherever they could be		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
P1					✓

P2	رحمها الله	God rest her soul	may she rest in peace	✓		
P3		may she rest in peace		✓		
P4		The late		✓		
P5		God bless her soul		✓		

Appendix 32

Nature of Experts' Inadequate Renderings during Arabic into English SI Task

Examples of Experts' inadequate renderings of Arabic names into English

S.	Source Text	Target Text	Back Translation
P1	اللياس يوسف	Yazi	Ilyas Yousif

Examples of Experts' inadequate renderings of Arabic numbers into English

S.	Source Text	Target Text	Back Translation
P1	تم تأسيس اول وأقدم جامعة في العالم عام 877 م	The first...in 1877	The first and oldest...in 877
P3		The first ....in 1877	
P5		The first ...in 1877	
P4	اول طبية في العالم حصلت على شهادة في الطب عام 1849م	The first...in 1947	The first...in 1849

Examples of Experts' inadequate renderings of Arabic passive voice into English

S.	Source Text	Target Text	Back Translation
P1	تم سن قانون القضاء على كافة اشكال العنف	there was no law introduced to terminate all forms of violence against woman	A law to eliminate all forms of violence against women have been enacted

Examples of Experts' inadequate renderings of Arabic collocations into English

S.	Source Text	Target Text	Back Translation
P4	السراء والضراء	.....	.....

Examples of Experts' inadequate renderings of Arabic terms and structures with religious content into English

S.	Source Text	Target Text	Back Translation
P3	قول الباري عز وجل حين قال " ووصينا الإنسان بوالديه حملته أمه وهنا على وهن"	I would like to remind you of a saying by the almighty exulted be he ووصينا الانسان بوالديه حملته امه وهننا على وهن	And We have enjoined upon man concerning his parents. His mother beareth him in weakness upon weakness, and his weaning is in two years. Give thanks unto Me and unto thy parents. Unto Me is the journeying
P2	علينا البر بها	.....	.....
P4		.....	.....
P1	رحمها الله	.....	.....

Appendix 33

Experts' Strategies during Arabic into English SI Task

Experts' strategies during rendering Arabic names into English

S.	Source Text	Target Text	Back Translation	Strategy
P1	ولا يفوتني ان اذكر المعمارية العراقية زها حديد	another Arab woman won the Nobel prize for architecture	I should mention the Iraqi architect Zaha Hadid ..	generalization
P5	قال سقراط عن المرأة	A Greek philosopher says	Regarding woman, Socrates says	generalization

Experts' strategies during rendering Arabic passive voice into English

S.	Source Text	Target Text	Back Translation	Strategy
P1	بدأت المطالبات بحقوق المرأة تتزايد من قبل المنظمات الدولية	these women rights calls increased	demands for woman's rights have been increased by international organizations	summarizing

Experts' strategies during rendering Arabic collocations into English

Source text	S.	Target text	Back translation	Strategy
	P3	let me highlight an important	Let me shed light on	approximation
	P4	I would like to focus on an important topic	an important subject	inferencing

اسمحوا لي أن أسلط الضوء على موضوع مهم	P5	let me to highlight an important subject		Approximation
تبذل المرأة جهودا كبيرة	P1	woman work a lot in the house	woman exerts great efforts	inferencing
	P2	women work hard at home		inferencing
	P5	women work hard in the house		inferencing
تساهم في تشريع القوانين	P1	participate in new laws	participate in legislating laws	approximation
	P4	participate in the work of legislature.....		Approximation
أخطاء فادحة	P3	gross mistakes	serious mistakes	approximation
	P4	has committed and done injustice		addition
	P5	grave mistakes		approximation
عند مراجعتنا الى المستشفيات	P1	when we go to the hospitals	When we visit the hospitals	approximation
	P3	when we check in to hospitals		approximation
	P5	we note in hospitals		summarizing
وتشريع القوانين المهمة	P1	She participates in important laws	She contributes in legislating important laws	approximation
	P4	Women participate in legislative elections		approximation
	P5	Also take part in legislation		approximation
لا احب شرب الحساء	P1	I do not like drinking soup	I do not like to have soup	Literal translation
	P2	I do not like to drink		Literal translation
	P3	I do not like to drink soup		Literal translation
	P4	I do not like to drink soup		Literal translation

السراء والضراء	P5	women support men at all times	She stands with man in good and bad times	Generalization
ان المجتمع ارتكب أخطاء فادحة	P4	the world has committed and done injustice to women	The society committed serious mistakes	Approximation and addition

Experts' strategies during rendering Arabic culture specific terms and structures into English

Source text	S.	Target text	Back translation	Strategy
ما يتلج الصدر	P1	We feel better	We are warmed	generalization
	P3	it is heartily to see		approximation
	P4	we are happy to see		generalization
	P5	we are pleased that		generalization
الامن يديها	P1	Unless she made it	Unless she makes it	inferencing
	P2	if she makes it		inferencing
	P3	that she made it herself		inferencing
	P4	unless my mom had made it		inferencing
	P5	unless it is made by her		Inferencing
نرفع لها القبعة	P4	We cannot but admire of woman	We should express our respect to woman	inferencing
	P5	We should all salute women		inferencing
وقد استوقفني المثل	P1	I remember the saying that says	I remember a proverb which says	inferencing
	P2	I also recall the proverb		inferencing
	P3	I was contemplating to saying		inferencing
	P4	I remember the proverb		inferencing

	P5	there is a saying if you...		inferencing
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Experts' strategies during rendering Arabic terms and structures with religious content into English

Source text	S.	Target text	Back translation	Strategy
أتذكر أيضا أنها كانت تستيقظ منذ صلاة الفجر	P1	I remember also that she woke up early in the morning at AlFajer prayer	I also remember she used to wake up since AlFajir prayer	addition
	P2	I also remember when she was waking up at dawn		inferencing
	P4	she used to wake up since the early hours in the morning		inferencing
	P5	she used to wake up early in the morning		Inferencing
اذكركم بحديث المصطفى " صلى الله عليه وسلم " الجنة تحت أقدام الأمهات	P1	I reminded you of the prophet's tradition PBUH when he said heaven is beneath (ahah) mums	I remind you of the prophet's "peace be upon him" hadith: "the paradise is under the mothers' feet"	skipping
	P2	the prophet Mohammed who said that heavens lie at the feet of mothers		skipping
	P4	I remind you of what the prophet said ...he said that...to get a heaven you have to please your mothers		inferencing
	P5	Here I would like to remind you of prophetic tradition and I quote "heaven is at the (3 seconds pause) feet of women		skipping
	P1	I remind you of the Holy Quran when God say and we ... told man to take care of his parents and his mom carried him		inferencing

قول الباري عز وجل حين قال " ووصينا الإنسان بوالديه حملته أمه وهننا على وهن"	P2	one that states that humans are asked to care for their parents and for their mothers who carried them through life	And We have enjoined upon man concerning his parents. His mother beareth him in weakness upon weakness, and his weaning is in two years. Give thanks unto Me and unto thy parents. Unto Me is the journeying (Pickthal translation)	inferencing
	P3	I would like to remind you of a saying by the almighty exulted be he ووصينا الانسان بوالديه حملته امه وهننا على وهن		reproduction
	P4	I would like to end with a verse by the prophet when he said people have to take care of their parents specially their women who have sacrifice themselves for their prosperity		inferencing
	P5	I remind you of a verse of the Quran and I interpret the meaning we have told man that you should care for your parents as your mom did hold you in her belly despite the weakness it brings upon her		inferencing
علينا البر بها	P1	we need to be good to woman	We have to take care of her	inferencing
	P3	we have to pay her dues a greeting to women		inferencing
	P5	we need to pay attribute to women wherever they could be		inferencing

Appendix 34

Analysis of Novices' Study

Analysis Tables of Novices' Renderings during English into Arabic SI Task

Analysis Tables of Novices' Renderings of English Proper Names into Arabic

No.	S.	Source Text	Target Text	Back Translation	A.	M.	I.
	ST1	My name is Marie David	اسمي ماري ديفد	Mary David	✓		
	ST2		اسمي ماري ديفد	Mary David	✓		
	ST3		اسمي ماري ديفد	Mary David	✓		
	ST4		اسمي ماري ديفد	Mary David	✓		
	ST5		اسمي ماري ديفد	Mary David	✓		
	ST6		اسمي ماري ديفد	Mary David	✓		
	ST7		اسمي ميرى ديفد	Merry David	✓		
	ST8		اسمي ميرى ديفد	Merry David	✓		
	ST9		اسمي ميرى ديفد	Merry David	✓		
	ST10		اسمي ميرى ديفد	Merry David	✓		
	ST11		اسمي ماري ديفد	Mary David	✓		
	ST12		اسمي ماري ديفد	Mary David	✓		
	ST13		اسمي ميرى ديفد	Merry David	✓		
	ST14		اسمي ماريا ديفد	Maria David	✓		
	ST15		اسمي ماري ديفد	Mary David	✓		
	ST16		اسمي ميرى ديفد	Merry David	✓		
	ST17		اسمي ماريا ديفد	Maria David			✓

No.	S.	Source Text	Target Text	Back Translation	A.	M.	I.
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	ST1	The city of San Francisco	في سان فرانسيسكو	in San Francisco	✓		
	ST2		في سان فرانسيسكو	in San Francisco	✓		
	ST3		في سان ..كو	in San...co			✓
	ST4		في سان فرانسيسكو	in San Francisco	✓		
	ST5		في سان فرانسيسكو	in San Francisco	✓		
	ST6		في سان فرانسيسكو	in San Francisco	✓		
	ST7		في سان فرانسيسكو	in San Francisco	✓		
	ST8		في سان فرانسيسكو	in San Francisco	✓		
	ST9		.....	.....			✓
	ST10		في سان فرانسيسكو	in San Francisco	✓		
	ST11		في سان فرانسيسكو	in San Francisco	✓		
	ST12		في سان فرانسيسكو	in San Francisco	✓		
	ST13		في سان فرانسيسكو	in San Francisco	✓		
	ST14		في سان فرانسيسكو	in San Francisco	✓		
	ST15		اليونسكو	ALUNESCO			✓
	ST16		.....	.....			✓
	ST17		في سان فرانسيسكو	in San Francisco	✓		

No.	S.	Source Text	Target Text	Back Translation	A.	M.	I.
	ST1	like the New York Times	مثل نيويورك	like New York...		✓	
	ST2		كالنيويورك تايمز	as New York Times	✓		
	ST3		مثل نيويورك تايمز	as New York Times	✓		
	ST4		في اليواس	like the US			✓
	ST5		كالنيويورك تايمز	as New York Times	✓		
	ST6		.....	.....			✓
	ST7		.....	.....			✓
	ST8		.....	.....			✓
	ST9		مثل نيويورك	like New York...		✓	
	ST10		.....	.....			✓
	ST11		.....	.....			✓

ST12	والتايمز	and Times		✓	
ST13	كالنيويورك تايمز	as New York Times	✓		
ST14	كالنيويورك تايمز	as New York Times	✓		
ST15	.....	.....			✓
ST16	.....	.....			✓
ST17	كالنيويورك تايمز	like New York Times	✓		

No.	S.	Source Text	Target Text	Back Translation	A.	M.	I.
	ST1	come from Honduras	.....	.....			✓
	ST2		من الهندوراس	From Honduras	✓		
	ST3		.....	.....			✓
	ST4		.....	.....			✓
	ST5		.....	.....			✓
	ST6		.....	.....			✓
	ST7		.....	.....			✓
	ST8		من الهندوراس	From Honduras	✓		
	ST9		.....	.....			✓
	ST10		.....	.....			✓
	ST11		.....	.....			✓
	ST12		من الهندوراس	From Honduras	✓		
	ST13		.....	.....			✓
	ST14		.....	.....			✓
	ST15		.....	.....			✓
	ST16		.....	.....			✓
	ST17		.....	.....			✓

No.	S.	Source Text	Target Text	Back Translation	A.	M.	I.
	ST1		.....	.....			✓
	ST2		نيويورك بوست	New York Post			✓
	ST3		.....	.....			✓
	ST4		وواشنطن	And Washington		✓	

ST5	Like Washington post	.....	.....			✓
ST6		واشنطن تايمز	Washington Times		✓	
ST7		كواشنطن بوست	as Washington Post	✓		
ST8		.....	.....			✓
ST9		.....	.....			✓
ST10		.....	.....			✓
ST11		.....	.....			✓
ST12		.....	.....			✓
ST13		.....	.....			✓
ST14		كواشنطن بوست	as Washington Post	✓		
ST15		.....	.....			✓
ST16		.....	.....			✓
ST17		.....	.....			✓

No.	S.	Source Text	Target Text	Back Translation	A.	M.	I.
	ST1	come from Mexico	ياتون من المكسيك	come from Mexico	✓		
	ST2		من المكسيك	come from Mexico	✓		
	ST3		ياتون من المكسيك	come from Mexico	✓		
	ST4		ياتون من المكسيك	come from Mexico	✓		
	ST5		ياتون من المكسيك	come from Mexico	✓		
	ST6		من مدينة مكسيكو	come from Mexico	✓		
	ST7		من مدينة مكسيكو	come from Mexico	✓		
	ST8		ياتون من المكسيك	come from Mexico	✓		
	ST9		ياتون من المكسيك	come from Mexico	✓		
	ST10		ياتون من المكسيك	come from Mexico	✓		
	ST11		.....	.....			✓
	ST12		ياتون من المكسيك	come from Mexico	✓		
	ST13		ياتون من المكسيك	come from Mexico	✓		
	ST14		ياتون من المكسيك	come from Mexico	✓		
	ST15				✓
	ST16				✓

ST17			✓
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No.	S.	Source Text	Target Text	Back Translation	A.	M.	I.
	ST1	like The Wall Street			✓
	ST2		والوول ستريت	Wall Street	✓		
	ST3		والوول ستريت	Wall Street	✓		
	ST4		والوول ستريت	Wall Street	✓		
	ST5		.....	.....			✓
	ST6		والوول ستريت	Wall Street	✓		
	ST7		والوول ستريت	Wall Street	✓		
	ST8		.....	.....			✓
	ST9		.....	.....			✓
	ST10		.....	.....			✓
	ST11		.....	.....			✓
	ST12		والوول ستريت	Wall Street	✓		
	ST13		والوول ستريت	Wall Street	✓		
	ST14		والوول ستريت	Wall Street	✓		
	ST15		.....	.....			✓
	ST16		.....	.....			✓
	ST17		.....	.....			✓

No.	S.	Source Text	Target Text	Back Translation	A.	M.	I.
	ST1		.....	.....			✓
	ST2		.....	.....			✓
	ST3		في عهد اوباما	During Obama's era	✓		
	ST4		في رئاسة اوباما	During Obama's ...	✓		
	ST5		في عهد اوباما	During Obama's era	✓		
	ST6		في رئاسة اوباما	During Obama's ...	✓		
	ST7		في رئاسة اوباما	During Obama's ...	✓		
	ST8		في رئاسة اوباما	During Obama's ...	✓		
	ST9		.....	.....			✓

ST10	During Obama's presidency	في رئاسة اوباما	During Obama's ...	✓		
ST11		.....	.....			✓
ST12		في رئاسة اوباما	During Obama's ...	✓		
ST13		في رئاسة اوباما	During Obama's ...	✓		
ST14		في رئاسة اوباما	During Obama's ...	✓		
ST15		.....	.....			✓
ST16		.....	.....			✓
ST17		على وجود اوباما	During Obama's ...	✓		

Appendix 35

Analysis Tables of Novices' Reports Regarding the Problem Identification during English into Arabic SI Task

Novices' reports regarding the problems encountered when rendering English proper names into Arabic.

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	
ST1								1				1				2
ST2								1							1	2
ST3	1											1				2
ST4																
ST5																
ST6															1	1
ST7																
ST8																
ST9								1								1
ST10	1															1
ST11	6															6
ST12					1			1								2
ST13																
ST14																
ST15	4					1										5
ST16	7							1								8
ST17														1		1
Total	19				1	1		5				2		1	2	31

Novices' reports regarding the problems encountered when rendering English numbers into Arabic.

S.	Comprehension					Translation		Simultaneity		Monitoring					Total	
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int		Id
ST1								1								1
ST2								1								1
ST3	1															1
ST4																
ST5												1				1
ST6															1	1
ST7															1	1
ST8																
ST9								1								1
ST10								7								7
ST11								7								7
ST12	1															1
ST13	3															3
ST14																
ST15	6							1								7
ST16	7															7
ST17						1										1
Total	18					1		18				1			2	40

Novices' reports regarding the problems encountered when rendering English passive voice into Arabic.

S.	Comprehension					Translation		Simultaneity		Monitoring					Total	
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int		Id
ST1																
ST2																
ST3																
ST4	1							1								2
ST5																
ST6	1	1														2
ST7																
ST8											1					1
ST9								1								1
ST10	2															2
ST11	2	1														3
ST12		2									2					4

ST13															2	2
ST14	3															3
ST15		2								1						3
ST16	7															7
ST17																
Total	16	6						2			4				2	30

Novices' reports regarding the problems encountered when rendering English collocations into Arabic.

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	
ST1																
ST2																
ST3																
ST4																
ST5														1		1
ST6	1					1										2
ST7					1											1
ST8					3											3
ST9																
ST10	1				1											2
ST11																
ST12		1				1	1									3
ST13	3															3
ST14		1														1
ST15	1	4														5
ST16	4															4
ST17																
Total	10	6			5	2	1							1		25

Novices' reports regarding the problems encountered when rendering English culture specific terms and structures into Arabic.

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	

				(bgkn)													
ST1		2															2
ST2																	
ST3		1															1
ST4		3															3
ST5		1									1						2
ST6		4															4
ST7																	
ST8		3															3
ST9	1	1															2
ST10																	
ST11	1					2		4									7
ST12	2									1		1					4
ST13	3														2		5
ST14	2	1															3
ST15	3	2															5
ST16	3									2	1						6
ST17							1			1							2
Total	15	18				2	1	4		3	2	1	1		2		49

Novices' reports regarding the problems encountered when rendering English terms and structures with religious content into Arabic.

S.	Comprehension					Translation		Simultaneity		Monitoring						Total	
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id		
ST1																	
ST2																	
ST3																	
ST4																	
ST5	2					1											3
ST6	1	1											1	1			4
ST7																	
ST8													4				4
ST9																	
ST10	1																1
ST11	8																8
ST12	4							1									5
ST13	4														1		5
ST14	4																4
ST15	4	2															6
ST16	6										1						7
ST17										2	1			1			4
Total	34	3				1		1		2	2		5	2	1		51

Appendix 36

Nature of Novices' Inadequate Renderings during English into Arabic SI Task

Examples of novices' recourse to omission during rendering the English proper nouns into Arabic

S.	Source Text	Target Text	Back Text
ST8	The issue of immigrants is frequently addressed in the top headlines of many US newspapers, like The New York Times, The Washington Post, The Wall Street . By the way, life is ...	وان قضية المهاجرين.....وبالمناسبة فالحياة هنا ليست	the issue of immigrants...By the way life is ...
ST10	the majority of who usually come from Mexico and Honduras . For many people, the chance of emigrating to a place like America; the land of milk and honey, seems like heaven	والعديد منهم ياتون من دول أمريكا الجنوبية أمريكا دولة اه اه كجنة	Many of them come from south America America is ahah a State like heaven

ST11	Tens of thousands of immigrants were allowed to live in the States during Obama's presidency	يهاجر من بلد الى اخر وفي وقت حكم رئاسة اه اه اه	Immigrate from country to country and during the ruling period of ahahah ...
ST15	I don't think I know any place in the world that's more diverse in the world than the city of San Francisco . I remember when I visited ...	لا اعتقد ان هناك بلد تستقبل مثل ال ال ال يونسكو... وحاليا المهاجرون يتزايدون في امريكا	I do not think there is any country receives like Al Al Al UNESCO...now immigrants are increasing in America
ST16	The issue of immigrants is frequently addressed in the top headlines of many US newspapers, like the New York Times , The Washington Post , The Wall Street . By the way, life here is not easy	وبلا شك انهم... فالكثير من الجرائد توجه مشكلة الهجرة... الحياة هنا ليست سهلة	Undoubtedly, they are ...many newspapers address the issue of immigration.... life here is not easy

Examples of novices' misinterpretation during rendering the English proper nouns into Arabic

S.	Source Text	Target Text	Back Translation
ST3	The city of San Francisco	ذهبت الى ..سان..كو	I went to ..San..Ko
ST6	US newspapers like the New York Times	كما في الجرائد اه اه اه ..وواشنطن تايم	In newspapers ahahah..wawashington Time
ST11	US newspapers like the New York Times	في العديد من الصحف مثل اه اه نيوز تايمر	In many journals like ahah.. News Timer

Examples of the effects of novices' inadequate renderings of English proper names into Arabic

S.	Source Text	Target Text	Back Translation
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ST4	The issue of immigrants is frequently addressed in the top headlines of many US newspapers, like The New York Times, The Washington Post, The Wall Street . By the way, life here is not easy. It is difficult, expensive	وهناك الكثير من المواضيع تنشر في العديد من الصحف مثل الورد ستريت واليو اس وجريدة امريكا وواشنطنوممكن ان تكون مكلفة	There were many topics that been publishing in many newspapers such as World Street, US, America Newspaper, and Washington and could be costly
ST8	The issue of immigrants is frequently addressed in the top headlines of many US newspapers, like The New York Times, The Washington Post, The Wall Street . By the way, life is ...	وان قضية المهاجرين وبالمناسبة فالحياة هنا ليست	the issue of immigrants.....By the way life is
ST11	Tens of thousands of immigrants were allowed to live in the States during Obama's presidency	يهاجر من بلد الى اخر وفي وقت رئاسة اه اه اه	Immigrate from country to country and during the presidency of ahahah ...
ST15	I don't think I know any place in the world that's more diverse in the world than the city of San Francisco . I remember when I paid a visit	لا اعتقد ان هناك بلد تستقبل مثل ال ال ال يونسكو ....وحاليا المهاجرون يتزايدون في امريكا	I do not think there is any country receives like Al Al Al UNESCO...now immigrants are increasing in America
ST16	The issue of immigrants is frequently addressed in the top headlines of many US newspapers,	وبلا شك انهم .....فالكثير من الجرائد توجه مشكلة الهجرة... الحياة هنا ليست سهلة	Undoubtedly, they are ...many newspapers address the issue of immigration.... life here is not easy

	like the New York Times, The Washington Post, The Wall Street. By the way life here is not easy it is expensive ...		
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Nature of novices' inadequate renderings of the English numbers into Arabic

Examples of novices' recourse to omission during rendering the English numbers into Arabic

S.	Source Text	Target Text	Back Translation
ST7	immigrants around the world transfer 12 billion dollars to their home countries	ينقلون الأموال لدولهم كتحويلات	The transfer money to their countries as remittance
ST11	during Obama's presidency between 2009 and 2017	وفي وقت حكم رئاسة اوباما اه اه اه	During Obama's presidency ah ah ah
ST12	the US was colonized by the British in 1606	الولايات المتحدة اه اه استعمرت من اه قبل بريطانيا	US ah ah ah..has been colonized ahah by Britain in ah ah ...
ST14	it is no piece of cake. The total estimated number of immigrants in the USA is 89.4 million. They exert a lot of effort in trying to find any job	لكنها ليست سهلة .....وهم يجتهدون للحصول على وظيفة تغطي تكاليفهم	It is not easy...they exert efforts to get a job that covers their expenses

Examples of novices' misinterpretations of English numbers into Arabic

ST13	..who used to be called illegal immigrants. Fortunately, this terminology has been recently changed by the government as	الكثير من المهاجرين في أمريكا نسميهم مهاجرين بدون وثائق.....	We call the many immigrants in America as immigrants without documents...
ST15	very arduous process.... Tens of thousands of immigrants were allowed to live... The best long-term solution to this problem	ليست سهلة ووالحل لهذه المشكلة من وجهة نظري هو..	It is not easy waw a wa and the solution for this problem as far as I am concerned is ...

Examples of novices' misinterpretations for the English passive voice into Arabic

S.	Source Text	Target Text	Back Translation
ST2	It was deemed unfair to call those people illegal	الذين لالالالا يعني لا يحصلون على الوثائق المطلوبة	Who are nononono do not get the needed documents
ST9	Immigration was regarded as a help	ان الهجرة اه اه اه ككككك كوسيلة ل...الاقتصاد	Immigration is ahahahah ..as means .....economy
ST11	The issue is frequently addressed in American newspapers	اه اه المشكلة انهم مثل المشاركين في المجالات	Ahah the problem they are as participants in journals
ST14	Thousands of immigrants were allowed to live in the States	الالاف من المهاجرين سمح لهم بمغادرة الولايات المتحدة	Thousands of immigrants were allowed to depart the US
ST15	Immigration was regarded as a help to developing countries	اه اه كانت تعتبر كالجحيم على البلدان النامية	It was considered as a hell on the developing countries

Nature of novices' inadequate renderings of English collocations into Arabic

Novices' recourse to omission during rendering English collocations into Arabic

S.	Source text	Target text	Back translation
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ST1	Getting a residence permit is a very arduous process and it may take years	والحصول على اقامة قد...تاخذ السنوات	To get a residency permit may...take years.
ST2	immigrants often take risks and look for other ways to emigrate, even without having the legal documents	بعض الاحيان الهجرة غير القانونية.. يهاجر المهاجرون بدون الوثائق المطلوبة	Sometimes illegal immigration ..immigrants immigrates without the required documents
ST8	They exert a lot of effort in trying to find any job that that will cover their basic needs	للمهاجرين يحاولون الحصول على أي وظيفة قد تمكنهم من العيش	Immigrants try to find any job that covers their basic needs
ST15	I remember when I paid a visit to my boyfriend there: at that point the number of immigrants seemed	وانا اتذكر ..عدد المهاجرين يبدو اكثر	And I remember ...the number of immigrants seems more.
ST16	There are crowds of those undocumented people , the majority of who usually come from Mexico and Honduras	وهناك غالبية من ..الذين يقدمون من ..	There are majority of ...who come from

Examples of Novices' literal translation of English collocations into Arabic

S.	Source Text	Target Text	Back Translation
ST3		انها ليست قطعة حلوة	It is not a piece of sweet
ST5	It is not a piece of cake	بهذا الهجرة ليست قطعة كعكة	It is not a piece of cake
ST7	cake	انها ليست قطعة كعك	It is not a piece of cake
ST13	Take risks	العديد من المهاجرين يتخذون المخاطر	many immigrants take risks ...
ST16		المهاجرين يأخذون المخاطر	

Nature of novices' inadequate renderings of the English culture specific terms and structures into Arabic

Novices' recourse to omission during rendering English culture specific terms and structures into Arabic

S.	Source Text	Target Text	Back Translation
ST1	We don't see a lot of full-blooded Americans picking oranges in San Francisco	لا نرى ... احدا يطفف البرتقال في ...	We do not see... anyone picking oranges in ...
ST5	Yes, there's a reason why America is known as the melting pot : it's because we have people	ذلك يجعل امريكا تعرف باسم ...ذلك لان لدينا اناس من كافة انحاء العالم	That makes America ...because we have people from all over the world
ST10	I remember when I paid a visit to my boyfriend there: at that point the number of immigrants	لا اعتقد ان هناك دولة في العالم اه اه او ..فيها مثل سان فرانسسكو فأتذكر ان عدد المهاجرين هناك	I do not think there is a State in the world ahahah..like San ..Francisco, I remember ..the number of immigrants
ST14	Immigrants are located all over the world, with the United States receiving the lion's share of immigrants worldwide	والولايات المتحدة تملك ...اشخاص من جميع انحاء العالم	The US has ...persons from all over the world
ST16	We don't see a lot of full-blooded Americans .. or selling hot-dogs in the street. We don't see a lot of Americans serving in the churches	لا نرى الكثير من السكان الامريكيين الاصليين ولا نرى الامريكيين يحضرون الكنائس	We do not see original Americans and we do not see Americans attend the churches

Examples of novices' literal rendering of the culture specific terms and structures into Arabic

S.	Source Text	Target Text	Back Translation
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ST3	Immigrants feel at home	المهاجرون يشعرون في المنزل	Immigrants feel at their houses
ST6	only for not having the bloody documents	الى أولئك الذين لا يملكون وثائق الدم	To those who do not have the blood documents
ST7		فقط لانهم لا يملكون وثائق الدم	Only because they do not have the blood document

Nature of novices' inadequate renderings of the terms and structures with religious content

Examples of novices' recourse to omission during rendering the terms and structures with religious content

S.	Source Text	Target Text	Back Translation
ST4	We don't see a lot of Americans serving in the churches during Sunday mass . I want to say that	حقا ولا نرى الامريكان...واريد ان اقول ان ...	We really do not see Americans...and I want to say that...
ST6	For many people, the chance of emigrating to a place like America; the land of milk and honey , seems like heaven, but let me	تعتبر امريكا لدى الكثيرين...ارض الاحلام لكن دعوني ..	America is considered for many people ...the land of dreams ..but let me ..
ST9	they work hard with the patience of a saint , doing jobs no one wants to do	اه اه اه.....ويعملون اه اه وبصبر.....اه اه	Ah ah ah ..they work ..with patience ah ah ah ..
ST13	no one wants to do, I remember the words of a bishop , telling several friends	لا يود احد من السكان الأصليين... فقال للمهاجرين كونوا أقوياء وشجعان	There is no original inhabitant... said to the immigrants stay strong ..
ST16	they work hard with ...I remember the words of a bishop, telling several friends who were immigrants: "Be	فالمهاجرين يعملون اعمال الكثير...من الاشخاص لا يودونها فنحن لا نرى الكثير من السكان الامريكيين	Immigrants do many things...from those who do not like. We do not see many Americans

	strong, and let your heart take courage, all you who wait for the LORD!” We don’t see a lot of full-blooded Americans		
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Appendix 37

Analysis Tables of Novices’ Renderings for English Numbers into Arabic

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	Approximately 220 million are immigrants	ما يقارب 220 مليون	about 220 million	✓		
ST2		20 مليون ..	20 million ...			✓
ST3		اكثر من 220 مليون	more than 220 million	✓		
ST4		تقريبا 220 مليون	About 220 million	✓		
ST5		ما يقارب 220 مليون	about 220 million	✓		
ST6		20 مليون ..	20 million ...			✓
ST7		200 الف مليون مهاجر	200 thousand million immigrants			✓
ST8		ما يقارب 220 مليون	about 220 million	✓		
ST9		ما يقارب 220 مليون	about 220 million	✓		
ST10		هناك العديد من الملايين من الاشخاص	There are many millions of people		✓	
ST11		هناك 22% من الاشخاص	There is 22% of people			✓
ST12		ما يقارب 220 مليون	about 220 million	✓		
ST13		حولي 200 مليون	about 200 million		✓	

ST14	مايقارب 200 الف مليون شخص مهاجر	about 200 thousand million immigrants			✓
ST15	تقريبا 200 مليار من الناس	About 200 billion people			✓
ST16	مايقارب 22 مليون مهاجر	About 22 million immigrants			✓
ST17	ما يقارب 220 مليون	about 220 million	✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	The number of immigrants in US is 89.4 million	المهاجرين 89.4 مليون	Immigrants are 89.4 million	✓		
ST2		يبلغ العدد 4 مليون	The number is 4 million			✓
ST3		المهاجرين 89.4 مليون	Immigrants are 89.4 million	✓		
ST4		المهاجرين 89.4 مليون	Immigrants are 89.4 million	✓		
ST5		.....	.....			✓
ST6		المهاجرين 89 مليون	The number of immigrants is estimated 89 million		✓	
ST7		.....	.....			✓
ST8		عدد المهاجرين هو 8.4 مليون	The number of immigrants is 8.4 million			✓
ST9		عدد المهاجرين هو 89 مليون	The number of immigrants is 89 million		✓	
ST10		عدد المهاجرين 88 مليون	The number of immigrants is 88 million			✓
ST11		.....	.....			✓
ST12		عدد المهاجرين هو اه اه 89 مليون	The number of immigrants is ahah 89 million		✓	
ST13		المهاجرين 89.4 مليون	Immigrants are 89.4 million	✓		
ST14		.....	.....			✓
ST15		.....	.....			✓
ST16		.....	.....			✓
ST17		.....	.....			✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	The US was colonized ..in 1606	تم استعمارها عام 1606	US was colonized..1606	✓		
ST2		قد أصبحت ...عام 1906	It became ...in 1906			✓
ST3		كانت مستعمرة في القرون الماضية	It was colonized in the past centuries		✓	
ST4		من قبل البريطانيين عام 1960	US was occupied by 1960			✓
ST5		.....	.....			✓
ST6		.....	.....			✓
ST7		.....	.....			✓
ST8		تم احتلالها عام 1606	US was occupied..1606	✓		
ST9		.....	.....			✓
ST10		.....	.....			✓
ST11		.....	.....			✓
ST12		.....	.....			✓
ST13		تم استعمارها عام 1606	US was colonized..1606	✓		
ST14		.....	.....			✓
ST15		.....	.....			✓
ST16		.....	.....			✓
ST17		.....	.....			✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		نسبة 3 بالمئة	3% of world	✓		
ST2		.....	.....			✓
ST3		نسبة 3 بالمئة	3% of world	✓		
ST4		نسبة 3 بالمئة	3% of world	✓		
ST5		33 بالمئة	33% of world			✓

ST6	means 3% of the world	نسبة 3 بالمئة	3% of world	✓		
ST7		نسبة 3 بالمئة	3% of world	✓		
ST8		نسبة 3 بالمئة	3% of world	✓		
ST9		نسبة 3 بالمئة	3% of world	✓		
ST10		.....	.....			✓
ST11		.....	.....			✓
ST12		نسبة 3 بالمئة	3% of world	✓		
ST13		نسبة 3 بالمئة	3% of world	✓		
ST14		نسبة 3 بالمئة	3% of world	✓		
ST15		.....	.....			✓
ST16		.....	.....			✓
ST17		نسبة 3 بالمئة	3% of world	✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	Immigrants ..transfer 12 billion dollars	ينقل 12 مليار دولار	move 12 billion dollars	✓		
ST2		.....	.....			✓
ST3		ينقل 12 مليار دولار	move 12 billion dollars	✓		
ST4		ينقل 12 مليار دولار	move 12 billion dollars	✓		
ST5		ينقل 12 مليار دولار	move 12 billion dollars	✓		
ST6		يحول 12 بليون دولار	Transfer 12 billion dollars	✓		
ST7		.....	.....			✓
ST8		يحولون 12	transfer 12		✓	
ST9		ينقل 12 مليار دولار	move 12 billion dollars	✓		
ST10		يحولون الملايين من الدولارات	Transfer millions of dollars			✓
ST11		.....	.....			✓
ST12		يحولون 12	transfer 12		✓	
ST13		ينقل 12 مليار دولار	move 12 billion dollars	✓		
ST14		يحولون 12 مليون	move 12 million dollars			✓
ST15		.....	.....			✓

ST16	يحولون الكثير من المال لبلدانهم	Transfer a lot of money		✓	
ST17	.....	.....			✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	Obama's presidency in 2009	.....	.....			✓
ST2		.....	.....			✓
ST3		في عام 2008	in 2008			✓
ST4		بين عام 2009	in 2009	✓		
ST5		.....	.....			✓
ST6		بين عام 2009	in 2009	✓		
ST7		بين عام 2009	in 2009	✓		
ST8		بين عام 2009	in 2009	✓		
ST9		بين عام 2009	in 2009	✓		
ST10		.....	.....			✓
ST11		.....	.....			✓
ST12		بين عام 2009	in 2009	✓		
ST13		.....	.....			✓
ST14		بين عام 2009	in 2009	✓		
ST15		.....	.....			✓
ST16		.....	.....			✓
ST17		.....	.....			✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1				✓
ST2		.....	.....			✓
ST3		سنة 2017	in 2017	✓		
ST4		.....	.....			✓
ST5		.....	.....			✓
ST6		.....	.....			✓

ST7	Obama's presidency in ..2017	سنة 2017	in 2017	✓		
ST8		.....	.....			✓
ST9		عام 2017	in 2017	✓		
ST10		.....	.....			✓
ST11		.....	.....			✓
ST12		عام 2017	in 2017	✓		
ST13		.....	.....			✓
ST14		عام 2017	in 2017	✓		
ST15		.....	.....			✓
ST16		.....	.....			✓
ST17		.....	.....			✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	There are tens of thousands of...	الالاف من	thousands of ...	✓		
ST2		عشرات الالاف من	tens of thousands of	✓		
ST3		عشرات الالاف من	tens of thousands of	✓		
ST4		.....	.....			✓
ST5		عشرات الالاف من	tens of thousands of	✓		
ST6		مئات الالاف من	hundreds of thousands			✓
ST7		عشرات الالاف من	tens of thousands of	✓		
ST8		عشرات الالاف من	tens of thousands of	✓		
ST9		عشرات الالاف من	tens of thousands of	✓		
ST10		عشرات الالاف من	tens of thousands of	✓		
ST11		.....	.....			✓
ST12		عشرات الالاف من	tens of thousands of	✓		
ST13		عشرات الالاف من	tens of thousands of	✓		
ST14		عشرات الالاف من	tens of thousands of	✓		
ST15		.....	.....			✓
ST16		عشرات الالاف من	tens of thousands of	✓		
ST17		.....	.....			✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	It started thousands of years ago	منذ الاف السنين	since thousands of years	✓		
ST2		منذ الاف السنين	since thousands of years	✓		
ST3		منذ الاف السنين	since thousands of years	✓		
ST4		منذ الاف السنين	since thousands of years	✓		
ST5		.....	.....			✓
ST6		منذ الاف السنين	since thousands of years	✓		
ST7		منذ الاف السنين	since thousands of years	✓		
ST8		منذ الاف السنين	since thousands of years	✓		
ST9		منذ الاف السنين	since thousands of years	✓		
ST10		منذ الاف السنين	since thousands of years	✓		
ST11		منذ الاف السنين	since thousands of years	✓		
ST12		منذ الاف السنين	since thousands of years	✓		
ST13		منذ الاف السنين	since thousands of years	✓		
ST14		منذ الاف السنين	since thousands of years	✓		
ST15		منذ الاف السنين	since thousands of years	✓		
ST16		منذ الاف السنين	since thousands of years	✓		
ST17		منذ الاف السنين	since thousands of years	✓		

Appendix 38

Strategies Applied by the Novices during the SI Task from English into Arabic

Strategies applied by novices during rendering numbers

Source text	Subjects	Target text	Back translation	Strategy
Approximately 220 million are immigrants	ST10	هناك العديد من الملايين من الاشخاص	There are many millions of people	generalization
	ST13	حولي 200 مليون	about 200 million	Approximation
The US was colonized ...in 1606	ST3	كانت مستعمرة في القرون الماضية	It was colonized in the past centuries	Generalization
Immigrants ...transfer 12 billion dollars	ST16	يحولون الكثير من المال لبلدانهم	Transfer a lot of money	Generalization

Strategies applied by the novices during rendering collocations

Source text	S.	Target text	Back translation	Strategy
arduous process	ST13	ليس من السهل	It is not easy to ...	inferencing

Strategies applied by the novices during rendering culture specific terms and structures into Arabic

S.	Source Text	Target Text	Back Translation	Strategy
ST6	Bloody documents	لانهم ليس لديهم وثائق الدم	Because they do not have the blood documents ...	Literal translation
ST7		لايملكون وثائق الدم	They do not have the blood documents	Literal translation
ST6	the lion's share of immigrants	الولايات المتحدة تحتل المركز الاول	The US is considered number one country	inferencing
ST5		تستقبل الولايات المتحدة النصيب الاكبر	The US receives the largest share of	inferencing
ST16		امريكا تحتل المنصب الاكبر	America has the largest portion of ...	inferencing

Strategies applied by novices during rendering terms and structures with religious content

Source text	S.	Target text	Back translation	Strategy
I remember the words of a bishop	ST10	انتذكر بان احدهم قال	I remember when someone said	generalization
	ST12	انتذكر ان هناك من كان يقول	I remember when someone says...	generalization
	ST14	قال احد الاشخاص الى ..	Someone says to	generalization
	ST17	انتذكر عندما قال احدا	I remember when one says	generalization

Appendix 39

Analysis Tables of Novices' Renderings for English Passive Voice into Arabic

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	Immigration is considered a problem	الهجرة هي تعتبر غالبا مشكلة	Immigration is considered often problem	✓		
ST2		تعتبر الهجرة مشكلة لبعض الدول	Immigration is considered a problem for some countries	✓		
ST3		تعتبر الهجرة احد المشاكل الموجودة	Immigration is considered one of the problems	✓		
ST4		تعتبر الهجرة مشكلة للعديد من الدول	Immigration is considered a problem for many countries	✓		
ST5		تم اعتبارها مشكلة للعديد من الدول	It has been considered a problem for many countries	✓		
ST6		تعد مشكلة حقيقية للعديد من الدول	It is considered a serious problem for many countries	✓		
ST7		تعتبر الهجرة مشكلة للعديد من الدول	It is considered a problem for many countries	✓		

ST8	فان الهجرة تعتبر للكثير من الدول...	Immigration is considered for many countries.			✓
ST9	.....	.....			✓
ST10	تعتبر الهجرة مشكلة	It is considered a problem	✓		
ST11	.....	.....			✓
ST12	تعد مشكلة للحكومات	It is considered a problem for the governments	✓		
ST13	تعتبر الهجرة مشكلة للعديد من الحكومات	It is considered a problem for many governments	✓		
ST14	الهجرة تعد مشكلة للعديد من الدول	Immigration is a problem for many countries	✓		
ST15	تعتبر الهجرة مشكلة لهذه الدول	It is considered a problem for these countries	✓		
ST16	الهجرة لم تعد مشكلة	Immigration is not considered a problem			✓
ST17	اعتبرت مشكلة للعديد من الحكومات	It is considered a problem for many governments	✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	Terminology has been changed by the government	المصطلح قد تم تحوله من قبل الحكومة	Terminology has been moved by the government	✓		
ST2		وهذه القوانين قد تغيرت من قبل الحكومة	These laws have been changed by the government	✓		
ST3		قد تغير هذا الموضوع من قبل الحكومة	This topic has been changed by the government	✓		
ST4		هذه الالية تغيرت من قبل الحكومة	This technique has been changed by the government	✓		
ST5		قد تم تغيير هذا المصطلح من قبل الحكومة	This terminology has been changed by the government	✓		
ST6		قد تم تغيير هذا المصطلح من قبل الحكومة	This terminology has been changed by the government	✓		
ST7		قد تغيرت هذه الطبيعة	This nature has been changed		✓	

ST8	تم تغيير هذا المصطلح	This terminology has been changed	✓		
ST9	تم تغيير هذا المصطلح	This terminology has been changed	✓		
ST10	.....	.....			✓
ST11	لكن الدولة اه اه ..رفضت تسميتهم بذلك الاسم	But the government ah ah ah ..refused to call them with this name		✓	
ST12	قد تم تغيير هذا المصطلح من قبل الحكومة	This terminology has been changed by the government	✓		
ST13	.....	.....			✓
ST14	وهذه المصطلحات قد تم تغييرها من قبل الحكومة	These terminologies have been changed by the government	✓		
ST15	تغير هذا المصطلح من قبل الحكومة	this terminology has changed by the government	✓		
ST16	.....	.....			✓
ST17	تغير هذا المصطلح من قبل الحكومة	this terminology has changed by the government	✓		

S.	Source Text	Target Text	Back Translation	A.	M	I.
ST1		.....	.....			✓
ST2		وينشروا قصصهم في العديد من الصحف	They publish their stories in many local journals	✓		
ST3		تصدرت قضية المهاجرين في سطور الصحف المشهورة	The immigrants' issue published on the headlines of the well-known journals	✓		
ST4		هناك الكثير من المواضيع تنشر في العديد من الصحف	There are many subjects that were published in the many journals		✓	
ST5	The issue is frequently addressed in the American newspapers	يتم تناول قضية المهاجرين بشكل متكرر في العديد من الصحف	The issue of immigrants has been repeatedly dealt in many journals	✓		
ST6		احتلت الهجرة العديد من عناوين الاخبار في الصحف	Immigration has occupied many news headlines in the journals	✓		

ST7	موضوع الهجرة قد تم الاشارة له في الصحف المشهورة الامريكية	The issue of immigration has been addressed in many well-known journals	✓		
ST8	.....	.....			✓
ST9	يتم تناول قضية المهاجرين	The issue of immigration has been dealt ...	✓		
ST10	ان مشكلة المهاجرين اه اه لطالما ذكرت في الصحف	The issue of immigrants ah ah has been addressed in journals	✓		
ST11	اه اه المشكلة انهم اه اه مثل مشاركين في بعض المجلات	Ah ah the problem that they ahah participate in several journals			✓
ST12	الهجرة تنصدر عناوين الصحف	Immigration is addressed in the headlines of journals	✓		
ST13	العديد من الصحف تتكلم عن المهاجرين	Many journals speak about immigrants	✓		
ST14	مشكلة الهجرة تناقشها الكثير من مجلات الولايات المتحدة	The problem of immigration has been discussed by many US Journals	✓		
ST15	.....	.....			✓
ST16	الكثير من الجرائد توجه مشكلة الهجرة	Many newspapers address the problem of immigration	✓		
ST17	ان موضوع الهجرة يتصدر عناوين الصحف الامريكية	The issue of immigration addressed on the headlines of US Journals	✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		الولايات المتحدة تم استعمارها من قبل البريطانيين	US has been colonized by British	✓		
ST2		فان الولايات المتحدة قد اصبحت مستعمرة بريطانية	The US was become a British colony	✓		
ST3		الولايات المتحدة كانت مستعمرة في ..	The US was colonized in ..	✓		
ST4		الولايات المتحدة مستعمرة من قبل البريطانيين	The US was colonized by British	✓		
ST5				✓
ST6		قد استعمرت من قبل البريطانيين	It was colonized by British	✓		

ST7	The US was colonized by British	كانت امريكا تحكم من بريطانيا	American was ruled by British	✓		
ST8		قد تم احتلالها من قبل انكلترا ..	It has been occupied by England	✓		
ST9		.....	.....			✓
ST10		.....	.....			✓
ST11		.....	.....			✓
ST12		الولايات المتحدة اه اه اه استعمرت من قبل بريطانيا	The US was ah ah ah was colonized by British	✓		
ST13		اه اه تم استعمار امريكا ..	America was colonized in ..	✓		
ST14		.....	.....			✓
ST15		.....	.....			✓
ST16		.....	.....			✓
ST17		اميركا كانت محتلة من قبل البريطانيين	America was occupied by British	✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	who used to be called illegal immigrants	الذين يطلق عليهم اليكل عفوا يطلق عليهم ..	Those who were called Illegal sorry they were called...		✓	
ST2		ممن نطلق عليهم بالمهاجرين ..	Those who we call immigrants ...	✓		
ST3		الذين يسمون او جاؤوا عن طريق الهجرة غير..	Those who are called or come from ,,,	✓		
ST4		هناك العديد من الناس ممن يطلق عليهم غير ..	There are many people who are called ...	✓		
ST5		والذين اعتادوا على تسميتهم المهاجرين ..	Those who were called illegal ...	✓		
ST6		والذين يطلق عليهم المهاجرون غير القانونيون	Those who were called illegal immigrants	✓		
ST7		واعتادوا على ان يسموهم بالمهاجرين غير قانونيين ..	They were used to be called illegal ...	✓		
ST8		ما نسميهم بالمهاجرين غير الشرعيين	whom we call illegal ...	✓		
ST9		الذين يسمون بالمهاجرين غير الشرعيين	Those who were called illegal	✓		

ST10	يدعون مهاجرين بدون وثائق رسمية	They were called immigrants without ...	✓		
ST11	وكنا في امريكا نسميهم بالمهاجرين غير الشرعيين	We used to call them in America with illegal...	✓		
ST12	هنالك العديد من الاشخاص في...نسميهم المهاجرون غير ...	There are people in US, we call them ...	✓		
ST13	ونسميهم ويسمون بالمهاجرين غير ..	We call them, they are called ...	✓		
ST14	وكنا نسميهم بالاشخاص غير القانونيين	We were calling them illegal ...	✓		
ST15	.....	.....			✓
ST16	وقد ادان الكثير من الاشخاص المهاجرين غير القانونيين مسمى	Many people have denied calling illegal immigrants	✓		
ST17	كن يسمون بالمهاجرين غير الشرعيين	They were called illegal ...	✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.	
ST1	It was deemed unfair to ...	تم اعتبارها غير عادل بحقهم	It was considered unfair to	✓			
ST2		الذين لالالالاللا يعني لا يحصلون على الوثائق المطلوبة	Who are nononono do not get the needed documents			✓	
ST3		.....	.....			✓
ST4		.....	.....			✓
ST5		.....	.....			✓
ST6		.....	.....			✓
ST7		.....	.....			✓
ST8			يبدو من غير العدل ان نسمي هؤلاء	It seemed unfair that we call those	✓		
ST9					✓
ST10			ويبدو من غير العدل	it seems unfair to	✓		
ST11					✓

ST12	وهذا المصطلح يعتبر غير عادل ..	This terminology is considered unfair	✓		
ST13	.....	.....			✓
ST14	.....	.....			✓
ST15	.....	.....			✓
ST16	.....	.....			✓
ST17	.....	.....			✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		.....	.....			✓
ST2		لم يسمح لهم بالعيش في امريكا	They were NOT allowed to live in ..			✓
ST3		المهاجرون كانوا مسموح لهم بالعيش ..	Immigrants were allowed to live	✓		
ST4		المهاجرين غير مسموح لهم بالعيش	Immigrants were NOT allowed ..			✓
ST5		وسمح للعديد من المهاجرين ..	Many immigrants were allowed ..	✓		
ST6	Immigrants were allowed to live in States	وقد سمح للعديد من المهاجرين للبقاء	Many immigrants were allowed to stay	✓		
ST7		المهاجرون كانوا يسكنون في	They were living in	✓		
ST8		المهاجرين قد سمح لهم بالعيش في ...	Immigrants were allowed to live in ..	✓		
ST9		سمح لهم للعيش في الولايات المتحدة	They were allowed to live in the States	✓		
ST10		سمح لهم للعيش في الولايات المتحدة	They were allowed to live in the States	✓		
ST11		.....	.....			✓
ST12		.....	.....			✓
ST13		المهاجرين سمح لهم للذهاب الى الولايات المتحدة	They were allowed to go to the States		✓	
ST14		المهاجرين سمح لهم بمغادرة الولايات المتحدة	Immigrants were allowed to depart the States			✓
ST15		.....	.....			✓
ST16			✓	

ST17		المهاجرون كان مسموح لهم للسكن ..	Immigrants were allowed to live	✓		
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S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	Immigration was regarded as help for developing countries			✓
ST2		.....	.....			✓
ST3		كانت تساعد الهجرة الدول النامية لابقاء توازن حالتها الاقتصادية ..	Immigration was helping the developing countries to achieve ..	✓		
ST4		كانت الهجرة تعتبر على تطوير الاقتصاد	Immigration was considered development the economy.		✓	
ST5		وكانت تعتبر الهجرة في الماضي على انها مساعدة للبلدان النامية	Immigration was considered in the past as a help .	✓		
ST6		.....	.....			✓
ST7		كانت تعتبر الهجرة مساعدة للدول النامية	Immigration was considered a help for the ...	✓		
ST8		تم اعتبار الهجرة كمساعد لتطوير الدولة للتوازن الاقتصادي	Immigration was considered as a helper to develop the	✓		
ST9		تعتبر الهجرة اه اه اه ككككك	Immigration is considered ah ah ah ah as as as ..			✓
ST10		.....	.....			✓
ST11		.....	.....			✓
ST12		كانت الهجرة تعتبر مساعدة للدول النامية للحفاظ على	Immigration was considered a help for the developing ...	✓		
ST13		كانت تعتبر الهجرة حالة صحية للتوازن الاقتصادي	Immigration was considered a healthy state	✓		
ST14		كانت الهجرة تعد وسيلة مساعدة للدول النامية	Immigration is considered a helping means to the ...	✓		
ST15		اه اه كانت تعتبر كجحيم اه اه على البلدان النامية	Ah ah it was as a hell ahah on the ...			✓
ST16		.....	.....			✓
ST17		اعتبرت الهجرة مساعدة للحفاظ على	Immigration is considered a help to	✓		

Appendix 40

Tables of Analysis of Novices' Renderings of English Collocations into Arabic

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	It is not a piece of cake	هذا الامر ليس سهلا	It is not easy	✓		
ST2		وهذه ليست سهلة	It is not easy	✓		
ST3		انها ليست قطعة حلوة	It is not a piece of sweet			✓
ST4		انها ليست سهلة	It is not a piece of cake	✓		
ST5		بهذا الهجرة ليست قطعة كعكة	It is not a piece of cake			✓
ST6		الحياة هنا صعبة	Life is difficult here	✓		
ST7		انها ليست قطعة كيك	It is not a piece of cake			✓
ST8		انها ليست سهلة	It is not easy	✓		
ST9		لكنها ليست سهلة	But it is not easy	✓		
ST10		انها ليست سهلة	It is not easy	✓		
ST11		انها ليست بتلك السهولة	It is not as easy as it is	✓		
ST12		الموضوع ليس سهلا	It is not easy	✓		
ST13		انها ليست سهلة	It is not easy	✓		
ST14		انها ليس سهلة	It is not easy	✓		
ST15		تعتبر صعبة	It is considered difficult	✓		

ST16		انها ليس سهلة	It is not easy	✓		
ST17		وانه ليس بتلك السهولة	It is not easy	✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	They exert a lot of effort	يصرفون العديد من الجهود في ..	They spent a lot of efforts to ..			✓
ST2		.....	.....			✓
ST3		قبلوا بالتاثير الحاصل عليهم للحصول على وظيفة	They accepted the influence imposed on them to get a job			✓
ST4		.....	.....			✓
ST5		يبدلون الكثير من الجهد للحصول على ..	They exert a lot of effort to get..	✓		
ST6		.....	.....			✓
ST7		يبدلون الجهود الكبيرة للحصول على ...	They exert a lot of efforts to get ..	✓		
ST8		.....	.....			✓
ST9		وهم يبذلون الجهد	They exert efforts	✓		
ST10		وهم يبذلون اقصى الجهود	They exert their greatest efforts	✓		
ST11		.....	.....			✓
ST12		وهم يبذلون جهدهم للحصول على	They exert their efforts to get ...	✓		
ST13		.....	.....			✓
ST14		يجتهدون للحصول على وظيفة	They work hard to get a ...	✓		
ST15		.....	.....			✓
ST16		.....	.....			✓
ST17		يبدلون الكثير من الجهد للبحث عن	They exert a lot of efforts to search for..	✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1				✓
ST2		الحصول على ... هو امر صعب	To get a ...is a hard thing	✓		

ST3	Getting a .. is a very arduous process	الحصول على ... هي عملية شاقة	To get a ..is a arduous process	✓		
ST4		.....	.....			✓
ST5		.....	.....			✓
ST6		.....	.....			✓
ST7		.....	.....			✓
ST8		.....	.....			✓
ST9		عملية شاقة جدا	It is an arduous process	✓		
ST10		فهي عملية اه اه صعبة	It is ahahah hard process	✓		
ST11		.....	.....			✓
ST12		.....	.....			✓
ST13		ليس من السهل	It is not easy to ..	✓		
ST14		.....	.....			✓
ST15		.....	.....			✓
ST16		فهي عملية صعبة	It is a hard process	✓		
ST17		.....	.....			✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	Myriads of Africans moved to ..	عندما قام الافارقة بالنزوح	When ...Africans moved		✓	
ST2		بدا ملايين الافارقة بالهجرة	Millions of Africans started to immigrate		✓	
ST3		هاجر بعض الافارقة	several Africans immigrated to...		✓	
ST4		انتقال الاف الافارقة	Thousands of Africans move to		✓	
ST5		انتقال العديد من الافارقة	many Africans move to	✓		
ST6		عدد كبير من الافارقة	Large number of Africans move to	✓		
ST7		عدد كبير من الافريقيين	Large number of Africans move to	✓		
ST8		انتقال الاف الافارقة	Thousands of Africans move to		✓	
ST9		انتقال اعداد كبيرة من الافارقة	The movement of large numbers of Africans	✓		

ST10	انتقال الافريقيون الى ..	Africans move to ...		✓	
ST11	غادر الكثير من الافريقيين	Many Africans departed to	✓		
ST12	هاجرت اعداد هائلة من افريقيا	Huge numbers of immigrants...	✓		
ST13	العديد من الافريقيين	many Africans departed ...		✓	
ST14	هاجر عدد كبير من الافريقيين	A huge number of Africans departed ...	✓		
ST15	هاجر الافارقة	When Africans immigrated		✓	
ST16	هاجر الافريقيون	Africans immigrated to		✓	
ST17	غادر الكثير من الافريقيين	Many Africans departed to	✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	the possible detrimental effect of the immigration	اثرت الهجرة بشكل كبير	Immigration has great effect		✓	
ST2		لها تأثيرات على الدولة	It has effects on ..		✓	
ST3		للحجرة تأثير كبير	Immigration has great effect		✓	
ST4		للحجرة تأثير مهم	Immigration has an important effect		✓	
ST5		للحجرة تأثير كبير	Immigration has a great effect		✓	
ST6		للحجرة تأثير مهم	Immigration has an important effect		✓	
ST7		للحجرة الاثر الكبير	Immigration has a great effect		✓	
ST8		الهجرة لها تأثير كبير	Immigration has great effect		✓	
ST9		للحجرة لها تأثير كبير	Immigration has a great effect		✓	
ST10		ولها تأثير	It has an effect		✓	
ST11		تؤثر بشكل شديد وسيئ	It affects severely and badly	✓		
ST12		وان اثار الهجرة	The effects of immigration		✓	

ST13	التأثير القوي للهجرة	Big effect of immigrations		✓	
ST14	وللهجرة اثر كبير	Immigration has great effect		✓	
ST15	والهجرة لها تأثير كبير	Immigration has great effect		✓	
ST16	الهجرة لها اثار جدا عديدة	Immigration has too many effects		✓	
ST17	للهجرة تأثير مهم	Immigration has an important effect		✓	

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	I paid a visit to ..	ذهبت لزيارة ...	I went to visit	✓		
ST2		عندما ازور ...	When I visit ..	✓		
ST3		عندما اشتقت الى	When I missed ..			✓
ST4		عندما زرت ...	When I visited ..	✓		
ST5		عندما زرت ...	When I visited ..	✓		
ST6		عندما كنت في زيارة	When I made a visit	✓		
ST7		قمت بزيارة	When I visited	✓		
ST8		قمت بزيارة	When I visited	✓		
ST9		عندما زرت	When I visited	✓		
ST10		عندما زرت	When I visited	✓		
ST11		ذهبت الى ...	I went to	✓		
ST12		ذهبت لزيارة ...	I went to visit	✓		
ST13		ذهبت الى ...	I went to	✓		
ST14		عندما زرت	When I visited	✓		
ST15		.....	.....			✓
ST16		زرت صديقي	visited my friend	✓		
ST17		عندما ذهبت اليها ..	When I went there	✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		العديد من الحشود من ..	Many groups of those ..	✓		

ST2	crowds of undocumented people	هناك من المهاجرين ..	There are among those immigrants		✓	
ST3		هناك الكثير من هؤلاء المهاجرين	There are a lot of those immigrants	✓		
ST4		هناك العديد من الناس	There are many of those immigrants	✓		
ST5		هؤلاء الأشخاص الذين	Those people ..		✓	
ST6		هناك العديد من الناس	There are many of those immigrants	✓		
ST7		هناك العشرات الاف في اميركا	There are thousands of those immigrants		✓	
ST8		هناك العديد من الناس	There are many of those immigrants	✓		
ST9		.....	.....			✓
ST10		هناك العديد منهم	There are many of those	✓		
ST11		.....	.....			✓
ST12		هناك العديد من	There are many of	✓		
ST13		يوجد حشود كبيرة من ..	There are many groups of those ..	✓		
ST14		هناك مجموعة كبيرة من ..	There are a group of those ..	✓		
ST15		.....	.....			✓
ST16		.....	.....			✓
ST17		.....	.....			✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		يقوم المهاجرون بالمخاطرة بحياتهم	Immigrants jeopardize with their lives	✓		
ST2				✓
ST3				✓
ST4		ان المهاجرون يخاطرون بحياتهم	Immigrants jeopardize with	✓		
ST5				✓
ST6		يخطر بعض المهاجرون في البحث	Some immigrants jeopardize with	✓		

ST7	Immigrants often take risks	يخطر اغلب المهاجرون في	Most of the immigrants jeopardize with	✓		
ST8		يقوم المهاجرون في الخطورة	Immigration jeopardize with	✓		
ST9		يخطر المهاجرون	Immigrants jeopardize	✓		
ST10		.....	.....			✓
ST11		.....	.....			✓
ST12		يجازف المهاجرين بالهجرة	Immigrants jeopardize with ..	✓		
ST13		العديد من المهاجرين يتخذون المخاطر	many immigrants take risks ..			✓
ST14		.....	.....			✓
ST15		.....	.....			✓
ST16		يأخذون المهاجرين المخاطر	many immigrants take risks ..			✓
ST17		بعضهم يخطر	some of them take risks	✓		

Appendix 41

Tables of Analysis of Novices' Renderings of English Culture Specific Terms and Structures into Arabic

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	the United States receiving the	تعتبر نسبة المهاجرين في الولايات المتحدة نسبة الاسد	The immigrants' percentage is considered the lion's percentage	✓		
ST2		يوجد الكثير من المهاجرين في امريكا	There are a lot of immigrants in America		✓	
ST3		ان الحصة الاكبر من المهاجرين تتواجد في امريكا	The largest share of immigrants exists in America	✓		
ST4		للولايات المتحدة حصة الاسد من المهاجرين	The US has the lion's share of immigrants	✓		
ST5		تستقبل الولايات المتحدة النصيب الاكبر من المهاجرين	The US receives the largest part of immigrants	✓		

ST6	lion's share of immigrants	الولايات المتحدة تحتل المركز الاول	The US is considered number one country ...	✓		
ST7		للولايات المتحدة حصة الاسد من المهاجرين	The US has the lion's share	✓		
ST8		تاخذ الولايات المتحدة حصة الاسد من المهاجرين	The US takes the lion's share of immigrants	✓		
ST9		.....	.....			✓
ST10		الولايات المتحدة تستقبل العديد من المهاجرين	The US receives a lot of immigrants		✓	
ST11		.....	.....			✓
ST12		للولايات المتحدة نصيب الاسد	The US has the lion's share of immigrants	✓		
ST13		والولايات المتحدة لها الفئة الاكثر منهم	and the US has the largest proportion of immigrants	✓		
ST14		.....	.....			✓
ST15		يوجد الكثير من المهاجرين في امريكا	There are too many immigrants in America		✓	
ST16		امريكا تحتل المنصب الاكبر	America has the largest position of ...	✓		
ST17		يوجد الكثير من المهاجرين في امريكا	There are too many immigrants in America		✓	

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	for not having the bloody documents	لا يملكون الوثائق	They do not have documents		✓	
ST2		لا يملكون الوثائق المطلوبة	They do not have the required documents	✓		
ST3		لعدم امتلاكهم المستندات اءاه الاصلية	For not having the ahah original documents	✓		
ST4		لا يملكون الوثائق الرسمية	They do not have the official documents	✓		
ST5		لا يملكون الوثائق القانونية	They do not have legal documents	✓		
ST6		لانهم ليس لديهم وثائق الدم	Because they do not have the blood documents ...			✓
ST7		لايملكون وثائق الدم	They do not have the bloody documents			✓

ST8	لا يمتلكون الوثائق	They do not have documents		✓	
ST9	لعدم حيازتهم على اه اه الوثائق	because they do not have ahah documents		✓	
ST10	لا يمتلكون الوثائق	They do not have documents		✓	
ST11	.....	.....			✓
ST12	لعدم حصولهم على المستندات	because they do not have document		✓	
ST13	لعدم حصولهم على الوثائق الرسمية	Because they do not have official documents	✓		
ST14	.....	.....			✓
ST15	.....	.....			✓
ST16	.....	.....			✓
ST17	عدم وجود وثائق	they do have documents		✓	

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	Immigrants feel at home	لأنهم حصلوا على حياة كريمة	Because they got a satisfying life	✓		
ST2		.....	.....			✓
ST3		بعض المهاجرين يشعرون انهم في المنزل	Some immigrants feel at their houses			✓
ST4		يشعر المهاجرون على انهم في البيت	Immigrants feel as if they were at their house			✓
ST5		يشعر بعض المهاجرون وكأنهم في بلادهم	many immigrants consider the countries that they immigrated to as if their home countries.	✓		
ST6		العديد من المهاجرين يعدون البلدان التي هاجروا اليها كبلدانهم الاصلية	Because they do not have the blood documents ...	✓		
ST7		والبعض يعتبر الدول المهاجر اليها بمثابة وطن	some people consider the host countries as if they were their home countries.	✓		

ST8	يشعر الآخرون وكأنهم في مكانهم الأصلي	Others feel as if they were at their original place	✓		
ST9	يشعر بعض المهاجرين وكانهم في أوطانهم	Some immigrants feel as if they were at their home countries	✓		
ST10	يشعرون في دولهم	They feel at their home countries	✓		
ST11	يشعرون اه اه براحة أكثر	They feel ah ah ah with more comfort			✓
ST12	يشعر بعض المهاجرين وكانهم في أوطانهم	Some immigrants feel as if they were at their home countries	✓		
ST13	يشعر بعض المهاجرين انهم في بلدانهم	Some immigrants feel as if they were at their home countries	✓		
ST14	.....	.....			✓
ST15	وقد يشعرون بانهم في بلدانهم	immigrants may feel as if they were at their home countries	✓		
ST16	.....	.....			✓
ST17	يشعر العديد ممن هاجروا بالاستقرار في تلك الدول	Many immigrants feel with stableness at these countries	✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1				✓
ST2				✓
ST3		ولذلك سميت متعددة الجنسيات	It is called multi nationals	✓		
ST4				✓
ST5				✓
ST6		تسمى بلد متعدد الاصول	It is called multi origins country	✓		
ST7				✓
ST8		تدعى...وعاء الانصهار	It is called melting pot	✓		

ST9	America is known as the melting pot	تسمى جامعة الاوراق	It is called paper collector			✓
ST10		تسمى الدولة التي تحتوي على العديد من الشعوب	It is called a State which contains many people	✓		
ST11		.....	.....			✓
ST12		لدينا اشخاص من حول العالم	We have people from all over the world		✓	
ST13		تسمى بالبلد المختلطة	It is called a mixed country	✓		
ST14		.....	.....			✓
ST15		.....	.....			✓
ST16		.....	.....			✓
ST17		.....	.....			✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	I paid a visit to my boyfriend	زيارة صديقي	To visit my friend	✓		
ST2		ازور صديقي	I visit my friend	✓		
ST3		اشتقت الى صاحبي	I missed my companion	✓		
ST4		زرت صديقي	visited my friend	✓		
ST5		زرت صديقي	visited my friend	✓		
ST6		زيارة صديقي	visiting my friend	✓		
ST7		زيارة صديقي	visiting my friend	✓		
ST8		زيارة صديقي	visiting my friend	✓		
ST9		زرت صديقي	visited my friend	✓		
ST10		.....	.....			✓
ST11		ذهبت الى صديقي	I went to my friend	✓		
ST12		زرت صديقي	visited my friend	✓		
ST13		ذهبت الى شريكي	I went to my partner	✓		
ST14		عندما زرت حبيبي	I visited my lover		✓	
ST15				✓
ST16		زرت صديقي	visited my friend	✓		

ST17			✓
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S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	Can be hell for some people			✓
ST2		.....	.....			✓
ST3		تكون كالجحيم	It could be hell	✓		
ST4		.....	.....			✓
ST5		تكون كالجحيم	It could be hell	✓		
ST6		.....	.....			✓
ST7		.....	.....			✓
ST8		.....	.....			✓
ST9		.....	.....			✓
ST10		.....	.....			✓
ST11		.....	.....			✓
ST12		تكون كالجحيم	It could be hell	✓		
ST13		تكون كالجحيم	It could be hell	✓		
ST14		تكون كالجحيم	It could be hell	✓		
ST15		.....	.....			✓
ST16		.....	.....			✓
ST17		.....	.....			✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1				✓
ST2		بييعون الهود دوغ في ..	Sell hood doog in ..		✓	
ST3		بييعون النفاق في ..	Sell hot dogs in ...	✓		
ST4		يشتررون النفاق هناك	They buy hot dogs	✓		
ST5		بييعون النفاق في ..	Sell hot dogs in ...	✓		
ST6		بييعون الهود دوغ في ..	Sell hood doog in ..		✓	
ST7		بييعون الهود دوغ في ..	Sell hood doog in ..		✓	

ST8		.....	.....			✓
ST9	Selling hot dogs in the streets	لا يبيعون النفاق في ..	Do not sell hot dogs in ...	✓		
ST10		يبيعون النفاق في ..	Sell hot dogs in ...	✓		
ST11		.....	.....			✓
ST12		يبيعون النفاق في ..	Sell hot dogs in ...	✓		
ST13		يبيعون النفاق في ..	Sell hot dogs in ...	✓		
ST14		يبيعون الهود دوغ في	Sell hood doog in ..		✓	
ST15		.....	.....			✓
ST16		.....	.....			✓
ST17		.....	.....			✓

Appendix 42

Tables of Analysis of Novices' Renderings of English Terms and Structures with Religious Content into Arabic

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	This step ..denounced as a sin	انه حتى يعتبر خطيئة	It might be a sin	✓		
ST2		وهذه الخطوة اصبحت اه اه مدانة من البعض	This step is denied ahahah by some people		✓	
ST3		والبعض ظن انها خطيئة	someone believes it was a sin	✓		
ST4		على انها ذنب مقرف	as it was a loathly sin	✓		
ST5		والبعض اعتبروها خطيئة	someone considers it a sin	✓		
ST6		عدوها اجراء خاطئا	They consider it a wrongful act		✓	
ST7		بعض الناس اعتبروها خطيئة	Some people considered it a sin	✓		

ST8	تم اعتبار هذه الخطوات بأنها خطوات خاطئة	These steps were considered wrongful steps		✓	
ST9	بعدها الكثير انها اه اه قرار خاطئ	It was considered ah ah ah as an incorrect decision		✓	
ST10	اعتبرها بعض الناس على انها خطيئة	Some people considered it a sin	✓		
ST11	.....	.....			✓
ST12	وهذه الخطوة اعتبرها البعض بالظالمة	Someone considers this step as oppressive.	✓		
ST13	لارتكاب العديد من المهاجرين الكبيرة	Because many immigrants have committed major sins	✓		
ST14	وبعض الاشخاص ادانوا هذه الخطوة واعتبروها اثم	Some people denied this step and considered it a sin	✓		
ST15	عبر عنها الناس عن تضاييقهم منها	People showed their dissatisfaction upon this step		✓	
ST16	وهذه الخطوة ادانها الجميع	This step was denied by all people		✓	
ST17	واعتبر العديد هذه الخطوة خطوة غير عادلة	Many considered this step as an unfair one		✓	

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		.....	.....			✓
ST2		الهجرة الى .. تبدو كالجنة	Immigration to ..America seems like paradise	✓		
ST3		الهجرة كأنها الجنة	This immigration seems like paradise	✓		
ST4		وهي تبدو كالجنة	It seems like paradise	✓		
ST5		وهي تبدو كالنعيم	It seems like paradise	✓		
ST6	emigrating to a place like	.....	.....			✓

ST7	America seems like heaven	الهجرة يعتبرونها كالجنة	Immigration is considered as paradise	✓		
ST8		.....	.....			✓
ST9		يعتبرونها كالعلم	It is considered as a dream	✓		
ST10		يظهر ان اه امريكا دولة كالجنة	America is a a State like a paradise	✓		
ST11		.....	.....			✓
ST12		انها قد تكون كالجنة	It could be a paradise	✓		
ST13		امريكا ارض كبلاد الجنة	America is a land like a paradise	✓		
ST14		.....	.....			✓
ST15		.....	.....			✓
ST16		العديد من الناس يرون امريكا كالجنة	For many people, America is seemed like paradise	✓		
ST17		الهجرة الى امريكا تبدو كالجنة	Immigration to America is seems like paradise	✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	they work hard with the patience of a saint	يعملون بصبر كما يعمل القديسين	They work with patience as saints	✓		
ST2		وهم يعملون بتعاون والاحلاص	They work cooperatively and faithfully		✓	
ST3		عملوا عملا جادا وبصبر قوي	They worked seriously with patience		✓	
ST4		.....	.....			✓
ST5		.....	.....			✓
ST6		.....	.....			✓
ST7		.....	.....			✓
ST8		.....	.....			✓
ST9		.....	.....			✓
ST10		.....	.....			✓
ST11		.....	.....			✓

ST12	.....	.....			✓
ST13	.....	.....			✓
ST14	.....	.....			✓
ST15	.....	.....			✓
ST16	.....	.....			✓
ST17	.....	.....			✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	I remember the words of a bishop	اتذكر كلمات القديس الذي ...	I remember the words of saints		✓	
ST2		اتذكر كلمات بيشوب	I remember the words of beeshoop			✓
ST3		اتذكر كلمات صديقي بيشوب	I remember the words of my friend beeshoop			✓
ST4		اتذكر عندما قال بيشوب	I remember when beeshoop says..			✓
ST5		اتذكر كلمات الكاهن الذي قال	I remember the words of the priest ..		✓	
ST6		اتذكر كلمات صديق عندما قال	I remember the words of my friend		✓	
ST7		.....	.....			✓
ST8		.....	.....			✓
ST9		.....	.....			✓
ST10		اتذكر بان احدهم قال	I remember when someone said		✓	
ST11		.....	.....			✓
ST12		اتذكر ان هناك من كان يقول	I remember when someone says..		✓	
ST13		.....	.....			✓
ST14		قال احد الاشخاص الى ..	Someone says to		✓	
ST15		.....	.....			✓
ST16		.....	.....			✓
ST17		اتذكر عندما قال احدا	I remember when one says		✓	

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	Be strong, and let your heart take courage, all you who wait for the LORD!	ان يكونوا اقوياء وان يتبعوا قلوبهم وان يتحلوا بالشجاعة وان يتجهوا الى الرب ويدعوا اليه باخلاص	They should be strong and follow their heart and get the encouragement and supplicate the Lord faithfully	✓		
ST2		كونوا اقوياء ودعوا قلوبكم تعطي القوة	Be strong and let your hearts give power	✓		
ST3		ان يكونوا اقوياء وان يتحلوا بالشجاعة	To be strong and get the encouragement	✓		
ST4		كن قويا ودع قلبك يتحلى بالشجاعة وانتظر ما يكتبه لك الرب	Be strong and let your heart get the encouragement and wait what has been decided by the Lord!	✓		
ST5		كونوا اقوياء ودع قلبك يتشجع انهم ينتظرون استجابة الرب	Be strong and let your heart gets the encouragement. They are waiting for the Lord's response!	✓		
ST6		يجب ان تكونوا اقوياء وتتحلوا بالشجاعة وتنتظروا مساعدة الرب	You should be strong and get the encouragement and wait for the Lord's help	✓		
ST7		اعمل بجد وكانك منتظر للرب	Work hard as if you were waiting for the Lord	✓		
ST8		.....	.....			✓
ST9		.....	.....			✓
ST10		كونوا اقوياء وشجعان اه اه اه ...	Be strong and brave ah ah ah		✓	
ST11		.....	.....			✓
ST12		فلتكن قلوبكم قوية	Let your hearts be strong		✓	
ST13		كونوا اقوياء وشجعان لمن ينتظرون هبة الله	Be strong and brave, for those who are waiting for Allah's gift.	✓		
ST14		تشجع وانتظر الرب ..	Get the encouragement and wait for the Lord		✓	
ST15		.....	.....			✓
ST16		.....	.....			✓

ST17	كونوا قويين وقوا قلوبكم انتظارا لله	Be strong and strengthen your hearts to wait the Lord	✓		
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S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	serving in the churches during Sunday mass			✓
ST2		يقصدون الكنائس في الاحد	They head to churches on Sunday	✓		
ST3		.....	.....			✓
ST4		.....	.....			✓
ST5		يخدمون الكنائس يوم الاحد	They serve the churches on Sunday	✓		
ST6		يخدمون الكنائس يوم الاحد	They serve the churches on Sunday	✓		
ST7		يخدمون الكنائس ايام الاحد	They serve the churches on Sundays	✓		
ST8		يخدمون في الكنيسة في قداس يوم الاحد	Serving the churches on Sunday mass	✓		
ST9		يخدمون الكنائس ايام الاحد	They serve the churches on Sundays	✓		
ST10		يخدمون الكنائس ايام الاحد	They serve the churches on Sundays	✓		
ST11		.....	.....			✓
ST12		يخدمون الكنائس ايام الاحد	They serve the churches on Sundays	✓		
ST13		يخدمون الكنائس ايام الاحد	They serve the churches on Sundays	✓		
ST14		يخدمون الكنائس ايام الاحد	They serve the churches on Sundays	✓		
ST15		.....	.....			✓
ST16		يحضرون الكنائس	They attend the churches	✓		
ST17				✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
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ST1	The land of milk and honey	ارض الخيرات والنعيم	Land of bounties and paradise	✓		
ST2		ارض الحليب والعسل	Land of milk and honey	✓		
ST3		.....	.....			✓
ST4		ارض الحليب والعسل	Land of milk and honey	✓		
ST5		ارض اللبن والعسل	Land of yogurt and honey		✓	
ST6		.....	.....			✓
ST7		ارض الحليب والعسل	Land of milk and honey	✓		
ST8		ارض الحليب والعسل	Land of milk and honey	✓		
ST9		.....	.....			✓
ST10		.....	.....			✓
ST11		.....	.....			✓
ST12		.....	.....			✓
ST13		.....	.....			✓
ST14		ارض الحليب والعسل	The land of milk and honey	✓		
ST15		.....	.....			✓
ST16		.....	.....			✓
ST17		.....	.....			✓

Appendix 43

Analysis Tables of Novices' Renderings during Arabic into English Task

Analysis Tables of Novices' Renderings of Arabic Names into English

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		My name is Ilyas Yousif		✓		
ST2		My name is Ilyas Yousif		✓		
ST3		My name is Ilyas			✓	
ST4		My name is Ilyas Yousif		✓		
ST5		My name is Ilyas Yousif		✓		
ST6		My name is Ilyas Yousif		✓		
ST7		My name is Ilyas Yousif		✓		

ST8	اسمي الياس يوسف	My name is Ilyas Yousif	My name is Ilyas Yousif	✓		
ST9		My name is Ilyas Al You AlYousif			✓	
ST10		My name is Ilyas Yousif		✓		
ST11		My name is Idyas Yousif			✓	
ST12		My name is Ilyas Yousif		✓		
ST13		My name is Idyas Yousif			✓	
ST14		My name is Ilyas Yousif		✓		
ST15		My name is Idyas Yousif			✓	
ST16		My name is Ilyas			✓	
ST17		My name is Ilyas Yousif		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.	
ST1	عقد في مدينة مكسيكو	at Mexico City	hold in Mexico City	✓			
ST2		in Mexico City		✓			
ST3		in Mexico City		✓			
ST4		in Mexico City		✓			
ST5		in Mexico		✓			
ST6		in Mexico City		✓			
ST7		in Mexico City		✓			
ST8		in Mexico City		✓			
ST9		in Mexico		✓			
ST10		in Mexico		✓			
ST11		Held in the city ahahah					✓
ST12		in Mexico		✓			
ST13		in Mexico		✓			
ST14		in Mexico		✓			
ST15		in Mexico		✓			
ST16		in Mexico		✓			
ST17		in Mexico		✓			

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	تم تأسيس اول واقدم جامعة في العالم من قبل فاطمة بنت محمد الفهري	By Fatima the daughter Mohammed Alfehry	The first and oldest university in the world was established by Fatima bint Mohammed AlFehry		✓	
ST2		By Fatima Bint Mohammed Alfehry		✓		
ST3		By Fatima Bint Mohammed Alfehry		✓		
ST4		By Mohammed Alfehry			✓	
ST5		By Fatima the Bint Mohammed Alfehry		✓		
ST6		By Fatima Bint Mohammed Alfehry		✓		
ST7		By Fatima ...			✓	
ST8		.....				✓
ST9		By Fatima Bint Mohammed Alfehry		✓		
ST10		.....				✓
ST11		By Ruqqaya bint Mohammed				✓
ST12		By Fatima Bint Mohammed Alfehry		✓		
ST13		By Fatima Bint ahahah Mohammmd			✓	
ST14		She is Fatima Alfehry		✓		
ST15		By Fatima Alfehry		✓		
ST16		The Tunisian Fatima			✓	
ST17		By Fatima Alfehry		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		The French Marie Curie		✓		
ST2		The French Marie Curie		✓		
ST3		The French Marie Curie		✓		
ST4		The French Marie Curie		✓		
ST5		The French Marie Curie		✓		
ST6		The French Marie Curie		✓		

ST7	الفرنسية ميري كوري	The French Marie	Such as the French Marie Curie		✓	
ST8		The French Marie Curie		✓		
ST9		The French Marie Curie		✓		
ST10		The French Marie Curie		✓		
ST11		.....				✓
ST12		The French Marie Curie		✓		
ST13		such as Marie			✓	
ST14		She is the French Marie Curie		✓		
ST15		such as Marie Curie		✓		
ST16		One of them was Marie			✓	
ST17	The French Marie Curie	✓				

S.	Source Text	Target Text	Back Translation	A.	M.	I.	
ST1	اليمنية توكل كرمان	The Yemeni Tawakkul Karman	The Yemeni Tawakkul Karman	✓			
ST2		Doghel Kerman			✓		
ST3		The Yemeni Tawakkul Karman		✓			
ST4		The Yemeni Tawakkul Kurman		✓			
ST5		Tawakkul Karman		✓			
ST6		Yemeni woman Tuka was					✓
ST7						✓
ST8						✓
ST9		The Yemeni Tawakkul Karman		✓			
ST10		The Yemeni Tawakkul Karman		✓			
ST11						✓
ST12		The Yemeni Tawakkul Karman		✓			
ST13		The Yemeni Tawakkul Karman		✓			

ST14		The Yemeni Tawakkul Karman		✓		
ST15		By Tawakkul Omran			✓	
ST16		The Yemeni Kerman			✓	
ST17		The Yemeni Tawakkul Karman		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.	
ST1	المعمارية العراقية زها حديد	The Iraqi Zaha Hadid	The Iraqi architect Zaha Hadid	✓			
ST2		The Iraqi Zaha Hadid		✓			
ST3		The Iraqi Zaha Hadid		✓			
ST4		The Iraqi Zaha			✓		
ST5		The Iraqi Zaha Hadid		✓			
ST6		The Iraqi Zaha Hadid		✓			
ST7		The Iraqi Zaha Hadid		✓			
ST8		The Iraqi Zaha Hadid		✓			
ST9		The Iraqi Zaha Hadid		✓			
ST10		The Iraqi Zaha Hadid		✓			
ST11						✓
ST12		The Iraqi Zaha Hadid		✓			
ST13		The Iraqi Zaha Hadid		✓			
ST14		The Iraqi Zaha Hadid		✓			
ST15						✓
ST16		the architect Haneen					✓
ST17		The Iraqi Zaha Hadid		✓			

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		British PM Margret Thatcher		✓		
ST2		I should mention Angela Merkel				✓
ST3		British PM Margret Thatcher		✓		

ST4	رئيسة وزراء بريطانيا مارغريت تاتشر	British PM Margret Thatcher	British PM Margaret Thatcher	✓		
ST5		British PM Margret Thatcher		✓		
ST6		British PM Margret Thatcher		✓		
ST7		.....				✓
ST8		British PM Margret Thatcher		✓		
ST9		As ahah Margret			✓	
ST10		British PM Margret Thatcher		✓		
ST11		.....				✓
ST12		British PM Margret Thatcher		✓		
ST13		British PM Margret Thatcher		✓		
ST14		British PM Marie				✓
ST15		.....				✓
ST16		British PM Marie				✓
ST17		British PM Margret Thatcher		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	قال سقراط عن المرأة	Someone said about woman	Socrates said about woman		✓	
ST2		They say about ..			✓	
ST3		Socrates says ..		✓		
ST4		Socrates says ..		✓		
ST5		Socrates says		✓		
ST6		Socrates said about the woman		✓		
ST7		Socrates says ..		✓		
ST8		Socrates says ..		✓		
ST9		Socrates says ..		✓		

ST10		.. ....			✓
ST11		Someone said ..		✓	
ST12		Socrates says ..	✓		
ST13		Socrates says ..	✓		
ST14		Socrates says ..	✓		
ST15		Arscrat said		✓	
ST16		.....			✓
ST17		.....			✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		.....				✓
ST2		Elizabeth Blackwell is ...		✓		
ST3		.....				✓
ST4		Elizabeth Blackwell is ...		✓		
ST5	اليزابيث وتعد بلاك ويل	Elizabeth Blackwell born in		✓		
ST6		Elizabeth Walkwold considered	Elizabeth Blackwell is considered the ..		✓	
ST7		Elizabeth is			✓	
ST8		Blackwell who			✓	
ST9		Liza Blackwell is			✓	
ST10		.... ....				✓
ST11		.....				✓
ST12		Elizabeth Blackwell is ...		✓		
ST13		.....				✓
ST14		Liza born in				✓
ST15		.....				✓
ST16		Blackwell ...			✓	
ST17		Elizabeth is ...			✓	

S.	Source Text	Target Text	Back Translation	A.	M.	I.	
ST1	قد يصل الى النصف في افريقيا	.....	It could reach half in Africa			✓	
ST2		.....				✓
ST3		in Africa		✓			
ST4		in Africa		✓			
ST5		in Africa		✓			
ST6		in Africa		✓			
ST7		.....					✓
ST8		.....					✓
ST9		in Africa		✓			
ST10		.....					✓
ST11		.....					✓
ST12		in Africa		✓			
ST13		in Africa		✓			
ST14		in Africa		✓			
ST15		.....					✓
ST16		.....					✓
ST17		in Africa ...		✓			

S.	Source Text	Target Text	Back Translation	A.	M.	I.	
ST1	المولودة في بريطانيا	.....	Who was born in Britain			✓	
ST2		in Britain		✓			
ST3		born in Britain		✓			
ST4		in Britain		✓			
ST5		in Britain		✓			
ST6		.....					✓
ST7		In Britain		✓			
ST8		.....					✓
ST9		in the US					✓
ST10		.....					✓
ST11		.....					✓

ST12		.....			✓
ST13		.....			✓
ST14		in Britain	✓		
ST15		.....			✓
ST16		.....			✓
ST17		.....			✓

Appendix 44

Analysis Tables of Novices' Reports during Arabic into English SI Task

Analysis tables of novices' reports during rendering Arabic names into English

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	
ST1							1									1
ST2																
ST3																
ST4	1												1			2
ST5																
ST6	2												1			3

ST7																
ST8																
ST9																
ST10	3															3
ST11	8											1				9
ST12	1							1								2
ST13								3							1	4
ST14	3															3
ST15	3							2								5
ST16	7							1								8
ST17								1						1		2
Total	28	1					1	8					3	1	1	42

Analysis table of novices' reports during rendering Arabic numbers into English

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	
ST1																
ST2																
ST3															2	2
ST4													1			1
ST5															1	1
ST6	1							2								3
ST7																
ST8																
ST9	1							3				1				5
ST10	3							4								7
ST11															7	7
ST12	1														1	2
ST13															6	6
ST14								2								2
ST15	5												1			6
ST16	3							3								6
ST17	1															1
Total	15							14				1	2		17	49

Analysis table of novices' reports during rendering Arabic passive voice into English

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	
ST1																
ST2																

ST3		1	1														2
ST4			1														1
ST5																	
ST6	1	1	1													1	4
ST7																	
ST8												5					5
ST9	1																1
ST10	3																3
ST11																5	5
ST12	3																3
ST13																4	4
ST14		2					1										3
ST15	1	3															4
ST16	3		1				2										6
ST17													1			2	3
Total	12	7	4				2	1					6			12	44

Analysis table of novices' reports during rendering Arabic collocations into English

S.	Comprehension					Translation		Simultaneity		Monitoring						Total	
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id		
ST1																	
ST2																	
ST3		1															1
ST4																	
ST5																	
ST6		1										1					2
ST7																1	1
ST8												2					2
ST9												1					1
ST10																3	3
ST11																4	4
ST12																3	3
ST13																4	4
ST14							1					1					2
ST15	2	4															6
ST16	2												1				3
ST17	3												1				4
Total	7	6					1					1	6			15	36

Analysis table of novices' reports during rendering Arabic culture specific terms and structures into English

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
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	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	
ST1							1									1
ST2																
ST3													1			1
ST4																1
ST5		1														1
ST6							2						1			3
ST7																
ST8	4															4
ST9	2											1				3
ST10	1					1										2
ST11	1												3			4
ST12													3			3
ST13	3											1				4
ST14	3												1			4
ST15	1															1
ST16	2												1			3
ST17															2	2
Total	17	1				1	3					2	12		2	37

Analysis table of novices' reports during rendering Arabic terms and structures with religious content into English

S.	Comprehension					Translation		Simultaneity		Monitoring						Total
	P	L	Syn	TC (intg)	TC (bgkn)	TLr	equ	SL. (TL)	Tr.de l	Tr	insp	T	M	int	Id	
ST1																
ST2																
ST3						1										1
ST4							1							2		3
ST5							1					1	1			3
ST6															6	6
ST7																
ST8													5			5
ST9	3												1			4
ST10	2					1	1						1	1		6
ST11	2						1			1	1	1	1	1		8
ST12						4										4
ST13	4												2			6
ST14	2												3			5
ST15	1					2										3
ST16	3												3			6
ST17															6	6

Total	1				8	4			1	1	2	1	2	12	66
	7											9			

Appendix 45

Nature of Novices' Inadequate Renderings during Arabic into English SI Task

Nature of novices' inadequate renderings of Arabic names into English

Examples of novices' recourse to omission during rendering Arabic names into English

S.	Source Text	Target Text
ST8	في الزراعة قد يصل إلى النصف في أفريقيا. وحتى على الصعيد العسكري	the women workers ...even in the military level

ST10	علاج الجرحى في أثناء المعارك. وتعد اليزابيث بلاك ويل المولودة في بريطانيا اول طبيبة	who are injures in wars...there are number of women in medical ah..has..
ST15	ولا يفوتني ان اذكر المعمارية العراقية زها حديد "رحمها الله" التي اشتهرت	in women development ....and she like...

Examples of novices' recourse to skipping part of the names during the SI task from Arabic into English

S.	Source Text	Target Text
ST3	اسمي الياس يوسف	My name is Ilyas
ST7	اقدم جامعة في العالم من قبل فاطمة بنت محمد الفهري	The oldest university ..by Fatima
ST13	منهن الفرنسية ميري كوري	Among them Marie
ST16	اليمنية نوكل كرمان	the Yemeni Kerman
ST9	رئيسة وزراء بريطانيا مارغريت تاتشر	The British Margaret

Examples of the effects of the problems with rendering names on other segments during novices' rendering from Arabic into English

S.	ST	TT	Back Translation
ST15	ماركريت تاتشر التي لقبت بالمرأة الحديدية. قال سقراط عن المرأة: بأنها أجمل هدية من الباري إلى الإنسانية" وفي مجال الزراعة	the hhh.....iron ...Arscart say..... the ratio of a women in ...	Margret Thatcher was nicknamed the iron woman. Socrates said woman is the most beautiful present from the almighty to humanity ..
ST13	تم تأسيس اول وأقدم جامعة في العالم من قبل امرأة عربية هي التونسية فاطمة بنت محمد الفهري عام 877 م. وفي وقتنا الحاضر تسهم المرأة بقوة في رشد المؤسسات التربوية والتعليمية بالبحوث والدراسات التي تعمل على رفع مستوى البحث العلمي	the first and oldest university was established by a woman Fatima bint Moha ahah Fatima Mohammed in .....877 women are ahahah women ....an	The first and oldest university in the world was established by Arab woman; she is the Tunisian Fatiman Bint Mohammed Alfihry in 877. Today, woman contributes strongly in ...
ST11	حصدت جائزة نوبل للسلام العديد من النساء منهن الفرنسية ماري كوري التي حصلت على جائزة نوبل مرتين في مجالين مختلفين. وعربيا تعد اليمنية	women got the certificate of nobel for peace ahahah there are woman by.... nobel she is was Arabian ahahah ...for his	She has been awarded Nobel peace prize among them Marie Curie, who was received the prize twice in two different fields. The

	توكل كرمان أول امرأة عربية تفوز ب ...		Arabian Tawakel Kerman is
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Nature of novices' inadequate renderings of Arabic numbers into English

Examples of novices' misinterpretation of Arabic numbers into English

S.	Source Text	Target Text	Back Translation
ST9	منذ سبعينيات القرن الماضي	Since 9070 woman rights movement has	Since the seventies of the last century..
ST10	تم تأسيس اول واقدم جامعة عام 877	The first university has been established by an Arab woman in 1878	The first ..university was established by... in 877
ST13	وصل عدد النساء بالجيش الاميركي 25000	women and also in army 250	The number of women in US army reached 25000
ST16	حصلت على شهادة عام 1849	who took a certificate in medicine in 1944	She obtained a degree in 1849

Examples of novices' recourse to omission during rendering Arabic numbers into English

S.	Source Text	Target Text	Back Translation
ST1	وصل عدد النساء المتطوعات بالجيش الأمريكي في اثناء الحروب الى 25000 مجندة	the number of women that volunteer in the US	The number of women who volunteered in the US army reached 25000 during wars
ST7	تم تأسيس اول وأقدم جامعة في العالم من قبل امرأة عربية هي التونسية فاطمة بنت محمد الفهري عام 877 م	the most ancient university was established ... in...	The first and oldest university has been established by ....in 877.
ST11	تصل نسبة النساء الى 49%	women ... society	The ratio of women reaches 49%.
ST16	اذ نلاحظ ثلثي الكادر من العنصر النسوي	that ...of the staff are women	We notice two thirds of staff are women

Nature of novices' inadequate renderings of Arabic passive voice into English

Examples of novices' recourse to omission during rendering Arabic passive voice into English

S.	Source Text	Target Text	Back Translation
ST15	عقد الاجتماع العالمي الاول عام 1975 في مدينة مكسيكو	rights of women increasing by and in around 1950 in Mexico	The first global meeting was held in 1975
ST7	تم اسناد العديد من المناصب المهمة	there were.... in many great countries	Many important positions have been awarded to women
ST11	وفي مجال السياسة عدت المرأة جزءا مهما	in politics she has...	Woman was considered an important part in ...
ST10	ماركريت تاتشر التي لقت بالمرأة الحديدية	Margret Thatcher the prime minister of Britain ...	Margret Tatcher who was nicknamed with iron woman
ST5	وقد تم تعيينها سفيرة "اليونسكو" للفترة ما بين 2010-2014	the global level ....in the United Nation UNESCO for the period 2010 and 2014	She was appointed as an ambassador of UNESCO between 2010 and 2014

Examples of novices' misinterpretation of Arabic passive voice into English

S.	Source Text	Target Text	Back Translation
ST3	عقد الاجتماع العالمي الاول	The meeting has convinced at ...	The first global meeting has been held in
ST11	تم سن قانون القضاء على كافة اشكال العنف ضد المرأة	They call against woman	A law to eliminate all forms of violence against woman has been enacted
ST1	تم تعيينها سفيرة لمنظمة اليونسكو	That is followed the UNESCO	She has been assigned as an ambassador at UNESCO
ST15	تم اسناد العديد من المناصب المهمة	There are many big jobs for women	Many important positions have been awarded to women
ST11	التي لقت بالمرأة الحديدية	I can the woman iron	Who has been called the iron woman

Nature of novices' inadequate renderings of Arabic collocations into English

Examples of novices' recourse to omission during rendering Arabic collocations into English

S.	Source Text	Target Text	Back Translation
ST10	فهي تقف بجانب الرجل في السراء والضراء	modern the society is you should see their women...women education is very	She stands beside man in good and bad times. The education of woman
ST7	فقد حصلت جائزة نوبل	we do not forget Nobel	She has been awarded Nobel peace prize
ST11	جزءا مهما في صنع القرار السياسي	she joined to have the right for parliament elections	Woman was considered an important part in political decision making for her participation in parliamentary
ST9	وتشريع القوانين المهمة	in making the political decision	and legislating important laws. In the executive power
ST13	عند مراجعتنا الى المستشفيات	we notice that around the half of medical doctors are women	we notice when we visit hospitals that two thirds of staff are women

Examples of novices' misinterpretation of Arabic collocations into Arabic

S.	Source Text	Target Text	Back Translation
ST1	اسمحوا لي ان اسلط الضوء	Let me shine in	Let me shed light on
ST4	تبذل المرأة جهودا كبيرة	The woman make enforce at home	Woman exerts a lot of efforts in
ST16	فقد حصلت جائزة نوبل للسلام	Nobel for peace is taken by women	Nobel peace prize has been awarded to ...
ST8	وتشريع القوانين المهمة	And passing important laws	Legislation of important law

Nature of novices' inadequate renderings of Arabic culture specific terms and structures into English

Examples of novices' recourse to omission during rendering Arabic culture specific terms and structures into English

S.	Source Text	Target Text	Back Translation
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ST9	فهي الأم والأخت والزوجة والخالة	she is the mother and sister and the wife...	she is the mother, sister, wife, and aunt.
ST2	كانت والدتي تقضي وقتا طويلا في طبخ الأكلات التي نحبها	She was spending much of time ...and frankly ...	My mom used to spend a lot of time cooking our favorite meals ..
ST4	وقد استوقفني المثل	and a proverb ...if you want to ...	I remember a proverb that says...
ST11	لا أحب شرب الحساء في الصباح الا من يديها. أتذكر أيضا	I hate to eat the soup at the morning... I can remember she ...	I do not like to have soup in the morning unless she made it herself

Examples of novices' literal rendering of Arabic culture specific terms and structures into English

S.	Source Text	Target Text	Back Translation
ST1	الا من يديها	But from her hands	Unless made by her
ST11	استوقفني المثل	A proverb stopped me	I remember a proverb which says...
ST6	نرفع لها القبعة	We must raise the hat	Greet her

Nature of novices' inadequate renderings of Arabic terms and structures with religious content into English

Examples of novices' recourse to omission during rendering terms and structures with religious content

S.	Source Text	Target Text	Back Translation
ST2	كانت تستيقظ منذ صلاة الفجر لتبدأ حملة التنظيف	she was waking and cleaning when there wasn't modern	She used to wake up early morning to start cleaning
ST17	مثل الرجل فهي نصف المجتمع. وهنا أذكركم بحديث المصطفى " صلى الله عليه وسلم " الجنة تحت أقدام الأمهات". وقد استوقفني	she is half of it and ...I also remembered a word that says	Like man as she is half of the society. Here I remind you of the AlMusta's hadith "PBUH" paradise is under the mother's feet"

ST4	اذكر المعمارية العراقية زها حديد "رحمها الله" التي اشتهرت في مجال	I have to the architect Zuha Hadid... which is famous in the	I remember the architect Zuha Hadid "may her soul rest in peace"who was famous in ..
ST15	قال سقراط عن المرأة: بأنها أجمل هدية من الباري إلى الإنسانية" وفي مجال الزراعة	community the iron ...Arscart say ....the ratio of a women	Socrates said about woman that she is the most beautiful present from the Almighty to humanity
ST10	ومن هنا ندرك ان علينا البر بها فتحية للمرأة	would like to remind you this verse And.... I want to salute all women	Here we should take care of woman ...

Appendix 46

Strategies Applied by the Novices during the Arabic into English SI Task

Strategies Applied by the Novices during Rendering Arabic Names into English

S.	Source Text	Target Text	Back Translation	Strategy
ST13	ميري كوري	Marie	Marie Curie	skipping
ST16		Marie		Skipping
ST1	سقراط	Someone said about woman	Socrates	generalization

ST11		Someone said ..		generalization
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Strategies applied by the novices during rendering Arabic numbers into English

S.	Source Text	Target Text	Back Translation	Strategy
ST9	وصل عدد النساء بالجيش الاميركي 25000	There is a lot of women	The number of women in US army is 25000	Generalization
ST7	ثلثي الكادر من العناصر النسوية	Two parts	Two thirds of the staff are women	Approximation

Strategies applied by the novices during rendering Arabic collocations into English

S.	Source Text	Target Text	Back Translation	Strategy
ST6	عند مراجعتنا الى المستشفيات	Go to hospitals	visit the hospitals	approximation
ST10		We enter the hospitals		generalization
ST17		We can see in the hospital		generalization
ST3	السراء والضراء	at Good and bad situations	in good and bad times	approximation
ST16		they stand besides every time	Have soup	generalization
ST12		شرب الحساء		Have soup	inferencing
ST14	اخطاء فادحة	made a mistake	serious mistakes	skipping

Strategies applied by the novices during rendering Arabic culture specific terms and structures into English

S.	Source Text	Target Text	Back translation	Strategy
ST6	مايتلج الصدر	What really fair	What is heart- warming	Approximation
ST9		It makes our world is better		Approximation
ST12		It is satisfying		Inferencing
ST9		We have to appreciate woman		Approximation

ST16	نرفع لها القبة	We should all respect her for her efforts	We all should appreciate her efforts	Generalization
ST9	وقد استوقفني المثل	There is a saying that means	A proverb comes to my mind	Summarizing

Strategies applied by the novices during rendering Arabic terms and structures with religious content into English

S.	Source Text	Target Text	Back Translation	Strategy
ST3	ووصينا الانسان	wawasaina Alinsana	And We have	Reproduction
ST5	بوالديه حملته امه	Biwalidaih Hamalathu	enjoined upon man	Reproduction
ST9	وهنا على وهن	Umuhu wahnna Ala Wahn	concerning his parents. His	Reproduction
ST11		.....	mother beareth him in weakness upon weakness,	Skipping
ST5	رحمها الله	.....	May she rest in	Skipping
ST14		.....	peace	Skipping
ST10		.....		Skipping
ST12	علينا البر بها	It is really important to respect women	We do good for her	Generalization
ST14	اذكركم بحديث المصطفى "صلى الله عليه وسلم" الجنة تحت اقدام الامهات	I remind you of Mohammed's hadith which is the paradise is under the mothers' feet	I remind you of the hadith Almustafa "PBUH" "paradise is under the mothers' feet"	Skipping

Appendix 47

Analysis Tables of Novices' Renderings of Arabic Numbers into English

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		A global meeting in 1975		✓		
ST2		Was held in 1967				✓
ST3		The meeting...in 1975		✓		
ST4		in the 1975		✓		

ST5	عقد الاجتماع العالمي الاول عام 1975	in the 1975	The first meeting was held in 1975	✓		
ST6		in the 1757				✓
ST7		in 1957				✓
ST8		in 1957				✓
ST9		in 9070				✓
ST10		In 1900				✓
ST11		.....				✓
ST12		in 1975		✓		
ST13		in 1975		✓		
ST14		in 9075				✓
ST15		In 1950				✓
ST16		In 1975		✓		
ST17		in 1975		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	ومند سبعينيات القرن الماضي	Since the seventies of	Since the seventies of the last century	✓		
ST2		Since the seventies of		✓		
ST3		Since the seventies		✓		
ST4		Since the seventeens				✓
ST5		Since seventies		✓		
ST6		In seventeen fifty five				✓
ST7		In seventies		✓		
ST8		In seventies		✓		
ST9		in ninety seventy				✓
ST10		In seventies		✓		
ST11		seventy century				✓
ST12		in seventies		✓		
ST13		in seventies		✓		
ST14		in seventies		✓		
ST15		Since the seven centuries				✓
ST16					✓

ST17		in seventh century				✓
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S.	Source Text	Target Text	Back Translation	A.	M.	I.	
ST1	تصل نسبة النساء الى 49%	It reaches 94%	The percentage of women is 49%			✓	
ST2		It reaches 94%				✓	
ST3		It is 49%		✓			
ST4		It is 49%		✓			
ST5		It is 49%		✓			
ST6		It is 49%		✓			
ST7		It is 49%		✓			
ST8		It is 49%		✓			
ST9						✓
ST10						✓
ST11						✓
ST12		It is 49%		✓			
ST13		It reaches 94%					✓
ST14		It is 49%		✓			
ST15		It is 49%		✓			
ST16		It is 49%		✓			
ST17		It is 49%		✓			

S.	Source Text	Target Text	Back Translation	A.	M.	I.	
ST1	تم تأسيس اول واقدم جامعة عام 877	In the year of 877	The first and oldest university was established in 877	✓			
ST2		In the year of 877		✓			
ST3		In the 877		✓			
ST4		In the 877		✓			
ST5		In 877		✓			
ST6		In 1977					✓
ST7						✓
ST8		In 977					✓
ST9						✓

ST10		In 1878				✓
ST11		In 1978				✓
ST12		In 1878				✓
ST13		In the 877	✓			
ST14		In 1877				✓
ST15		In the 1875				✓
ST16		In the 1877				✓
ST17		In the 877	✓			

S.	Source Text	Target Text	Back Translation	A.	M.	I.	
ST1	تم تعيينها بين عامي 2010	Between 2010	She has been appointed between 2010	✓			
ST2		Between 2010		✓			
ST3		Between 2010		✓			
ST4		Between 2010 and		✓			
ST5		Between 2010		✓			
ST6						✓
ST7		Between 2010		✓			
ST8						✓
ST9		Between 2012		✓			
ST10		Between 2010 and		✓			
ST11						✓
ST12		Between 2010 and		✓			
ST13		Between 2010 and		✓			
ST14		Between 2010		✓			
ST15						✓
ST16						✓
ST17		Between 2010		✓			

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		Between... and 2014		✓		
ST2		Between ...and 2014		✓		

ST3	تم تعيينها بين .. و 2014	2014	and 2014	✓		
ST4		.....				✓
ST5		And 2014		✓		
ST6		.....				✓
ST7		Between ... and 2014		✓		
ST8		.....				✓
ST9		Between... and 2014		✓		
ST10		.....				✓
ST11		.....				✓
ST12		Between... and 2040				✓
ST13		Between ... and 2014		✓		
ST14		Between... and 2014		✓		
ST15		.....				✓
ST16		.....				✓
ST17		Between ...and 2014		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	وصل عدد النساء بالجيش الاميركي 25000	.....	The number of women in US army is 25000			✓
ST2		is 25000		✓		
ST3		Is 25000		✓		
ST4		is 20000				✓
ST5		is 25000		✓		
ST6		is 25000		✓		
ST7		is 25000		✓		
ST8		is 25000		✓		
ST9		There is a lot of women			✓	
ST10		Is 55000				✓
ST11		.....				✓
ST12		is 250000				✓
ST13		Is 250				✓
ST14		Is 25000		✓		

ST15		is 2000				✓
ST16		Is 25000		✓		
ST17		Is 25				✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		.....				✓
ST2		In 895				✓
ST3		In 1849		✓		
ST4		In 1949				✓
ST5		In 1849		✓		
ST6	حصلت على شهادة عام 1849	in 8049	She obtained a degree in 1849			✓
ST7		In 1889				✓
ST8		In 1949				✓
ST9		.....				✓
ST10		.....				✓
ST11		.....				✓
ST12		In 1849		✓		
ST13		.....				✓
ST14		.....				✓
ST15		.....				✓
ST16		In 1944				✓
ST17		.....				✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		.....				✓
ST2		We see two thirds		✓		
ST3		We see two thirds		✓		
ST4		Two quarters				✓
ST5	ثلثي الكادر من العناصر النسوية	Two thirds		✓		
ST6		.....	Two thirds of the staff are women			✓
ST7		Two parts			✓	

ST8		Third of ..			✓	
ST9		.....				✓
ST10		.....				✓
ST11		.....				✓
ST12		.....				✓
ST13		.....				✓
ST14		Thirty thirds of the				✓
ST15		Around the half of				✓
ST16		.....				✓
ST17		Quarter of the ...				✓

Appendix 48

Analysis Tables of Novices' Renderings of Arabic Passive Voice into English

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		The claims of woman rights begins to raise by the organizations		✓		

ST2		Life demands starts growing from the world organization			✓
ST3		The demands of woman' rights have increased from the international organizations	✓		
ST4	بدايات المطالبات بحقوق المرأة تتزايد من قبل المنظمات الدولية	The demands started about human rights increase from international organizations		✓	
ST5		Demands from women right began to increase by the international organizations	✓		
ST6		many demands have increased about the woman right by international organizations	✓		
ST7		The request for the women's rights were increasing by international organizations	✓		
ST8		Demands began to increase by the international organizations to human rights		✓	
ST9		Women's rights has started by international organization	✓		
ST10		The demanding of human rights has been increased by the international organization		✓	
ST11		Women's role raised and appeared in the society			✓
ST12		The claims of women's rights start to increase by the international organizations	✓		
ST13		women rights begin to increasingly emerged by international organizations	✓		

Demands have been increased by the international organization

ST14	The demands for the women rights have increased by the international organizations	✓		
ST15	The rights of women increasing by...	✓		
ST16	the woman right has been established by the global society		✓	
ST17	The demands of women rights has been increased by the international organizations	✓		
S.	Target Text	A.	M.	I.
ST1	There was global meeting in	✓		
ST2	The first meeting was held in	✓		
ST3	The meeting has convinced at			✓
ST4	The first meeting has held on	✓		
ST5	The first international meeting held in ..	✓		
ST6	the first meeting held in Mexico city in 1975	✓		
ST7	The first interview was held		✓	
ST8	The first world conference was held in	✓		
ST9	The first meeting was held in	✓		
ST10	The first meeting has been need in ..			✓
ST11	The international meeting held in the city	✓		
ST12	The first meeting was held in	✓		
ST13	In 1975 was the first meeting	✓		

ST14		The first meeting was held in	✓		
ST15		The first meeting started in	✓		
ST16		.....			✓
ST17		The first meeting held in	✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		There was a law to eliminate all violence against woman		✓		
ST2		There was the initiation of law to finish things that is ...				✓
ST3		They released a new law and eliminate all the violence against woman		✓		
ST4		The law made against violence's women	A law has been enacted against all types of violence against women	✓		
ST5		A law to eliminate all forms of violence against women was enacted		✓		
ST6		it enacted a law for forbidding the violence against the woman		✓		
ST7	تم سن قانون القضاء على كافة اشكال العنف ضد المرأة	There was a law enacted to anti violence against woman		✓		
ST8		They passed a law which says to eradicate all kinds of violence against the women		✓		
ST9		the law of the elimination of the violence against women has been enacted		✓		
ST10		A law has been implemented against		✓		

		all kinds of violence against woman			
ST11		they collect hh call against woman			✓
ST12		And enact a law that says all kinds of violence must stop	✓		
ST13		Law of violence against woman emerged	✓		
ST14		A law was made to eliminate all forms of violence against woman	✓		
ST15		.....			✓
ST16		There was a law to discard any violence against woman	✓		
ST17		The law of elimination of all kinds of violence against women established	✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	تم تأسيس اول واقدم جامعة في العالم من قبل امراة عربية	The first university was published in the world by an Arabic woman	The first and oldest university in the world was established by Arabic woman		✓	
ST2		The oldest first university in the world by the woman			✓	
ST3		The first university in the world was founded by a Tunisian woman		✓		
ST4		The first and oldest university in the world by the Arabian woman			✓	
ST5		The first and the oldest university in the world was founded by the Tunisian woman		✓		
ST6		the first and oldest university was established by the Arabian woman		✓		

ST7	The first university in the world was established by the Tunisian woman	✓		
ST8	The first university was founded in the world by an Arabic woman	✓		
ST9	the first university was established by an Arab girl	✓		
ST10	The oldest university has been established by an Arabic woman	✓		
ST11	Most historical university was built by woman	✓		
ST12	The first university in the world was established by a Tunisian woman	✓		
ST13	The first and the oldest university was established by a woman	✓		
ST14	The first and oldest ..was made by Arabic woman		✓	
ST15	Old university is established by woman	✓		
ST16	It has been established the oldest university by a woman	✓		
ST17	The oldest university was established by an Arabic woman	✓		
S.	Target Text	A.	M.	I.
ST1	That is followed by the UNESCO			✓
ST2	It is mentioned as ...ambassador of the UN		✓	
ST3	She was appointed as ambassador of UNESCO	✓		
ST4	They hired her in cultural and educational of UNESCO			✓
ST5	.....			✓

ST6		and ambassador educational for UNESCO			✓
ST7		she was member of UNESCO			✓
ST8		She was assigned an ambassador ...	✓		
ST9		Hhh she was UNESCO ambassador	✓		
ST10		She has been appointed as ambassador of UNESCO	✓		
ST11		She was related to united American for UN			✓
ST12		She was appointed to be an ambassador of UNESCO	✓		
ST13		She is the ambassador of she is the ambassador in UNESCO	✓		
ST14		She was appointed as ambassador in UNESCO	✓		
ST15		.....			✓
ST16		She appointed in organization that is related to US			✓
ST17		She was ambassador to UNESCO	✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		the woman was the important part in the making of political choices		✓		
ST2		Woman considered as hhhh various impact				✓
ST3		Women are considered as an important discussion making		✓		
ST4		Woman is considered it the most important part to make the law		✓		

ST5	عدت المرأة جزءا مهما في صنع القرار	Women are considered as important part of political decision making	Woman was considered a very important part in decision making	✓		
ST6		the woman is considered an important part in making a political decisions		✓		
ST7		the women were important part in making the political decision		✓		
ST8		Woman was regarded as great..		✓		
ST9		Woman is considered as an important part		✓		
ST10		.....				✓
ST11		.....				✓
ST12		Women were considered very important to		✓		
ST13		.....				✓
ST14		.....				✓
ST15		.....				✓
ST16		.....				✓
ST17		Women also considered an important part			✓	

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		A lot of women in the world has been given important positions		✓		
ST2		They obtained a lot duty				✓
ST3		many important positions were assigned to women		✓		
ST4		On the position that woman take it in the society				✓
ST5		Many important positions were assigned to women		✓		

ST6	تم اسناد العديد من المناصب المهمة	many women in many great countries occupied many great jobs	Many important positions have been awarded to women	✓		
ST7		.....				✓
ST8		.....				✓
ST9		Many important positions were given to women		✓		
ST10		A lot of women ..in the big countries has been involved in a high position		✓		
ST11		Woman have a lot of positions now			✓	
ST12		A lot of positions were appointed to a lot of women in very great countries		✓		
ST13		A lot of important status for women in great countries			✓	
ST14		.....				✓
ST15		There are many big jobs for women			✓	
ST16		.....				✓
ST17		.....				✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		They gave her the name of the steel woman		✓		
ST2		They call her iron lady		✓		
ST3		She called the iron woman			✓	
ST4		We called her the iron woman		✓		
ST5		She was called the iron woman		✓		
ST6		She was called an iron woman		✓		
ST7					✓

ST8	التي لقبّت بالمرأة الحديدية	Which called the iron woman	She nicknamed the iron lady	was		✓	
ST9		Also known as iron woman			✓		
ST10		.....					✓
ST11		I can the woman iron woman					✓
ST12		.....					✓
ST13		She is called the iron woman			✓		
ST14		She nicknamed as iron woman				✓	
ST15		.....					✓
ST16		She is known as the iron woman			✓		
ST17		.....					✓

Appendix 49

Analysis Tables of Novices' Renderings of Arabic Collocations into English

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		Let me shrine on				✓

ST2	اسمحوا لي ان اسلط الضوء على	Let me introduce you to	Let me shed light on	✓		
ST3		Let me spotlight on		✓		
ST4		Let me focus on		✓		
ST5		Allow me to focus on		✓		
ST6		allow me to highlight on		✓		
ST7		Allow me to highlight		✓		
ST8		Allow me to highlight		✓		
ST9		Allow me to talk about		✓		
ST10		Let me shed some lights on		✓		
ST11		Let me focus on		✓		
ST12		I would like to talk about		✓		
ST13		I may spot the light on		✓		
ST14		I am talking about		✓		
ST15		To highlight an		✓		
ST16		Allow me to focus on		✓		
ST17		Let me talk about		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.	
ST1	تبذل المرأة جهودا كبيرة	Woman doing great efforts	Woman exerts a lot of efforts in		✓		
ST2		Woman offers a lot of efforts			✓		
ST3		The woman gaining huge efforts					✓
ST4		The woman make enforce at home					✓
ST5		Woman make great efforts				✓	
ST6		the women do her best and great effort			✓		
ST7		Women exert a great effort			✓		
ST8		Woman exerts great efforts			✓		
ST9		Women are making great efforts				✓	
ST10		Woman makes a lot of efforts				✓	

ST11		She has many roles			✓
ST12		Women make a lot of efforts		✓	
ST13		She puts a lot of efforts		✓	
ST14		Women make a big effort		✓	
ST15		Women work hard in house	✓		
ST16		She do a great effort		✓	
ST17		Women make an enormous effort in the house		✓	

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	لا احب شرب الحساء في الصباح	I do not love drink soup	I do not like to have soup in the morning		✓	
ST2		I do not like to drink soup			✓	
ST3		I do not like to drink soup			✓	
ST4		I dislike to drink soup			✓	
ST5		I do not like to drink soup			✓	
ST6		I do not like drinking soup in the morning			✓	
ST7		I do not like drinking soup			✓	
ST8		I do not like eating soup			✓	
ST9		I do not like drinking soup			✓	
ST10		I only like eating soup			✓	
ST11		I hate to eat the soup			✓	
ST12		I do not like to have a soup			✓	
ST13		I do not like drinking the soup			✓	
ST14		I do not like drinking the soup			✓	
ST15		I love to eat the soup			✓	
ST16		I do not like soup			✓	
ST17		I do not like to eat soup			✓	

S.	Source Text	Target Text	Back Translation	A.	M.	I.
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ST1	تقف بجانب الرجل في السراء والضراء	She stands ...in soundness and badness	She stands by man in good and bad times		✓	
ST2		In good and bad days		✓		
ST3		at good and bad situations		✓		
ST4		In the thick and thin		✓		
ST5		In good and bad		✓		
ST6		In good and bad		✓		
ST7		In good and bad situations		✓		
ST8		In the upsides and the downs			✓	
ST9		Woman supports man			✓	
ST10		.....				✓
ST11		.....				✓
ST12		In thick and thin		✓		
ST13		In good and bad times		✓		
ST14		In happiness and sadness		✓		
ST15		.....				✓
ST16		They stand besides every time			✓	
ST17		For better or for worse		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		Woman acquires Nobel prize for peace			✓	
ST2		Women had earned the prize			✓	
ST3		Women got Nobel peace prize		✓		
ST4		Women got Nobel peace prize		✓		
ST5		Women have won Nobel peace prize		✓		

ST6	فقد حصلت جائزة نوبل للسلام	Women have been awarded Nobel prize	She has been awarded the Noble Peace Prize	✓		
ST7		.....				✓
ST8		Women have ...won the prize		✓		
ST9		Woman has won the Nobel		✓		
ST10		Women have been gained Nobel prize			✓	
ST11		Women got the certificate of Nobel			✓	
ST12		Women have received Nobel prize		✓		
ST13		Women won Nobel Prize		✓		
ST14		Women have won Nobel prize		✓		
ST15		.....				✓
ST16		Nobel for peace is taken by women			✓	
ST17		They obtain Nobel peace		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	جزءا مهما في صنع القرار السياسي	making of political choices	She is considered an important part in political decision making	✓		
ST2		Contributes in law and law making ah ahah		✓		
ST3		as important discussion making			✓	
ST4		It the most important part to made the law			✓	
ST5		of political decision making		✓		
ST6		Important part of in making political decisions		✓		
ST7		in making the political decision		✓		

ST8		.....			✓
ST9		in making political decision	✓		
ST10		Women are very important in political decision	✓		
ST11		.....			✓
ST12		To participate in the political decision	✓		
ST13		in making political decisions	✓		
ST14		Women are great part to decision making	✓		
ST15		Women are contribute in the political field		✓	
ST16		Woman is very important in making decision	✓		
ST17		.....			✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		And putting the important rules				✓
ST2		.....				✓
ST3		In the enactment of the important laws		✓		
ST4		She share with ..the laws				✓
ST5		Participate in the enactment of the important laws		✓		
ST6	وتشريع القوانين المهمة	the woman participates to enact the laws	and legislates the important decisions	✓		
ST7		.....				✓
ST8		And passing important laws				✓
ST9		.....				✓
ST10		.....				✓
ST11		.....				✓

ST12		.....
ST13		.....
ST14		And legislate important decisions
ST15		.....
ST16		.....
ST17		.....

		✓
		✓
✓		
		✓
		✓
		✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		.....				✓
ST2		When we go to the hospital		✓		
ST3		When we go to the hospital		✓		
ST4		When we go to hospital		✓		
ST5		When we visit hospitals		✓		
ST6		When we go to the hospital		✓		
ST7		When we go to the hospital	When we visit hospitals	✓		
ST8	عند مراجعتنا للمستشفيات	When we go to the hospital		✓		
ST9		.....				✓
ST10		When we enter the hospital			✓	
ST11		.....				✓
ST12		When we go to the hospital		✓		
ST13		.....				✓
ST14		When we go to the hospital		✓		
ST15		.....				✓
ST16		.....				✓
ST17		We can see in the hospital		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1					✓
ST2		Society has conducted a lot of forms and actions				✓

ST3	ان ارتكب المجتمع اخطاء فادحة	society has committed huge mistakes against		✓			
ST4		.....				✓
ST5		.....					✓
ST6		.....					✓
ST7		Society make big mistakes	The society has committed serious mistakes	✓			
ST8		.....					✓
ST9		Society has made a lot of mistakes		✓			
ST10		A society has made a great mistake		✓			
ST11		Society committed mistakes			✓		
ST12		Society has made great mistakes		✓			
ST13		.....					✓
ST14		Society made a mistake against			✓		
ST15		.....					✓
ST16		.....					✓
ST17		.....					✓

Appendix 50

Analysis Tables of Novices' Renderings of Arabic Culture Specific Terms and Structures into English

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		She is the aunt		✓		

ST2	فهي الخالة	She is the aunt	and she is the aunt	✓		
ST3		She is the aunt		✓		
ST4		She is the aunt		✓		
ST5		She is the aunt		✓		
ST6		She is the aunt		✓		
ST7		She is the aunt		✓		
ST8		She is the aunt		✓		
ST9		.....				✓
ST10		.....				✓
ST11		She is the aunt		✓		
ST12		She is the aunt		✓		
ST13		She is the aunt		✓		
ST14		She is the aunt		✓		
ST15		She is the aunt		✓		
ST16		.....				✓
ST17		She is the aunt		✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	في طبخ الاكلات التي نحبها	In cooking the meals	Cooking our favorite food	✓		
ST2		.....				✓
ST3		In cooking our likely food		✓		
ST4		In made cooking that we love			✓	
ST5		Cooking the food		✓		
ST6		in cooking our favorite food		✓		
ST7		Cooking the dishes		✓		
ST8		In cooking food we like		✓		
ST9		In cooking...		✓		
ST10		Cooking the dishes		✓		
ST11		She cook hhh what we love food		✓		

ST12		To cook meals	✓		
ST13		Cooking types of food	✓		
ST14		Cooking our favorite meals	✓		
ST15		Made food that we love	✓		
ST16		Cooking our loved meals	✓		
ST17		In making our favorite food	✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.	
ST1	وقد استوقفني المثل	I also remember the says that	I remember a proverb which says	✓			
ST2		And the say of the wisdom that says		✓			
ST3		I remember the proverb		✓			
ST4		.....					✓
ST5		.....					✓
ST6		and come to my mind the proverb		✓			
ST7		There is an idiom in my mind		✓			
ST8		I remember the proverb		✓			
ST9		There is a saying that means		✓			
ST10		I remember the saying		✓			
ST11		a proverb stopped me					✓
ST12		.....					✓
ST13		And the saying that says		✓			
ST14		And also there is a saying		✓			
ST15		.....					✓

ST16		And I remember also the proverb
ST17		I also remember a word

✓		
✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.	
ST1	الا من يديها	But from her hand	Unless she made it herself		✓		
ST2		.....				✓
ST3		Only if it from my mom's hands			✓		
ST4		Just from her hands			✓		
ST5		Except what she cook			✓		
ST6		only from her hand made			✓		
ST7		But from her hands			✓		
ST8		Just from her hands			✓		
ST9		Unless it is cooked by my mom			✓		
ST10		By my mother's hands			✓		
ST11						✓
ST12		Unless she is the one she made it			✓		
ST13		Until she makes it with her hands			✓		
ST14		Except the soup my mom made			✓		
ST15						✓
ST16		Unless it made by her hands			✓		
ST17		Unless from her			✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1					✓

ST2	ان ما يثلج الصدر	What brings comfort and joy is	✓			
ST3		What reliefs the mind in this time			✓	
ST4		We are more comfortable	✓			
ST5		What is heart-warming is			✓
ST6		what really fair	✓			
ST7		What reliefs the chest is			✓	
ST8		.....			✓
ST9		It makes our world is better		✓		
ST10		.....			✓
ST11		There is what heal everything		✓		
ST12		It is very satisfying	✓			
ST13		.....			✓
ST14		What is heartwarming that	✓			
ST15		.....			✓
ST16		.....			✓
ST17		.....			✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.	
ST1	نرفع لها القبعة	.....	We all should appreciate her efforts			✓
ST2		.....				✓
ST3		We should raise the hat for her			✓		
ST4						✓
ST5		We must raise the hat			✓		
ST6		We must raise the hat			✓		
ST7						✓
ST8		We have all to raise her the hat			✓		

ST9		We have to appreciate women for her efforts
ST10		.....
ST11		We should trust her for her efforts
ST12		We should all hats off
ST13		.....
ST14		We need to raise out hat for their efforts
ST15		We all have to thank women
ST16		We should all respect her for her efforts
ST17		We have to greet women for its enormous efforts

✓		
		✓
	✓	
	✓	
		✓
	✓	
	✓	
✓		
✓		

Appendix 51

Analysis Tables of Novices' Renderings of Arabic Terms and Structures with Religious Content into English

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	السلام عليكم ورحمة الله	In the name of God most gracious and most merciful	May Allah's peace and blessings be upon you	✓		
ST2		Peace be upon you		✓		
ST3		Alsalam Alaikum Wa Rahmatu Allah wa Barakatuh		✓		
ST4		Hello		✓		
ST5		Peace blessing and mercy upon you		✓		
ST6		Hello		✓		
ST7		Hello		✓		
ST8		Hello		✓		
ST9		May Allah's peace and blessing be upon you		✓		
ST10		May Allah's peace and blessing be upon you		✓		
ST11		Alsalam Alaikum Wa Rahmatu Allah wa Barakatuh		✓		
ST12		May Allah's peace and blessing be upon you		✓		
ST13		Peace and mercy of Allah be upon you		✓		
ST14		Hello		✓		
ST15		Hello		✓		

ST16		Alsalam Alaikum Wa Rahmatu Allah wa Barakatuh
ST17		Peace and blessings of Allah upon you

✓		
✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.	
ST1	منذ صلاة الفجر	She wakes up to pray	Early in the morning			✓	
ST2		.....				✓
ST3		When she waking up at dawn to pray			✓		
ST4		She was wake up in the dawn		✓			
ST5						✓
ST6		when my mother waking up after the dawn prayer			✓		
ST7		From the dawn prayer			✓		
ST8		She was waking up at the dawn		✓			
ST9		How she was waking up early		✓			
ST10		She wake up early in the morning		✓			
ST11		She wake up early in the morning		✓			
ST12		She wakes since Alfajer prayer			✓		
ST13		She wakes up in the morning at dawn		✓			
ST14		She used to wake up in the dawn		✓			
ST15						✓
ST16		She wakes up early		✓			
ST17		She used to wake up in the Fajir prayer			✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	انذركم بحديث المصطفى "صلى الله عليه وسلم" الجنة تحت اقدام الامهات	I would like to remind you of Mohammed's hadith which is the heaven lies under the mothers' feet	I remind you of the hadith Almustafa "PBUH" "paradise is under the mothers' feet"	✓		
ST2		We remember the hadith of the prophet Mohammed "PBUH" when he say the heaven is under the feet of mothers		✓		
ST3		I would like to remind you of Mohammed's hadith which is the heaven is under the mothers' feet		✓		
ST4		I remind you of Mohammed messenger said the heaven is under mother foot		✓		
ST5		I remind you of the hadith of prof Mohammed heaven at the feet of mother		✓		
ST6		the speech of the prophet Mohammed when he said that the heaven at the feet of mothers		✓		
ST7		Mohammed said the heaven under mothers' feet		✓		
ST8		I would like to remind you of Mohammed's hadith which is the heaven lies under the mothers' feet		✓		
ST9		I would like to remind of the peace of the prophet Mohammed PBUH when she said paradise lies under the feet of our mother		✓		
ST10		I want to remind you of the prophet's saying when he say that the heaven or the paradise under women's feet		✓		

ST11		Prophet Mohammed said if you want to ...			✓
ST12		I remind you here by Muhammed PBUH saying heavens are under mothers' feet	✓		
ST13		I should remind you of a saying of prophet Mohammed when he said heaven is under the feet of mothers	✓		
ST14		I would like to remind you of the AlMustafa hadith when he said that paradise is under women's feet	✓		
ST15		I remember the hadith of the prophet Mohammed ...			✓
ST16		I remind you of the prophet Mohammed hadith..			✓
ST17		.....			✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	من الجاري الى الانسانية	She is the precious gift from Lord to humanity	From the Lord to the humanity	✓		
ST2		Woman is the greatest gift from God		✓		
ST3		Woman is the best gift from God		✓		
ST4		She is the most beautiful gift from God to humanity		✓		
ST5		She is the most beautiful gift from our God to humanity		✓		
ST6		she is the best gift from God to humanity		✓		
ST7		She is the most beautiful gift from God to humanity		✓		
ST8		She is the most beautiful present from God to humanity		✓		

ST9		Women are the greatest to humanity		✓	
ST10		Women are hhhhthe greatest gift to society	✓		
ST11		The most beautiful gift from the Bari		✓	
ST12		She is the most beautiful gift from God to humanity	✓		
ST13		She is the most beautiful gift from God to humanity	✓		
ST14		She is the great gift from God to humanity	✓		
ST15		.....			✓
ST16		.....			✓
ST17		.....			✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1		.....				✓
ST2		God told us the human to take care of his parents		✓		
ST3		ووصينا الانسان بالديه ...				✓
ST4		I also remember you when God says in the Quran...				✓
ST5		ووصينا الانسان بالديه ...	And We have enjoined upon			✓
ST6	قول الباري عز وجل "ووصينا الانسان بالديه	I should remember you the speech of God in Quran we exhort human his parents because she bring him when she is weak	man concerning his parents. His mother beareth him in weakness			✓
ST7	حملته امه وهنا على وهن	I remind you Aya from Quran we said ...	upon weakness, (Pickthal translation			✓
ST8		I want to remind you of a verse which God says we recommended the human for her parents ...his mother...in her ahah in here	translation			✓
ST9		.....				✓

ST10		I would like to remind you of this verse... which is referred to how to treat your mother		✓	
ST11		.....			✓
ST12		What Allah the almighty said about woman...			✓
ST13		.....			✓
ST14		I would like to remind you of Allah's verse when He said ...			✓
ST15		We have to remember the verse from the Holly Quran ..			✓
ST16		I remind you of the Aya ... ووصينا الانسان بالديه Meaning we should be careful to woman		✓	
ST17		.....			✓

S.	Source Text	Target Text	Back Translation	A.	M.	I.	
ST1	علينا البر بها	.....	We have to do good to her			✓
ST2		we must .....do the best for her		✓			
ST3		We should be kind to her, greet her		✓			
ST4		We have to be good well with the woman		✓			
ST5		We have to honor and greet the woman		✓			
ST6		we should treat her well		✓			
ST7		We remember to take care of her		✓			
ST8						✓
ST9		We have to respect and appreciate woman		✓			
ST10						✓

ST11		We should protect her we should protect her
ST12		It is really important to respect women
ST13		.....
ST14		We need to ...have respects for our mother
ST15		We have to take care of mother
ST16		We should be careful to women we thank them
ST17		We have to respect women and send her greetings

	✓	
✓		
		✓
	✓	
✓		
✓		
✓		

S.	Source Text	Target Text	Back Translation	A.	M.	I.
ST1	رحمها الله	God bless her	May she rest in peace			✓
ST2		.....				✓
ST3		May Allah rest her soul		✓		
ST4		.....				✓
ST5		.....				✓
ST6		.....				✓
ST7		.....				✓
ST8		.....				✓
ST9		May she rest in peace		✓		
ST10		.....				✓
ST11		.....				✓
ST12		.....				✓
ST13		.....				✓
ST14		.....				✓
ST15		.....				✓
ST16		.....				✓
ST17		.....				✓

