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A THINK-ALoud PROTOCOLS INVESTIGATION OF LEXICO-
SEMANTIC PROBLEMS AND PROBLEM-SOLVING STRATEGIES
AMONG TRAINEE ENGLISH-ARABIC TRANSLATORS

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ABSTRACT

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A THINK-ALLOUD PROTOCOLS INVESTIGATION OF LEXICO-SEMANTIC PROBLEMS AND PROBLEM-SOLVING STRATEGIES AMONG TRAINEE ENGLISH-ARABIC TRANSLATORS

PhD thesis, University of Durham, C.M.E.I.S, (2000)

The purpose of this study is to identify lexico-semantic problems and problem-solving strategies of trainee English-Arabic translators. The corpus of data has been collected via the use of *Think-Aloud Protocols* (TAPs) technique, i.e. by asking the subjects of the study to verbalise their thoughts while performing a translation task from English into Arabic. Subjects' concurrent verbal reports were tape-recorded and then transcribed into written protocols for analysis.

This thesis consists of eight chapters. The first chapter is *the introduction* which discusses the aim and scope of the study. Chapter two discusses *the methodology* used in the present experiment, i.e. *TAPs*, and provides a survey of *empirical studies of translation*. It also examines *the current pedagogical gap in translation training programmes* and provides a detailed survey of *the most innovative trends in translation pedagogy*. Chapter 3 provides background information about the *experiment design*, e.g. the criterion for the selection of participants and translation task texts. Chapter 4 and 5, the focus of the study, provide a detailed qualitative and quantitative analysis of subjects' *lexico-semantic problems* and *problem-solving strategies*. The emphasis in chapter 5 is laid on *the strategy of dictionary consultation*, due to its high degree of frequency and success. The identification of subjects' lexico-semantic problems and problem-solving strategies is successfully achieved via the employment of *a problem indicator model*. Chapter 6 evaluates subjects' *translation end-product and global behaviour*. Chapter 7 is *the didactic implication of the study*. It discusses the main shortcomings of subjects' translation training as reflected in their translation task performance, and provides some recommendations. Finally, chapter 8 summarizes the main findings of the study, and suggests further areas of research.



DECLARATION

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CHAPTER ONE

1. Introduction

1.1. Background

In the majority of university-level translation programmes, trainee translators are often seen as learners of a foreign language rather than future-professional translators. This traditional attitude towards learners of translation seems to be closely related to (a) the lack of clear objectives, (b) unsuitable curricular material, and (c) improper teaching methods (c.f. Chapter 7).

Translation training programmes usually operate under a major handicap, namely the unawareness of learners' actual strengths and weaknesses when they perform a translation task. Teachers usually rely on their personal intuition as well as their speculative evaluation procedures (c.f. section 2.2 & 7.2) to measure learners' translation competence, consequently hypothesising trainees' translational problems and suggesting ways of dealing with them. Kussmaul (1995) describes translation instructors' traditional way of diagnosing and dealing with learners' translational difficulties as inadequate. This is because:

Those of us who are honest will occasionally have asked ourselves: do we really put enough emphasis on the right areas? Or could it be that we stress problems which are not problems for our students after all, and that we actually disregard areas where they encounter difficulties? And has it ever crossed our minds that our students might perhaps have found ways of dealing with problems which we may never have thought of and which, if they are successful, may serve as models for our teaching. (Kussmaul 1995:5)

To investigate what actually occurs during the production of a translation, translation educators need to employ a performance-analytical methodology which allows access to learners' minds. This can be done by a process-oriented investigation (c.f. section 2.1.2) of trainee translators' task performance via the introspective technique, Think-Aloud-Protocols (TAPs, hereafter).

Thus, in response to the inadequacy of traditional translation training (i.e. based on idealisations rather than empirical investigations of translators' actual performance), a line of process-oriented research (c.f. section 2.1.3) began to evolve recently with the objective of empirically identifying translators' actual mental processing when they carry out a translation task. The present study can be situated within this recent research paradigm.

1.2. Aim of the study

The main aim of the present study is to investigate trainee translators' lexico-semantic problems, problem-solving strategies and global behaviour, and to relate the results of the analysis to their end product. The choice of these categories as the main units of investigation is justified on the grounds that they constitute the major part of trainee translators' translating processing. The lack of information on the actual characteristics of learners' performance in traditional university-level translating training programmes has been the main incentive to attempt this investigation. An improvement of our understanding of learners' translating processing will undoubtedly contribute to the improvement of translation pedagogy; i.e. successful processes will be reinforced in the translation training, whereas inefficient processes will be utilised to establish where remedial training is needed.

In addition to serving the aim of the present study, the use of TAPs in the present experiment is also directed towards encouraging translation educators to use this method in their assessment of learners' translating performance.

1.3. Structure of the study

This thesis comprises eight chapters. Chapter 1 is a general introduction which attempts to localise the problem (i.e. lack of knowledge about trainee translators' actual translation processing) and to state briefly the aim of the study.

Chapter 2 focuses on the process-oriented investigation of translation. After the introductory remarks (2.1.1), the methodology used in this study is introduced. This is followed by a detailed survey of the most pioneering empirical studies of the translation process. Chapter 2 also examines the current status of translation pedagogy. It highlights the pedagogical gap caused by the traditional view of translation training and provides a detailed survey of the most innovative initiatives in translation pedagogy.

Chapter 3 discusses the setting of the present experiment. This includes the criterion for the selection of the subjects of the study and the experiment texts, as well as the transcription techniques and categories of analysis. More space is devoted to the description of how and where the experiment takes place.

In chapter 4, the most important feature of subjects' translation processing is discussed: lexico-semantic problems. This chapter starts with a definition of the notion of *translation problem* and the *problem indicator model* which is used in the present experiment to identify subjects' translational difficulties. Subjects' translational problems are analysed both qualitatively (i.e. the type of problem and the degree of difficulty) and quantitatively. Other relevant issues discussed briefly

include stages of problem identification and subjects' attitude towards translational difficulties.

Chapter 5 examines the problem-solving strategies which the subjects use to bring about solutions to translational problems. Strategies are identified via the same *problem indicator* mainly because strategies are employed only when a translational difficulty is identified. The analysis of strategies is both qualitative (type and purpose of strategy) and quantitative (frequency and degree of success). The emphasis in this chapter is laid on the strategy of dictionary consultation mainly because of its high degree of frequency and successfulness (discussion of this strategy includes primary source of reference, purposes of dictionary use, misuse of dictionaries, and attitudes towards dictionaries).

In chapter 6 a dual evaluation approach (global evaluation and error analysis technique) is used to assess subjects' translational processes (global behaviour) and products. The aim of this chapter is to evaluate subjects' translational performance so as to identify their efficient and deviant processes and ultimately relate these translational activities to their previous translation training. This chapter concludes with general observations which are drawn from subjects' task performance.

Chapter 7 discusses the didactic implications of the present study. It focuses on the main shortcomings in subjects' translation training together with some recommendations to deal with these didactic flaws. The aim of this chapter is to propose a starting point towards developing a systematic approach to translation instruction.

Chapter 8 comprises a short summary of the present study and some recommendations for further research.

CHAPTER TWO

2. Literature review

2.1. Empirical studies of Translation

2.1.1. Introduction

Until quite recently, translation studies have been product-oriented. These studies were primarily concerned with the study of the final product of translation in an attempt to achieve what was commonly known as optimal equivalence between the ST and the TT (e.g. Nida's (1964) "formal and dynamic equivalence"). This traditional view of the study of translation seems to have ignored the processes (i.e. strategies) which led to the production of the final product. Steiner for example, maintains that:

...In the overwhelming majority of cases, the material for study is a finished product. We have in front of us an original text and one or more putative translation. Our analysis and judgement work from outside, they come after fact. We know next to nothing of the generic process which has gone into the translator's practice, of the prescriptive or purely empirical principles, devices, routines which have controlled his choice of this equivalence rather than that, of one stylistic level in preference to another, of word 'x' before 'y'.

(Steiner 1975: 237)

Not long after Steiner's statement, a new trend in translation studies started to emerge. This new trend involves empirical studies of the translation process; and it came out as an inevitable reaction to the inadequacy of traditional translation theories to

account for the actual mental processes of translation. In other words, the primary concern of such new studies was investigating the translation process, rather than a speculative analysis of the final product, through the implementation of the introspective technique *Think-Aloud Protocols*, frequently referred to by the acronym *TAPs*. Among the earliest attempts to empirically study the actual process of translation is the pioneering work of Krings (1986). He argued, along with empirical translation researchers (cf. Lorsch 1986, 1991), that previous translation models have failed to account for the psychological reality of what goes on in the mind of the translator during the process of translating.

Thus, traditional translation theories have been criticised by empirical translation researchers for their speculative nature which is based on hypothetical situations without providing empirical data to validate their appropriateness for translation training purposes.

Along these lines, Jaaskelainen (1990:43) levels some criticism against traditional models of the translation process, thus echoing previous demands (e.g. Krings. 1986, Lorsch 1991, to name but two) for adopting a process-oriented methodology for the study of translation process. She claims that the predominately hypothetical nature of traditional models of translation has resulted in both theoretical and pedagogical deficiencies within translation studies. Jaaskelainen goes on to say that translation theory “has been unable to cater for the growing needs for translator training” because of the gap between the needs of translation training and what the theory really offers for the trainee.

Furthermore, traditional theories of translation have been rejected by the supporters of process-oriented translation on the grounds that these theories have been tailored to account for the translations of professional translators only, hence giving no attention

to partly competent translators, i.e. translation trainees. To put it differently, the argument in favour of process-oriented translation can be substantiated on the grounds that the actual agent in translation has been completely ignored by traditional models of translation, as he is expected to be a recipient of the rules provided by translation theorists.

Lorscher (1991:2) also echoes the above criticism of conventional models of translation on the grounds that they do not account for the reality of the translation processes. He contends that the speculative nature of traditional theories in approaching their objects of investigations makes them “of very limited use for practical translator.”

Therefore, Lorscher, among other TAP researchers, uses the TAPs technique to investigate the process of translation in his most comprehensive work (1991). This yielded two essential results: first, it became apparent that the quality of the hypotheses about cognitive processes can be improved when introspective data, especially those manifested by the translator’s thinking aloud during the production of the TT, are taken into account. Second, it became evident that TAPs can yield much reliable data about procedures of problem-solving, and that it is sensible to limit the empirical investigation of the translation process to those aspects which are connected with the solutions to translational problems (ibid.: 67).

The realisation of the drawbacks of normative translation theories, as mentioned above, has led to an increase in empirical process-oriented translation studies (cf. Krings1986; Jaaskelainen1987 and 1990; Tirkkonen-Conduit1987; Kirally1990; and Kussmaul 1995, to name but a few). These works, although they emerged independently of each other, have all employed introspection techniques with the primary aim of investigating the translation processes, as they occur, by means of

verbal protocols data generated by the TAPs method. Ideally, this would allow researchers on the process of translation to get access to the mind of the translator (i.e. the black box), so as to observe the global behaviour as well as the strategies and techniques which the translator uses to arrive at his final translation.

2.1.2. TAPs

The term *think-aloud* is used in empirical translation studies to mean a special method for gathering data on mental processes of translation. That is, the translator is asked to verbalise his thoughts and whatever comes to his mind during the process of translating. This method was first applied to psychology to study human behaviour. It gained great popularity amongst psychiatrists because of the information provided by such techniques (cf. Borsch 1986). Because of its success in studying human behaviour in general, psycholinguists and translation theorists have started to use TAPs as a method of collecting data on the process of translation and second language acquisition. It was found that translation is particularly well suited for protocol study because it is a relatively conscious process, thus open for verbalisation.

Kusssmaul for example (1995:7) argues that TAPs as a method of empirical research into the translation process have proved to be a bold step forward in the right direction and that the results gained were often unexpected and sometimes surprising. Another source of support for the use of TAPs in translation studies is that of Wilss (1996:193) who points out that the use of TAPs in recent empirical studies has successfully added an applied dimension to translation studies, thus bridging the gap between the theoretical and applied sides of translation.

The methodological framework of TAPs is based on the works of Ericsson and Simon (1980 and 1984) in which they introduce their information-processing model. They

assume what can and can't be verbalised under specific experimental conditions. They distinguish two kinds of verbal reports: *concurrent* and *retrospective* reports. In concurrent reports the cognitive processes are verbalised directly in that the subjects give a moment-by-moment description of what goes on in their minds during the process of translating, while retrospective verbalisation refers to a finished process (i.e. reports are collected some time after the subjects have carried out the task) with the possibility of error or distortion of information during the process of retrieving what has happened during the task performance.

Thus, concurrent verbalisation seems to be more appropriate than the retrospective technique in the elicitation of data for empirical studies of translation because in retrospective reports, subjects are exposed to a memory load, which means that the information they externalise is potentially less complete.

The assumed reliability of TAPs in all previous empirical studies is based on Ericsson and Simon's model (1984) which predicts that information is stored in various memories and that only information recently obtained by the subject is kept in short-term memory which is directly accessible for producing verbal data.

Although TAPs have been referred to by empirical investigators of translation as the most sophisticated method of observing the process of translating, one should be aware of the conditions under which the data are externalised as well as the inherent limitation of TAPs, as is the case with any technique for collecting data. Ericsson and Simon (1980) maintain that:

...Verbal reports, elicited with care and interpreted with full understanding of the circumstances under which they are obtained, are a valuable and thoroughly reliable source of information about cognitive processes. (Ericsson and Simon 1980:247)

Understanding the limitation of TAPs is the minimum requirement for justified conclusions on the processes of translation. Because of that, two questions regarding the appropriateness of TAPs have to be answered. These two questions were first put forward by Borsch (1986:200); they are 1) Which mental processes are accessible to verbal reports and 2) Does the instruction to verbalise change the process of thinking in its very nature?

These two questions will be answered as follows:

1-Which mental processes are accessible to verbal reports (i.e. TAPs)?

In answer to the above question, one can say that previous process-oriented researchers on translation (e.g. Krings 1986, Jaaskelainen 1987, Kiraly 1990, Lorsch 1991, and Kussmaul 1995), as well as the present experimenter have unanimously come to the conclusion that only controlled (i.e. conscious) processes are accessible for TAPs. These conscious processes are in the subject's short-term memory, that is, in his focus of attention. Automated processes of translation on the other hand, are inaccessible to verbalisation, as they pass unnoticed by the translator. That is, automation in translation takes place on an unconscious level. Moreover, it was observed that automated processes are related to routine processing (i.e. problem-free processing) which requires no specific strategies to achieve equivalence. Tirkkonen-Condit (1992:434), for example, contends that automated processes in translation produce no traces of decision-making, as they don't enter in the short-term memory of the translator who is only able to register conscious elements of the task performance.

This, of course, entails that TAPs are particularly suitable for the present study because its aim is to identify problems and strategies of translation which are controlled processes (cf. chapter 4 and 5), thus accessible for verbalisation. This claim can also be substantiated by the fact that using TAPs in the present experiment has enabled me to obtain a huge amount of information on the subjects' strategic processing of the translation task which would have been unobtainable if any other methodology was employed.

The above justification for the use of TAPs in the present study can be corroborated by the findings of the study of a leading figure in empirically based investigation of the translation process, namely Krings who rightly concludes that:

In the thinking-aloud protocols two basic features of the translation process were evident: the presence of translation problems and a variety of strategies for solving these problems. (Krings (1986:266)

Another interesting finding of previous empirical studies of translation (e.g. Tirkkonen-Condit 1989:84), as regards the notion of *automation*, is that translation process becomes more automated as the translator's professionalism increases. This is because professional translators are expected to be highly proficient in both the SL and the TL, and consequently their strategies are implemented unconsciously so they might not surface in the protocols. Non-professional translators (i.e. translation trainees), by contrast, are expected to have more translation problems (because of their relatively inadequate proficiency in the foreign language) which would require conscious problem-solving strategies that would definitely appear in the protocols.

Thus, the fact that professional translators' processing is highly automated (i.e. very little data is obtained via TAPs), has led to the conviction that TAPs are particularly suitable for empirically investigating the translation process of non-professional

translators (e.g. the subjects in the present study) because of the high degree of consciousness in their task performance.

Consequently, the fact that TAPs are particularly suitable for investigating the translation process of non-professional translators (i.e. non-automatic decision-making processes), which seems to get approval from existing literature on the translation process, is another reasonable justification for the use of the TAP technique in the present study.

2-Does the instruction to verbalise change the process of thinking in its very nature?

In an attempt to answer the above question, Borsch (1986:202) first draws a distinction between introspective techniques (i.e. TAPs) and retrospective techniques. Borsch maintains that while thinking-aloud protocols yield mainly concurrent data that are stored in short-term memory, retrospective reports, on the other hand, are obtained some time after the subject has carried out the task. Concurrent reports are more reliable than retrospective reports as the latter may allow for a distortion of the data because of the extra load on the memory to retrieve previously obtained information. Borsch then summarizes Ericsson and Simon's convincing argument (1980:226-235) on the effect of TAPs on the process of translating, as follows:

- a) Direct verbalisation of already verbally encoded information does not change the course, structure or speed of the cognitive processes.
- b) If the "main task is not verbal (...), the performance may be slowed down, and the verbalisation may be incomplete but the course and the structure of the task-performance process will remain largely unchanged."(p.227)

- c) If the subjects are asked to report only specific kinds of information (instead of thinking aloud whatever comes to the mind of the translator), more substantial effect on task-performance processes is more likely. The influence will be all the more prominent if the subjects have to produce information not normally available during the task performance.
- d) Only cognitively controlled processes can be reported, whereas automatic processes are not accessible to verbalisation. Consequently, increased experience with a task may provide different reports, “so that what is available to the novice may be unavailable to the expert.”(p.235)

Based on the above assumption (i.e. the minimal effect of verbalisation on the process of thinking), I have carried out a pilot experiment with the aim of empirically investigating the effect of TAPs on the process of translating (i.e. thinking). Two subjects were asked to translate a number of English texts into Arabic in two separate sessions in a language laboratory, of one hour and a half each. In the first session, the two subjects were asked to use the TAPs technique during the process of translating, whereas in the second session they were asked to translate the texts without thinking aloud their thoughts during their task performance. After a painstaking observation of the subjects' protocols as well as the analysis of the quality and speed of the translation, I came to the following conclusions:

- a) There is no observable effect of TAPs on the speed of the translation (time management is roughly the same in both sessions for the two subjects) and the quality of the TT.
- b) The two subjects have been fluent in their verbalisation, which indicates that they do not find thinking aloud a hindrance for completing the task.

Some writers on the translation process have gone so far in their support for the employment of introspective techniques in empirical translation studies to claim that the use of TAPs has improved the performance of the subjects during the translation process. Deffner (1984; cited in Lorsch 1991:54), for example, claims that his experiment on the translation process, in which he recruited two groups of translators (group one thinking aloud and group two thinking silently), yielded the following two interesting results:

- a) Subjects who were thinking aloud during the translation process were more systematic problem-solvers.
- b) Subjects who were using TAPs during the task of performance were the more successful problem solvers.

Finally, in order to elicit the largest possible amount of data for the present experiment via the use of TAPs technique, the following considerations were taken into account:

- a) The subjects can only report their controlled processes (i.e. conscious processes) which are in their focus of attention. This observable information is assumed to be in the short-term-memory, thus accessible for externalisation by the subjects. The subjects are not expected to verbalise automated processes as they pass unobserved during the task performance. The analysis of the protocols in the present study has revealed that there was hardly any thinking-aloud during subjects' automated processes (i.e. problem-free processes).
- b) The subjects were asked to think aloud anything that came to their minds during the translation process. They were not asked to report specific information, as this would distract the subjects' flow of thinking in their effort to search for the wanted information.

- c) Retrospective reports were avoided on the grounds that they might cause a memory load for the subjects in their efforts to retrieve finished processes (i.e. those not in the short-term memory). Instead, concurrent report procedure was used to obtain what was in the subjects' focus of attention.
- d) TAPs are better suited for investigating translation processes of non-professional translators (e.g. the subjects in the present study) because of the intensity of their conscious processing in dealing with translation problems, which are less frequent in the translations of the more competent professional translators. That is, professional translators are expected to engage in routine task performance which relies heavily on automated processes, as opposed to non-professional translators who are more likely to engage in non-routine task performance which demands more conscious processing.
- e) Translation problems and strategies have been used in the present study as the main two categories in the analysis of data. The analysis of the data validated the claim that translation problems and strategies are conscious processes, thus accessible for verbalisation. Whenever a translation problem is identified or a problem-solving strategy is employed, there must be a thinking-aloud on the part of the subject.

Consequently, based on the above considerations, it becomes clear that TAPs technique is suitable for investigating the translation process in general and particularly for investigating translation problems and strategies, which is the epistemological aim of the present study.

2.1.3. Overview of TAP studies

In the following section, an overview of the most important pioneering studies of TAP researchers which are relevant to the present study will be presented. It is hoped that the introduction to these works will facilitate a better understanding of the new discipline of empirical translation which is still in its infancy. The relevance of these studies to the present experiment lies in the fact that all these works employed TAPs procedure to elicit data about the process of translation which traditional studies of translation failed to identify, particularly problem-solving strategies. In fact, the thorough reading of these studies has inspired the present researcher to use TAPs to investigate empirically problems and strategies of non-professional translators. Additionally, the following works have, to a great extent, influenced the design of the present study

2.1.3.1. Krings

In 1986, Hans P. Krings conducted the most pioneering TAP study published to date. This has become a starting point for the employment of TAPs methodology in empirical translation studies. That is, this study provides a wealth of information about the methodological background necessary for carrying out any similar research on the process of translation.

Krings' aim in his study was to provide a psycholinguistic model of the translation process so as to improve what he calls *the translation competence* (TC) of trainee translators (Krings 1986:263). Thus, Krings created a tentative model of the translation process of non-professional translators, which takes the form of an identifiable sequence of problem-solving strategies employed systematically by the subjects of the experiment to deal with problematic lexical units.

The subjects in Krings' study were eight native speakers of German, all studying to become secondary school teachers of French. Although nearing graduation, the subjects had no experience or proper translation training, as their encounter with translation was confined to a few translating classes for second language acquisition purposes. Because of the apparent inadequate translation competence of the subjects, they were identified as novice or non-professional translators.

As regards the direction of the translation task, four of the subjects were asked to translate into the native language (German) and the other four were instructed to translate into the foreign language (French). Both directions of translation (from and into the native language) "were deliberately included to shed light on the processes and strategies involved from different angles"(Krings 1986:264).

The texts chosen for the experiment were relatively difficult, with a great variety of lexical and stylistic translational problems. The reason for choosing texts which posed so many potential translation problems was to elicit more processing data. Non-problematic translation units, on the other hand, were translated automatically thus leaving no traces of translation processing that can be elicited via TAPs technique.

The subjects were instructed to bring with them the dictionaries they were accustomed to use at home so as to investigate their use of the dictionary during the translation process. Krings (reported in Kiraly 1995:44) stresses the importance of using dictionaries in any empirical study of translation. Therefore, he criticises some previous TAP studies (e.g. Lorsch 1986) which do not permit the subjects to use dictionaries. His criticism is based on the grounds that the use of reference materials constitutes the greatest part of conscious translation processing.

The main unit of analysis in Krings study is the notion of the translation problem. He, therefore, developed an indicator model (Krings 1986:267) which can be used to identify translation problems and strategies. (For a detailed description of this model, see section 4.3.)

Krings claims that the application of his indicator model permitted a reliable identification of translation problems. Following this claim, a modified version of Krings' problem indicator has been used in similar studies, such as Tirkkonen-Condit (1987), Jaaskelainen (1987), Lorsch (1991), Al-Besbasi (1991) and the present experiment.

After the identification of the translation problems in the protocol data, Krings further categorizes these problems into a) comprehension problems, b) combined comprehension and production problems, and c) production problems.

Krings (reported in Gerloff 1988:21) classified the translation process into three stages:

- 1) The preparatory run-through, before the TT was produced;
- 2) The main run-through, during which the initial version of the TT was produced;
and
- 3) The editorial run-through stage, which is the work done after the first version of the TT was produced.

The main findings of Krings' study are summed up as follows:

- a) The majority of translation problems are comprehension problems caused by unfamiliar lexical items, particularly for those subjects translating into the native language.
- b) The subjects' primary source of reference was the bilingual dictionary, especially when dealing with a comprehension problem (e.g. unfamiliar lexical item). Thus,

most of the comprehension problems were solved by merely resorting to the bilingual dictionary. The monolingual dictionary, by contrast, was the less favourite tool to the subjects as it proved unhelpful in solving comprehension problems; thus they displayed little interest in it.

- c) The subjects have shown non-professional behaviour in paying no attention to the translation assignment. This can be explained by the fact that the subjects were not given a specific assignment by the investigator (i.e. translating for a specific audience).
- d) The majority of subjects have shown that they were improper dictionary users. This was manifested by their tendency to look for derived words as independent entries in the dictionary. They have also shown some odd decision-making strategies, which Krings call *translation principles*, such as: “If all the competing potential equivalents turn out to be equally appropriate or inappropriate, take the most literal one!” or alternatively: “Take the shortest one!”, and: “If one of the equivalents is to be found in the bilingual dictionary and the other one is not, take the one from the dictionary!” or: “If all equivalents concerned are in the dictionary, take the one that precedes the others!”(Krings 1986:273).

The above irrational translation principles are presumably the result of the subjects' view of the translation assignment; that is translating for L2 acquisition purposes with comprehension goal orientation and without considering the contextual appropriateness of the TT for the intended audience. That is, these principles are undoubtedly a typical example of non-professional behaviour, as “it is very doubtful whether such principles could exist in a professional translators' store of decision-making strategies” (Jaaskelainen 1987:25).

2.1.3.2. Jaaskelainen

Riitta Jaaskelainen, at Savonlinna School for Translation Studies in Finland, has conducted a series of interesting experiments on the process of translation which started in 1987 with her pro gradu thesis 'What Happens in a Translation Process' (see also 1989a, 1989b, and 1989c, which are based on the above study). The purpose of the study was to gain more knowledge about the translation process by using TAPs to study the behaviour of the translator during the process of translating. Jaaskelainen focused in her experimental study of the translation process on the differences between professional and non-professional translators as regards the use of reference materials and their attitudes towards the translation assignment. She recruited four students of translation in the experiment (two first-year students representing non-professional translators and two fifth-year students representing professional translators). The fifth-year students were considered professionals on the basis of their experience, as they attended several translation courses, as well as courses on the theory of translation. The first-year subjects, on the other hand, were referred to as non-professionals because they had no previous experience. Prior to the experiment, she hypothesised, following Krings (1986) and Gerloff (1986), that first-year students (i.e. non-professional translators) would ignore the assignment and would use the dictionary inefficiently. The main findings of the study are as follows:

- a) Surprisingly, first-year subjects showed some professional behaviour as regards translation assignment which is untypical of non-professional translators (e.g. the non-professional subjects in Krings' (1986)). That is, they proved much more professional than was originally predicted, as they paid a relatively great deal of attention to the quality of the TT. In Krings (1986), the non-professional subjects, by contrast, ignored the TT audience completely, which can be explained by the

fact that they were not given a specific assignment description by the experimenter;

- b) The fifth-year subjects were more efficient in their dictionary consultations, as they spent less time in their search for variants in the monolingual dictionary and never used the bilingual dictionary to solve comprehension problems, a typical behaviour of the first-year subjects. Additionally, professional translators “displayed a healthy scepticism towards dictionaries, particularly the bilingual English-Finish dictionary, which is an additional indicator of their experience with various types of reference material” (Jaaskelainen 1989a:197);
- c) Professional subjects showed more awareness of potential translation problems; and
- d) Students of translation were more proficient translators than ordinary language students, e.g. the subjects in Krings (1986) even the novice ones. For example, unlike the subjects in Krings (1986), the first year subjects in Jaaskelainen’s experiment (1987) did not take for granted irrational principles to deal with problems of comprehension, e.g. choose the first variant offered by the dictionary, a typical procedure of the subjects in Krings (1986) when they encountered a translation problem, particularly the meaning of unknown words.

Jaaskelainen (1991, jointly with Tirkkonen-Condit) compares professional and non-professional automated processes of translation in the light of TAPs data produced by seven subjects, three of whom are professional and four non-professional translators. The study investigates the dimensions of the translation task which are processed automatically by professionals and processed consciously by non-professional translators. The findings of the study support the hypothesis that automation increases with professionalism. While most of the decision-making processes of the professional

subjects are followed up automatically, a great number of the processes of the non-professional translators are virtually conscious and thus verbalisable.

In 1990, Jaaskelainen carried out another major TAP experiment, a licentiate thesis entitled 'Features of Successful Translation Processes', at the University of Joensuu, Finland. The purpose of the study was to identify some of the features of the translation processes which are associated with successful task performance by investigating the subjects' focus of attention (i.e. conscious processing) during the process of translating. In other words, Jaaskelainen used the notion of *attention unit* as the unit of analysis to identify problematic (i.e. unsuccessful) and non-problematic (i.e. successful) processes of translation. She borrowed the notion of *attention unit* from cognitive psychology to refer to "those instances in the translation process in which the translator's unmarked processing is interrupted by shifting the focus of attention onto particular task-relevant aspects"(1990:170).

Twelve subjects took part in the experiment; the subjects include four students of translation, four professional translators and four laymen with a good knowledge of the foreign language (i.e. English), but no experience in translation. The main findings of the study are summed up as follows: "the results indicate, among other things, that successful translators, irrespective of their translational experience, paid a fair amount of attention to the factual contents of the source text as well as to the needs of the potential readers of their translations. Weaker translators, on the other hand, seemed to approach the task at a purely linguistic level" (Jaaskelainen and Tirkkonen-Condit 1991:93). Likewise, the analysis of the data revealed that successful translation requires a high sensitivity to potential problems encountered during the process of translating.

In 1993, Riitta Jaaskelainen conducted another interesting piece of TAP research to study translation strategies. Her interest in translation strategies grew out of her earlier work (1990) where the main part of analysis was the translator's attention unit. Jaaskelainen introduced her own approach to study translation strategies by testing and refining the hypothesis of previous studies, e.g. Faerch and Kasper (1980) and Lorsch (1991). Jaaskelainen rejects the definition which suggests that translation strategy should include the elements of goal-orientedness, problem-orientedness, and potential consciousness as definitional criteria (e.g. Lorsch 1991:76). Her rejection of such a definition is based on the grounds that:

... It is clearly designed to describe problem-solving strategies, not unproblematic processing of the task which Lorsch (e.g., 1991:119) describes as non-strategic behaviour. Yet it seems that strategic behaviour also takes place when no problems in the traditional sense exists, for example, when the translator makes unproblematic decisions. (Jaaskelainen 1993:106)

Thus, Jaaskelainen takes a global view of the notion of translation strategy which she outlines as "a set of loosely formulated rules or principles which a translator uses to reach the goals determined by the translating situation in the most effective way"(ibid.:116). In other words, Jaaskelainen's broad definition of translation strategy suggests that strategic behaviour should include problem-solving activities as well as unproblematic decision making.

Jaaskelainen carried out another experiment (1995) to study "The Human Translator" in relation to translators' *optimal competence* (i.e. professionalism) which normative translation theories seek to achieve without accounting for a psychological explanation of the translator's behaviour during the process of translation which may affect the quality of the final translation. This gap, Jaaskelainen maintains, can be

filled if we investigate translation processes, as they occur, by means of verbal reports produced by methods such as TAPs.

Thus, Jaaskelainen's purpose in the study is to investigate what constitutes professional behaviour in translation, and whether or not professional behaviour equals successful behaviour, i.e. optimal translation competence.

The data of the study consists of verbal reports produced by eight Finnish students who were asked to translate an English text into Finnish.

Jaaskelainen's main finding is that even the professional translator (i.e. the optimal translator) may unexpectedly produce a poor translation which can be explained by factors such as personal experience. She adds (ibid.:141) that the development of a translator's professionalism (i.e. translation competence) does not end where a sufficient level of translation is achieved. Instead, a translator's competence (i.e. professionalism) is constantly modified and improved.

2.1.3.3. Al-Besbasi

Ibrahim Al-Besbasi, at the University of Exeter, used TAPs technique to conduct one of the most comprehensive experiments in empirical translation research. The aim of his study was to investigate some aspects of the translation process which he divides into two groups:

- a) Features of the translation process which are related to the processing and segmentation of the source text; the unit of translation; problems of translation; and problem-solving strategies.
- b) Features related to the use of dictionaries in translation (Al-Besbasi 1991:5).

Al-Besbasi (1991) points out that the lack of information on the process of translation in traditional translation literature was the driving motive behind his investigation.

He believes that examining the process of translation will improve our understanding of translation and accordingly enhance the training of translators.

The subjects in Al-Besbasi's study were eleven semi-professional translators (six native speakers of Arabic and five native speakers of English), with a high level of proficiency in both Arabic and English. The informants were divided into two groups: Group A, made up of six Arabic native speakers who would be translating an English text into their mother language (Arabic); Group B, consisted of five native English speakers who would be translating the same English text into Arabic. The purpose of choosing these two groups was to examine the differences in translating from and into the mother tongue, with special emphasis on problem-solving strategies (particularly the use of dictionary) and the unit of translating.

The ST that was chosen for the experiment was an English text which included some problematic lexical items. The reason for choosing a problematic text was to stimulate the subjects' translational skills and most importantly to encourage them to think-aloud their conscious problem-solving strategies. If the subjects had been given an easy text, on the other hand, the task would "have been carried out automatically, producing very little verbalisation and consequently little data" (Al-Besbasi 1991:44).

The subjects were instructed to use dictionaries and they were provided with bilingual as well as English monolingual dictionaries. The reason for allowing the use of dictionaries in Al-Besbasi's experiment was twofold: a) the belief that the dictionary is an indispensable tool for the translator in carrying out the task of translating. Al-Besbasi (ibid.:156) believes that denying the subjects' use of dictionaries would be "testing their vocabulary rather than investigating the processes involved in normal translations" (ibid.:156); and b) the fact that the use of the

dictionaries is one of the basic categories for analysing the translation process, particularly problem-solving strategies.

The detailed analysis of the protocols led to the establishment of a number of interesting findings which are relevant to the present study, for example:

- a) The abundance of information obtained via the use of TAPs technique proved the usefulness and validity of this technique in revealing the internal structure of the translation process (e.g. translation strategies). The linguistic approach (the analysis of the finished TT only), on the other hand, “failed to provide new and useful information on the translation process”(Al-Besbasi 1991:316).
- b) The analysis of the data revealed that the presence of translation problems was the most observable basic element in the translation process. This is because “problems were not only responsible for the larger part of the subjects’ verbal reports, but they also determined the strategies to be used” (ibid.:324). This finding, understandably, substantiates a similar finding of a number of TAP studies (e.g. Krings (1986) Jaaskelainen (1987) Lorsch (1991), and the present study) which suggest that the verbalisable data (conscious processing) of the translation process is problem-related.

Two types of translation problems were identified in the data, namely comprehension problems and production problems with infrequent overlap. Interestingly, 95.7% of all the translation problems were caused by a single ST lexical item (a roughly similar result was found in Krings’ study (1986:266) and the present study in which more than 90% of the problems were caused by specific lexical items in the ST). Such an interesting finding, therefore, may validate the use of translation problems and strategies as the basic categories for analysing the translation process of the subjects of the present study.

One predicted finding which relates to translation problems was that Group B (translating into the foreign language) encountered twice as many problems as Group A. This result, undoubtedly, strengthens the claim that translating into a foreign language is substantially more difficult than translating into the native language.

The percentage of translation problems was found to be determined mainly by the following factors: (a) subjects' translation proficiency, (b) the nature of the ST, and (c) the directionality of the translation (the subjects translating into the foreign language encountered twice as many problems as the subjects translating into the mother-tongue).

c) Dictionary reference was by far the most common strategy employed by the subjects to solve translation problems. Because of this, a whole chapter was devoted to this particular strategy with the objective of examining fluctuations in dictionary use by the subjects, as well as the purpose and usefulness of their consultation, among other features. The analysis of the protocols showed that the bilingual dictionary was the main source of reference, as 92.1% of all consultations were made with the bilingual dictionary. Furthermore, it was found that there is "a pattern of inverse correlation between the translational experience of the subject and the number of times he/she uses the dictionary (i.e. as a subject's experience increases the number of dictionary reference acts decreases and vice versa)"(Al-Besbasi 1991:333). As regards the degree of assistance in solving translational problems, the bilingual dictionary proved beneficial in the majority of cases of consultation. The monolingual dictionary, by contrast, helped in only 24.4% of all consultations. Al-Besbasi (ibid.:335) believes that the limited

assistance provided by the monolingual dictionary is the result of some inherent limitations, the subjects' improper use, and the nature of information sought by the subjects. It was also revealed that the faulty use of the dictionary had a crucially negative effect on the quality of the subjects' translations. The subjects' improper use of the dictionary was manifested by a number of cases, such as (a) selecting a wrong equivalent that did not suit the TT, (b) misinterpreting relevant information offered by the dictionary (such improper use is believed to be the result of the subject's failure to understand the information provided by the dictionary, reluctance to accept unfamiliar information, and inadequate proficiency in the foreign language).

2.1.3.4. Lorsch

In 1991, Wolfgang Lorsch conducted an extensive TAP study which investigated translation performance, translation process, and translation strategies. Lorsch's research was mainly based on the analysis of the psycholinguistics of translation performance as contained in a corpus of TAPs protocols from German into English and from English into German. The subjects were native speakers of German who were mostly first and second year students of English as a foreign language and who had little experience and hardly any training in translating. The reason for not choosing professional subjects for the experiment was because of their higher competence, in comparison with non-professional ones. This would have increased the degree of automation in their translation, yielding hardly any data from which aspects of the translation process could be interpreted.

One major aim of Lorsch's study is the reconstruction of the translation strategies that underlie translation performance. Prior to the identification of translation strategies in the data, Lorsch searches for an accurate definition for *the notion of strategy* which he believes has not been clearly defined in linguistics and "denotes highly different phenomena, and very rarely is it defined precisely" (Lorsch 1991:68). He, therefore, adopts Faerch and Kasper's definition of communication strategy as

A potentially conscious plan for solving what to the individual presents itself as a problem in reaching a particular goal.

(Faerch and Kasper's (1980:80)

Accordingly, Lorsch defines a translation strategy as

A potentially conscious procedure for the solution of a problem which an individual is faced with when translating a text segment from one language into another. (Lorsch 1991:76)

Lorsch's adoption of Faerch and Kasper's view of the notion of strategy is based on the fact that their definition includes the elements of *problem-orientedness*, *potential consciousness*, and *goal-orientedness*. Hence, translation strategies have their starting-point when the subject realises a problem and their end in finding a solution to the problem or in the subject's realisation of the insolubility of the problem. (The notion of strategy will be discussed in some detail in chapter 5.)

Lorsch (1991:96-107) identifies a number of elements of translation strategies (i.e. detectable problem-solving steps) in the protocols of his subjects which he classifies into original and potential strategies, as listed below:

Original Elements of Translation Strategies

-Realizing a translational problem

- Verbalizing a translational problem
- Search for a (possibly preliminary) solution to a translational problem
- Solution to a translational problem
- Preliminary solution to a translational problem
- Parts of a solution to a translational problem
- A solution to a translational problem is still to be found
- Negative solution to a translational problem
- Problem in the reception of the SL text

Potential Elements of Translation Strategies

- Monitoring (verbatim repetition) of SL texts segments
- Monitoring (verbatim repetition) of TL texts segments
- Rephrasing (paraphrasing) of SL text segments
- Rephrasing (paraphrasing) of TL text segments
- Discernible testing (checking) of a (preliminary) solution to a translational problem
- Mental organization of SL text segments
- Mental organization of TL text segments
- Reception (first reading) of SL text segments
- Comment on a text segment
- Transposition of lexemes or combinations of lexemes
- Translation of text segments
- Conceiving a second, third, etc. translation version
- Organization of translational discourse

According to Lorsch (1995:889), the original elements of translation strategies occur solely within strategic phases (i.e. aimed towards solving translational problems) of the translation process, whereas potential elements of translation

strategies can sometimes occur within non-strategic phases (directed towards accomplishing tasks (ibid.: 893)) of the translation process.

One interesting finding as regards the comparison of the strategies which the subjects used when translating from and into the mother tongue is that “the subjects generally attempt to solve problems in the translation into the mother tongue by means of linguistically less complex strategies than problems in the translation from the mother tongue” (ibid.:902). Obviously, one reason for this behaviour could be the subjects’ realisation that problems in translating from the mother language are more difficult to solve than problems in the translation into the mother language.

In a further study of translation processes (1993), Lorscher employs foreign language students as well as professional translators with the aim of investigating the similarities and differences as they can be detected in the strategic processing of the two groups (professional and non-professional translators). The analysis of the translation strategies revealed that the mental processes of the two groups of translators have many features in common, though not exclusively, and that no significant difference can be noticed. One minor difference, however, lies in the distribution and frequency of strategies, as the foreign language subjects employed more strategies than the professionals did. Another difference is related to the units of translation, i.e. the ST segments which the translator extracts and then renders into the TT are much larger among professional translators than among non-professional subjects. While foreign language students concentrate on single words, professional subjects, by contrast, choose phrases, clauses or sentences as units of translation. A further disparity between the two kinds of translators is manifested by the professional translators’ tendency to constantly examine their TT output, even if no problems were

involved. Foreign language subjects, on the other hand, seem to ignore checking the TT segments which they did not consider contained a translation problem, resulting quite frequently in some erroneous translations. Additionally, the two groups differed considerably in their attitude towards the quality and coherence of the TT. For example, it is typical of the professional translators to check the appropriateness of their TT, particularly with respect to the style and text-type adequacy. The foreign language subjects, on the contrary, only check the solutions to their translational problems, especially problematic lexical items.

2.1.3.5. Kiraly

In 1995, Donald Kiraly wrote a comprehensive book (*Pathways to Translation*) on the process of translation and the training of the translator. This work is exclusively based on a doctoral dissertation which Kiraly completed in 1990, namely *Toward a Systematic Approach to Translation Skills Instruction*, with the objective of establishing a rational approach to the training of translation skills for professional purposes by means of empirically investigating the psycholinguistic processes in translation as contained in the protocols of the subjects of the study.

Eighteen native German-speaking subjects participated in the experiment, including nine subjects who had some translational experience as professional translators and nine novice translators who were second-term students in the German-English translator training Programme at a German university. One major reason for selecting two types of translators (professional and novice translators) was to compare their translation performance. The subjects were given a specific assignment, i.e. to

translate the text (a tourist brochure describing the city of Frankfurt) as if it were to be published and distributed to English-speaking visitors of Frankfurt.

Kiraly (along with Jaaskelainen 1990 and Kussmaul 1995) added a new dimension to previous TAP studies by evaluating the subjects' translation products through a *global quality assessment* and a rating of *the functional acceptability* for each translation unit of the TT. The purpose of this evaluation was to test the translation training quality by means of assessing the subjects' translation competence. Besides, the subjects' unsatisfactory translations of certain text units may allow the investigator to identify inappropriate processes leading up to them. On the other hand, if the translations were of good quality, then one might assume with some justification that the subjects would most likely have employed appropriate strategies. Thus, identifying various solution-finding processes would allow translation educators to encourage their trainee translators to use appropriate translation strategies and to avoid using improper strategies in their attempts to achieve translation equivalence.

Surprisingly, the final analysis of the quality assessment for all subjects revealed some similarity in the translation competence of professional and novice translators. That is, no major differences were observed as regards the way translations were processed or in the quality of the translations of the two groups. On the whole, the global assessment measures indicated that the quality of the translations produced was quite low. The similarity in the translation processing of the two groups included the number of units translated and the number of problem and non-problem elements encountered.

As concerns the subjects' translation expectations, they displayed non-professional behaviour, as very few checked the appropriateness of their final translation product, despite the fact that they were given a specific translation assignment (i.e. translating for a target audience) and the fact that half the subjects were professional translators. Most of the strategies which the subjects used were geared towards the smallest identifiable translation units (at the word and word-string levels). It was uncommon for the subjects to induce strategies at the text level, such as editing with the objective of enhancing the quality of the translation. For example, only three subjects made some changes to their translations during the revision process.

As concerns the identification of problematic units which the subjects encountered during the process of translating, Kiraly observed two types of translation units: (a) units whose solutions required the employment of controlled problem-solving strategies and the subjects' focus of attention, and (b) units that were problems and whose solutions came from intuition and spontaneous associations, seemingly without the application of problem-solving strategies (Kiraly 1995:86).

Based on the findings of his case study, Kiraly (1995:110) came up with some interesting principles which can be useful steps for translation training programmes. These principles can be summed up as follows:

1-Translation educators should give emphasis to the acquisition of interlingual and intertextual associations. That is, the students should be trained to use intuitive associations when dealing with translational problems. It is also important to create realistic simulations of translation tasks and to choose a variety of texts which would suit different levels of translation proficiency.

2-The analysis of the data revealed no significant difference between the novice and professional subjects as regards the level of automatic processing (previous studies have shown that there is a linkage between the level of proficiency and the level of automaticity; as automation increases with high proficiency). The difference, however, involves the type of conscious processing when translational problems do occur, such as:

(a) Knowing how best to solve a translational problem;

(b) Knowing when a problem exists (i.e. developing potential problems awareness);
and

(c) Evaluating a tentative solution to a translational problem.

According to Kiraly, the above three conscious translational processes along with recognition, resolution and evaluation techniques should be emphasised in the translation training programme because of their relevance to the improvement of the trainees' translation competence.

3-Error analysis is an important teaching resource, as it helps translation educators to spot the areas of deficiencies (linguistic, cultural, comprehension and production) that need remedy. This technique should also help translation instructors to learn about the types of recognition, resolution and evaluation strategies required to deal with translational problems.

4-The identification of the type of errors made by translation trainees via the use of error analysis may provide guided practice to improve students' intuitive skills, conscious problem-solving strategies and the production of translation alternatives.

5-Translation educators should train their students to acquire *translator self-concept* and a functioning *translation monitor* which will be responsible for identifying and correcting errors in translation. The translation monitor determines the acceptability of translation results and directs the rejection of results and the application of strategies to resolve problems.

6-It is unlikely that professional translator skills develop naturally without specific training intervention. Professional skills should include, among other things, the ability to factor contexts of situation into the translation, the ability to edit and critically evaluate a translation and the ability to apply specific techniques for quality control.

7-Empirical studies of the process of translation may provide a mechanism for modifying and sequencing the content of a translator-training programme.

2.2.The status of translation pedagogy

2.2.1. A traditional view

The quality of translator training programmes is always dependent on whether translation is perceived as a language exercise or as an independent discipline. Traditionally, the status of translation pedagogy has always been (and still is in the majority of cases) marked by the common belief that translation is a language-centred activity for improving learners' L2 competence. This traditional approach ignores the communicative aspect (i.e. target readership) of the translation process as it focuses on formal aspects of linguistics such as spelling, punctuation, grammar, and comprehension of individual lexical items. It is also seen as a teacher-centred approach; that is, the instructor is seen as the guardian of *the model translation*, thus

ignoring the trainee translators' role in the learning process by giving a faulty impression that there is only one *correct* translation, the teacher's version. Conacher (1996:162), for example, asserts that in traditional translation pedagogy the most common method of teaching translation is "one in which students translate the given text individually, and subsequently the lecturer provides a "fair" or "model" translation, against which students are expected to measure their own individual efforts and to which they should aspire."

In recent years, a great deal of criticism has been levelled against traditional translation instruction. One major reason for this criticism is that such an approach is linguistic-centred; i.e. it does not take into account the communicative aspect of translation. Conacher (*ibid.*), for example, states that the traditional approach to translation training has lost its value and has been called into question and even dismissed as old-fashioned and of limited use, and, as a result, translation pedagogy has moved towards the adoption of a more communicative approach. Moreover, Snell-Hornby (1992:18) maintains that teaching translation as a language exercise would hamper trainees' translation competence, because such an approach would lead them to automatically assume "that this is what translation is - a kind of linguistic transcoding." Thus she adds, "the student has to relearn, be weaned away from thinking in terms of equivalent vocabulary items towards thinking holistically in terms of creating coherent texts"; that is, students should view translation as an end in its own right. Another source of criticism is the fact that "the traditional translation classroom presumes that a transfer of translation knowledge takes place from teacher to student" (Kiraly 1995:11), consequently leaving no room for learners' participation in the learning process. Kiraly (1995:99) criticises this practice when he asserts that

the way to developing translation training is “blocked by a persistent image of the instructor as the guardian of translatory truth--keeper of “the correct translation.”

Additionally, traditional translation pedagogy has been criticised for focusing on lexical-based considerations and overlooking communicative and text-based considerations, thus resulting in faulty one-to-one correspondences. This practice may lead translation trainees to have the misconception that translation involves little more than the mechanical replacement of individual ST units with TL individual equivalents. In this context, Sewell and Colledge (1996:142) maintain that “literality is a major preoccupation in “traditional” translation courses.” They add that students are advised to keep as close as possible to the original “in case the student loses any mark that might be attributed to a particular phrase, or might transgress the linguistic idiosyncrasies of the evaluator” (ibid.:143).

Traditional training of translation has also been described by some trainee translators, who later became professional translators, as a disappointing experience. Enns-Conolly (1986) describes the impact of traditional translation pedagogy on trainees and her personal experience as a student at a university training programme in Canada:

These classes involved professors asking students for their renditions of particular sentences, and then pointing out the divergences from their own master copies. This was a rather frustrating experience inasmuch as my translation could be classified as inadequate on the grounds that it did not match the definitive criteria for rightness and wrongness, and my task as a student was to approach rightness as much as possible. Under those circumstances it was difficult for any student whose translation differed from the master version to gain confidence in their own work. When I volunteered a rendition that the teacher believed to be inaccurate, I hesitated to enter further discussion afterwards. In face

of a right or wrong ruling on my work, my openness towards class discussion was thwarted. My underlining reasoning in translation was not considered, only my visible translation and how well it met the norm set by the teacher. (Enns-Conolly 1986:2-3)

Similarly, Rohl (1983, reported in Kiraly 1995:8) describes her frustrating experience as a translator trainee and the passive characteristic of a traditional translation classroom in a German university:

I first became interested in this topic [translator training] the day I realised, after having spent the entire day attending translation classes, that instead of being filled with language, I had remained totally silent. In addition, my own personality (which was apparently superfluous in this situation) had once again remained outside the classroom. First, I sat silently in a translation practice class, listening to translation suggestions and sometimes marking corrections in my text; then I listened silently to a lecture read aloud by the instructor; then, in a seminar, I listened silently to a paper read aloud by a student.

House (1980, reported in Kiraly 1995:7) similarly voices her discontent with a typical traditional translation class:

The teacher of the course, a native speaker of the target language, passes out a text (the reason for the selection of this text is usually not explained, because it is often a literary essay that the teacher has just “found” by accident). This text is full of traps, which means that the teachers do not set out to train students in the complex and difficult art of translation, but to ensnare them and lead them into error. The text is then prepared, either orally or in written form, for the following sessions and then the whole group goes through the text sentence by sentence, with each sentence being read by a different student. The instructor asks for alternative translation solutions, corrects the suggested versions and finally presents the

sentence in its final, “correct” form... This procedure is naturally very frustrating for the student.

Thus, with the above criticism in mind, one can say with some justification that it is inevitable that such *traditional* translation practices will fail to create professional translators who are confidently competent.

However, despite the disapproval of traditional translation pedagogy by the majority of contemporary translation educators and researchers, it is still widely practised in the majority of universities. Ulrych (1996:252), for example, asserts that “in modern language faculties the emphasis is on all-round education and translation is seen as just one of the activities to develop language competence.” Likewise, Sewell and College (1996) administered a survey whose main objective was to investigate the methodology of teaching translation in British universities. They distributed a total of 21 questionnaires which revealed that: in 19 institutions, translation is taught as a way of improving students’ linguistic proficiency, e.g. to “consolidate L2 constructions for active use” and to “monitor and improve comprehension of L2” (ibid.:137).

2.2.2. The pedagogical gap in translator training

The inadequacy of traditional training of translation and the absence of a systematic approach to translation instruction led to the recognition of a *pedagogical gap* in translator training. Kiraly, for example, points out that:

The present situation in TSI [Translation Skills Instruction] is marked by the lack of appropriate theoretical and empirical framework, thus perpetuating a pedagogical gap in the field

(Kiraly 1990:37)

Along these lines, Kiraly (1995:5) also asserts that “the lack of clear objectives, curricular materials, and teaching methods implies a pedagogical gap in translation

skill instruction. Translation students attend classes and earn degrees in translation studies, but courses in translation skills instructions are usually not based on a coherent set of pedagogical principles derived from knowledge about the aims of translation instruction, the nature of translator competence, and understanding the effects of classroom instructions on student's translating proficiency." By the same token, Wilss (1982) also describes the existences of a pedagogical gap of translation training in Europe as follows:

There are, to my knowledge, no attempts to develop yardsticks and criteria for a comprehensive progress-controlled, phased TT [translation teaching] frame work to build up a system of TT learning targets and, on this basis, to elaborate teaching and learning material for use in learner-group-specific TT classes or for self-teaching programmes. (Wilss 1982:180)

Kiraly (1995:18) rightly diagnoses a number of challenges for translation educators in their attempts to develop a systematic pedagogy of translation. These challenges are:

1. the absence of a systematic approach to translation education based on both pedagogical and translator principles;
2. the failure of translation pedagogy to use relevant contributions from other disciplines (sociology, anthropology, cognitive science, and psychology) and research from modern translation studies as foundations for translator training;
3. a one-dimensional view of the process of translation, characterised by overdependence on the linguistic model of translation and a discounting of the social and cognitive realities of professional translation;
4. the failure to merge the grammatical models of translation teaching with the interpretative and cultural models of translation teaching;

5. a dependence on the teacher-centred performance magistrale in the translation classroom;
6. an acceptance, and even encouragement, of a passive role of translation students;
7. a failure to undertake (and to apply the results of) empirical research on translation processes as a means to build a model of translation and translator competence upon which a translation pedagogy may be based;
8. an inability to distinguish language-related competences shared with bilinguals from professional competences; and
9. an absence of criticism of old practices and assumptions about curricula, including the usefulness, effectiveness, and teaching methods of certain specialized forms of translator training, such as translation into the foreign language.

2.2.3. Innovative initiatives in translation pedagogy: a new horizon

In response to the inadequacy and questionable value of traditional translation training, a number of promising initiatives in translation pedagogy have recently started to appear, with the primary objective of bridging *the pedagogical gap* in translation skill instruction. The main ideas of these contributions are summed up in Kiraly (1995:33) as follows:

1. moving from teacher-centred to student-centred instruction;
2. using teaching methods that foster responsibility, independence, and the ability to see alternatives;
3. using methods such as role-playing and simulation that create a greater sense of realism-and thereby generate enthusiasm and overcome passivity;
4. fostering creativity and encouraging co-operation through small-group techniques;

5. giving students tools for using parallel texts and textual analysis to improve translation;
6. teaching translation as a realistic communicative activity;
7. adopting new approaches to translation evaluation, such as commented translations; and
8. developing a sense of profession through a basic or core course in translation studies that develop broad translation principles and attaches them to translation practice.

Thus, the aims of these innovative studies of translation pedagogy seem to reflect modern trends in the field of second language education which advise against “passive rote memorisation and teacher-dominated classrooms” and call for “a learning environment in which students actively participate in the process leading to the acquisition of communicative skills” (Kiraly 1995:34).

In the following paragraph, I shall consider some of the most creative contributions in the new translation pedagogy which focus on, among other issues, teaching methods, motivation, evaluation, feedback, and the teacher-student relationship.

One of the most innovative approaches in translation pedagogy is the communicative translation method which is primarily a student-centred approach. It has gained a great deal of popularity among many translation educators because of its practicality and innovation. One of the most pioneering advocates of this approach is House (1980, reported in Kiraly 1995:23) who justifies the application of such a method on the grounds that it serves the main objective in foreign language teaching, namely communication competence. As a rule, students should enjoy some *autonomy* from the formality of the instructor, e.g. in choosing texts for translation. In this context,

House stresses that the learner “should be made to forget pedagogical context and to simulate a real act of communication in which s/he is personally implicated.”

House’s view of the value of learners’ independence from the teacher is shared by Holz-Manttari (1984, reported in Kiraly 1995:21) who points out that because there can never be only one way to produce an adequate version, teachers should give students the opportunity to see alternatives. Holz-Manttari states that “the task of the instructor is to show various paths to learners and to make the students independent from himself. The graduate will then later be able to adapt to and act responsibly in any professional situation.” She also believes that traditional teacher-centred learning is inappropriate because of its concentration on grammatical errors which usually result in the negligence of translation performance. Thus, in her description of her teaching practice, Holz-Manttari says: “I try to set up my classes so that each student learns how to develop an approach to translation that is adapted to her own, personal characteristics and that allows her to act as a responsible translator.”

Another distinguished advocate of student-focused translation training is Sainz (1992, 1994, and 1996) who has repeatedly criticised traditional translation pedagogy for ignoring the role of the trainee in the learning process and for being recklessly teacher-centred. Sainz’s application of student-focused translation pedagogy draws largely on some *Adult Learning Principles*, which were established by Brundage and Mackeracher (1980, cited in Sainz 1994:134-135). Some of these principles are:

1. Adults learn best when they are involved in developing learning objectives for themselves which are congruent with their current and idealised self-concept.
2. The learner reacts to all experience, as he perceives it, not as the teacher presents it.

3. Adults are more concerned whether they are changing in the direction of their own idealised self-concept than whether they are meeting standards and objectives set for them by others.
4. Adults do not learn when over-stimulated or when experiencing extreme stress or anxiety.
5. Those adults who can process information through multiple channels and have learnt 'how to learn' are the most productive learners.

With these principles in mind, Sainz (1994) designed an evaluation procedure which she called "student-focus process" to raise the awareness of translation educators and trainees as regards the learning process involved in correcting translations (i.e. how to learn from errors). This process is also aimed at dispelling "the element of fear or stress implicit in any written assignment" (ibid.:141). That is, in student-centred evaluation translation educators should be concerned with the strategies that "can be devised for correction so that it becomes a way of learning instead of a source of fear, stress or punishment for students" (ibid.:138), the main hampering factors of traditional evaluation approach of learners' translations (see descriptions of traditional translation practices by Enns-Conolly, Rohl, and House, section 7.2.1). Sainz's concern in such an evaluation process is on how students' translations "can produce useful feedback" for translation training programmes. Sainz also maintains that in traditional training of translation, the common practice is that students are not asked about their strategies for learning. Therefore, she points out that translation trainees "need to be made aware of all this [learning strategies] and to derive benefits from their past experience in the learning process" (ibid.:135).

Sainz also refers to her evaluation approach as “student rights based”, following Francisco Gomes De Matos’ *Checklist for Teachers* (1991, reported in Sainz 1994:137), which includes:

- a) Do my students have the right to make translation errors?
- b) What kind of errors?
- c) Are they told about the typology of the errors referred to?
- d) How empathic can I be, when evaluating translation accuracy and appropriateness?

Thus, in the light of this *checklist*, Sainz explains the effect of not considering the *student rights based* approach in translation pedagogy, as follows:

If we do not take our students and their rights into account, we run the risk of creating unaware and selfish professionals in the future, professionals who have never been given the chance of developing their own opinion about their work and who are unable to judge whether their work is accurate and appropriate simply because nobody ever made them think about it when they were studying at university. My contention is that we should build these “little cells” of awareness in our translation students. (Sainz, 1994:141)

Sainz’s call for autonomous learning is thus aimed towards raising students’ awareness and responsibility through assuming the role of *partners* to the teacher in the learning process (Sainz 1996). Along these line, Sainz maintains that as instructors of translation, we “should be able to raise students’ awareness of the active nature of learning and acquiring knowledge. It is not just a simple matter of passive fact-absorption, but a constant give and take, with the “energy” flowing in both directions.” Sainz goes on to say that “the time has come to consider that every individual in class is an active subject and that the responsibility for the learning

process lies not exclusively with teachers but is shared by both teachers and students, as well as by students among themselves” (Sainz, 1996:138).

To bring both sides of the learner-instructor equation into play and to raise learners’ awareness and motivation, Sainz (1996) proposed a number of activities which the student can carry out autonomously, such as back-translation, comparison of their own translations with a published translation, translations done in pairs, peer translations and analysis of translations. With such autonomous learning, “the students’ awareness of the scope of their task will grow: they will start to recognise their needs as students and future professional translators”(ibid.:139). Additionally, Sainz designed a questionnaire as a fitting start for *teacher-student negotiation*, with questions, such as “what do you think is your role as a student in this translation class?”(ibid.:140). The feedback obtained from such a questionnaire could be used to enhance the quality of the teaching and learning processes. Sainz explains elegantly the benefit of teacher-student role-sharing as follows:

If both teachers and students are rowing in the same boat towards the same destination, they should agree on the fact that it is through a clear understanding of their roles and ‘obsession’ for improving the quality of their roles and tasks that the burden of rowing will become more effective, making the ‘arrival’ safer. (Sainz 1996:141)

Sainz’s role-sharing approach would inevitably shift some of the weight of the responsibility of the learning process to translation trainees who would doubtlessly be more motivated to participate and to voice their opinions in class discussion, thereby “arriving at a satisfactory quality level” (ibid.:143), unlike the passive attitude of students in traditional translation pedagogy.

Sainz’s *humanistic approach* in translation pedagogy (particularly translation evolution methods) is also shared by Candace Seguinot (reported in Klaudy

1996:200) who believes that errors should not be considered as “violations of translational or language norms” but as “surface manifestation of phenomena which are the object of the study”, because errors “can give interesting insights into the normal processes of translation, and make possible better predictions about what kind of errors are likely to occur in translation.”

Gile (1992) proposes a communication model for translation training. This model is intended for correcting the non-communicative practices in the traditional translation class where trainee translators “tend to think of translation as a language-centred activity rather than as a people-oriented professional service: they strive to find linguistic ‘equivalents’ or near equivalents without trying to assess the communicative effect of their target-language text” (ibid.:187). He maintains that because professional translating tactics are communication-oriented, students should formulate the message contained in the ST in a way that would make the impact on the target readership as close as possible to the impact which the ST author is trying to achieve. The translation trainee, therefore, is “a communicator who represents the Author but also has a distinct responsibility towards ‘his’ Target Language Receiver” (ibid.).

Gile’s continued criticism of traditional translation training led him to espouse a process-oriented training approach, as opposed to the traditional product-oriented translation instruction which “is based on translation assignments which are corrected in class, with teachers criticising or approving the students’ choices and presenting their own solutions” (Gile 1994:107). Gile’s criticism of the product-oriented approach is based on two grounds:

1. It focuses on the product rather than on the processes, which means that the inferences for correct processes are to a large extent made by the students themselves, with little possibility of control by the teacher;

2. Very often, students reject the teacher's criticism and solutions because of diverging linguistic norms and because they feel attacked. This slows down the learning process (ibid.).

Gile (1994:108) sums up the basic philosophy of a process-oriented translation training system as follows:

- a) During the process-oriented part of the course, trainees are considered as students of translation methods rather than as producers of finished products. Throughout this period, their target language texts essentially serve as a looking glass revealing their methods, insofar as their problems are generally symptoms of methodological weaknesses. Problems which can be attributed to linguistic deficiencies are not dealt with during the process-oriented phase of the course;
- b) Teachers take a normative attitude as far as the processes are concerned. As regards the product, they put questions to the students whenever possible rather than criticise them ("Why this choice?" "Did you consider alternatives?" "If so, what made you choose this solution?" "Are you satisfied with this solution?" "Are you satisfied with this solution as far as logic/clarity/language is concerned?");
- c) Processes are supported by theoretical models which explain and integrate them. The most important one is the sequential model of translation; and
- d) Problem diagnosis can be done partly by analysing the product and partly by putting questions to the students as explained above. Written problem reports by the students are a very useful tool for diagnosis: when handing in translation assignments, students are also required to report in writing the problems they encountered while doing the translation- difficulties in understanding a particular sentence, in reformulating an idea, in finding the meaning of a source language term, in finding a good target language equivalent, etc.

In his application of the process-oriented approach in Japanese-into-French translation classes, Gile identified the most positive results of the approach (and a few limitations). The main observations are:

1. Psychologically, the process-oriented approach seems to generate less stress than the product-oriented approach.
2. Students are interested in the models and rules that are presented to them, and tend to accept them.
3. There are difficulties with problem-reporting, which the students tend to forget during the first few assignments because it is new to them. However, once they become accustomed to the idea, problem-reporting becomes a very efficient tool. Not only does it help the teacher with error diagnosis, but it also requires that the students carry out a methodological analysis and reflect upon fundamental questions, which makes them more receptive to instructions on issues such as: “To what extent is it admissible to deviate from the text?”, “What is the reliability of background documents if their terminology is variable?”, “How should one deal with source texts segments which seem illogical even after much analysis?”

We consider problem-reporting a strong component of the process-oriented approach.

4. There is a fast and considerable reduction in the number of errors due to faulty analysis of the source text and there were remarkably few logical contradictions in the students' texts.

In our view, this is the most positive result of the process-oriented approach.

5. However, as far as difficult decisions are concerned, the process-oriented approach seems to be of little help to the students.

This is probably due to the fact that rules presented to the students are too general to be used for specific decisions where intuition and experience play an important role. We do have a number of models, rules and methods for areas which are not covered by the sequential model, but, inevitably, there are some problems which they do not address adequately.

6. The process-oriented approach does not seem to improve the students' implementation of additional knowledge acquisition.

The problem apparently lies in motivation. Although they know that additional information is needed, students do not perform the necessary operation thoroughly enough, probably because of the time and effort required.

7. The process-oriented approach is moderately efficient with respect to the linguistic quality of the output. (Gile 1994:111)

Following Gile, Bowen (1994:178) advocates the process-oriented approach for translation training on the grounds that it does not concentrate on criticising results, since "the role of the teacher is not to terrorise the undeserving, but to build confidence, which must be justified" (ibid.:179).

Some translation educators have also criticised traditional translation pedagogy for not emphasising the social and cultural features in translation practice. Mohanty (1994), for example, proposes a translation programme, which is based on raising students' cross-cultural awareness. The importance of teaching culture is manifested by the belief that "translation, in essence, is not only a bi-lingual activity, but, at the same time, a bi-cultural activity"(ibid.:25). Therefore, as a model of teaching translation, translator trainees "would take a 'bridging course' in which the teaching of the cultures involved is central, more than the mere teaching of language"(ibid.:34). The primary aim of such course is "to enable the translator to

identify the areas of translatability of the source language into the target language”(ibid.).

Witte (1994) echoes Mohanty’s call for enhancing translation trainees’ bicultural competence in translation pedagogy. Witte insists upon the indispensability of setting up the subject *intercultural communication* as a special theme in the translation programme. This is because translator trainees who lack cross-cultural knowledge tend to falsely “project their own cultural frame of reference onto the foreign culture. That is, they interpret and evaluate foreign behaviour in accordance with their own cultural rules of conduct, and act according to the behaviour patterns of their own culture” (Witte 1994:70). Thus, as future translators, “students must be taught to regard this ‘never-ending’ endeavour of approaching foreign cultures not as a vain attempt but as an integral part of their future profession. Only then will they recognise the potential inherent in translation as a means to achieve a better understanding between cultures” (ibid.:75).

Krouglov (1996) espouses a similar approach in translation training; i.e. the teaching of sociocultural traits should constitute a significant part in the translation curriculum, because “a deep understanding of the ways in which social and cultural features are combined is indispensable in teaching translation” (Krouglov 1996:87). The emphasis in such a programme should be on cultural differences between the SL and TL so that translator trainees improve “their ability to draw the appropriate meaning from the source language text and culture into natural target language text and culture” (ibid.:82). Krouglov goes on to propose a number of useful problem-solving strategies for dealing with sociocultural problems in translation practice, such as reduction and expansion techniques. “Reduction is primarily used in order to do away with sociocultural notions which make understanding difficult or with irrelevant

explanations, whereas expansion of the information structure is necessary when the targeted audience is not familiar with sociocultural notions or where an explanation is needed” (ibid.:86). Krouglov also maintains that translation educators should make learners aware of the fact that translation is not to be taken as a word-by-word rendering, but should aim at achieving the closest communicative effect on the target readership which is closest to that achieved on the SL readership. “In so doing it is imperative that they [students] take into account the sociocultural factors which govern the choice of each lexical item” (ibid.:87).

A number of translation educators called for a translation pedagogy that brings classroom work closer to real-life translation (i.e. professional translation). Klaudy (1996), for example, maintains that because the main objective of translator trainees in a traditional training programme is to inform the instructor of their knowledge of the foreign language, “it is not justifiable to speak about professional translation when the translation chain begins and ends with the teacher” (ibid.:197), a practice which makes translation “a pedagogical exercise rather than an activity resembling real life situations” (ibid.:198). Klaudy cites three translation studies to support her argument for real-life translation, namely Vienne (1994), Dollerup (1994) and Pagano (1994). Firstly, Vienne (1994) argues for a training of *translation in situation* where the teacher plays the role of *a requester*. In such training the instructor should choose texts which he, the teacher, has translated and analysed in a real-life situation, so as to give proper explanations to the trainee translators when they *negotiate with the requester*. Vienne lists a number of questions which are to be asked by the translation trainee and answered by the requester; e.g. “Who wrote the source text?”, “Who are the target group?”, “What is the context of use?”, “Has the source text been translated into other languages?” and “What is the status of these translations?” (ibid.:55).

Dollerup (1994) similarly holds the view that professional training in translation can be achieved through a more realistic selection of texts for translation. According to this method, the instructor would ask translator trainees to translate only real-life texts; that is, texts that are not adapted or shortened, but aimed at achieving a realistic communicative task. Pagano (1994) meanwhile argues that the unproductive nature of traditional teacher-centred translation training is the result of the fact that the instructor is the only reader (and evaluator) of translator trainees' end product. This practice may lead trainee translators to "dismiss any consideration of normal readers and to concentrate exclusively on equivalence rendition" (ibid.:215). It also reinforces "the traditional emphasis on the adequacy between the target text and the source text, and disregards the 'acceptability' which a translated text is required to have in the new context of reception" (ibid.:214). As an alternative to this traditional practice (i.e. teacher-centred training), Pagano proposes the occasional replacement of the teacher by the student; e.g. by asking each student to hand his translation over to one of his classmates who should assess the translation as a casual reader, disregarding the existence of the original ST. However, despite the citation of the above three studies, Klaudy (1996) argues that such views (i.e. real-life situational analysis, real-life text choice, and occasional replacement of the teacher by the student) cannot change the fact that "if the end user of the translation is the teacher, we cannot speak of professional translation in teaching." Therefore, Klaudy's suggestion for bringing school-training closer to professional training is that teachers should apply professional error correction strategies by assuming the role of "an editor or an editorial reviser." This means that the teacher's (reviser's) role is to "facilitate the understanding between the source language writer and the target language audience"

(ibid.:199). Klaudy suggests the following conditions if we are to consider a professional training in translation:

- a) The teacher's work should be similar to the work of an editorial reviser.
- b) The trainer-trainee relationship should be different from the traditional teacher-student relationship and should be similar to the relationship between an experienced translator and a neophyte professional translator.
- c) Text revision for classroom purposes should be similar to revision for editorial purposes.
- d) Teachers of translation should have experience in editorial work.
- e) The school correction should look like real life correction, because trainees should be aware of the degree of work a reviser has to do to make a translation ready for print.
- f) All errors and mistakes should be corrected, not only pedagogically interesting ones.
- g) The correct solutions should be written into the text.
- h) Corrections should be made, not only at sentence level, but also at the text level, as they have to result in a coherent text submittable to the publisher.
- i) Corrections need not follow a pattern but may differ from each other if necessary from translation to translation and their aim should be to make each translation perfect in itself. (Klaudy 1996:202)

Another advocate of incorporating real-world criteria within a curriculum for trainee translators is Margherita Ulrych (1996) who maintains that in a translation programme we should “present translation as an activity which takes place within a social context and should be based on a careful and up-to-date assessment of their [the students] multifaceted future profession” (ibid.:251). This type of training, therefore, takes into account the assumption that translation is a communicative process that occurs within a socio-cultural context. In this context, Ulrych points out that for students to envisage a real-world situation in a given translation assignment, they should be aware of “the circumstances that initiated the translation process and all the relevant socio-cultural parameters.” To achieve this type of awareness, students should ask themselves questions such as: “who wrote the text? for whom? in what circumstances? with what intentions? what sort of readership was it intended for? what adjustments are required to produce a text that is acceptable to the target text readership?”, etc. (ibid.:253). Moreover, Ulrych points out that translation training can be brought closer to real-life situations through imposing professional time restrictions in translation assignments, so as to “reflect the realities of future professional needs.” Students’ awareness of a text’s mode of presentation (i.e. written to be read or written to be spoken) is also an important component of a real-life approach to translation training. Ulrych also stresses the importance of teaching editing skills, such as asking students to include in their finished product “an appropriate typographical layout or, if destined to be spoken, an appropriately readable form.” Additionally, trainee translators should be made aware that their finalised TT version should not be achieved at the first trial, because “re-encoding the message of the source text in the target text involves writing, rewriting and revising processes” (ibid.:254).

Ulrych also maintains that client-related skills should be an integral component of real-world translation training by, for example, providing students with specific guidelines and advice on the best ways to handle the relationship with future clients.

Thus, in her attempt to activate and monitor trainee translators' translation competence with the framework of real-life criteria, Ulrych proposes that students be asked to write *dossiers* before final exams, as part of their continuous assessment record. The dossiers must include the assigned STs with their surrounding co-texts along with commentaries, as well as their translations together with detailed explications on the solutions chosen. This should be followed by a detailed account of the research methods applied during the process of translating, including the use of translation aids, such as dictionaries, glossaries, model and parallel texts, and consultation with the author or subject experts. Such exercise would enable translation educators to assess whether trainee translators are capable of accessing appropriate information effectively. Trainees should also be encouraged to design their own glossaries for future use. The dossiers should be assessed globally on a process as well as a product basis, and then trainees invited to discuss their allocated score. The dossiers will also help in evaluating learners' proficiency in the mother language since the commentaries are written in the mother tongue, as "it is important not to neglect native-language skills in a translation course" (Ulrych 1996:258).

Ulrych concludes that the feedback gained from dossier assignments and the employment of a real-world approach has given promising results. Trainee translators found that dossier assignment "enhanced their self-awareness and offered a useful means of assessing their own competence by monitoring their performance" (ibid.). The compiling of dossier assignments also motivated them to contact writers and

experts in the outside world. This type of motivation was a notably pleasant outcome, because “novice translators are sometimes reluctant to establish such contact” (ibid.).

Another innovative attempt to bridge the gap in translation training is that of some TAP researchers (e.g. Krings 1986 Gerloff 1988, Lorsch 1995, Kussmaul 1995, Kiraly 1990 and 1995, and Shreve 1995) who argue for the integration of the psycholinguistic model of translation with the practical model so as to establish a systematic approach to translation instruction. The psycholinguistic model is based on the study of the translation process through the employment of introspective techniques because some of what translation educators need to know for teaching effective translation is hidden inside the minds of trainee translators. Kiraly’s call (1995) for the employment of a psycholinguistic model in translation pedagogy is the result of his criticism of traditional translation training which is marked by “the virtual absence of knowledge about what goes on in the mind of the person translating” (ibid.:12). Kiraly adds that assembling a psycholinguistic model in a translation programme would “contribute to a better understanding of whether what we are doing in our translation classroom is adequate, or even appropriate, for helping students acquire professional translation skills” (ibid.:13). That is, by identifying and categorizing trainees’ and professionals’ conscious translational strategies, translation educators will be able to teach those strategies and processes which prove effective and successful. Other benefits of a psycholinguistic approach in translation training are suggested by Kiraly as follows:

...in addition to teaching specific strategies, it would be productive to emphasize consciousness-raising--- making students aware of their own psychological processes so that they can reflect on the strategies they actually use, recognize which ones work in particular

situations, and evaluate those that seem to be less effective. Students will be building a translator's self-concept and the ability to monitor translations. (Kiraly 1995:113)

Kiraly also describes the method of applying the psychological approach in a translation class:

Talk-aloud activities could be used in translation practice classes to enhance students' awareness of their own mental processes while translating. Students could translate a passage individually or in small groups and record their thoughts on audiotape. The quality of the translation product could be assessed by the instructor (or the other students), and the group as a whole could then analyze the results, including the relative effectiveness of various strategies used. Such activities would encourage students to think of translation in terms of process as well as result. The social factors relevant to a particular translation situation could be drawn into the discussion, helping students to appreciate the communicative and personal interdependencies involved. (ibid.)

The importance of incorporating a psycholinguistic model in translation pedagogy is also emphasised by Krings (1986) who criticises traditional translation theorists and educators for failing to take into account the real processes involved in the translation process. As a result, Krings employs the psycholinguistic approach with the aim of designing better curricula for translation training through illuminating the translation processes and skills observable in trainee translators' protocols. In this context, Krings identifies the rationale for his subjects' inadequate translational competence as follows:

This [the students'] inadequate translational behavior was found to be caused mainly by the exclusive use of noncommunicative translation activities in foreign language classes. In these activities,

the teacher assumes the role of both the client and the readership for a translation which has no communicative function and whose primary objective is the practice and testing of linguistic knowledge. (Kring 1986b, reported in Kiraly 1995:13)

Lorscher (1995) also espouses the use of a psycholinguistic model in translation training programmes so as to identify and teach the successful translation strategies. Similarly, Gerloff (1988) advocates the use of a psycholinguistic approach on the grounds that it helps translation educators to identify a wide range of effective problem-solving strategies, which if taught systematically may lead to enhancing the quality of translation instruction. Kussmaul (1995:cover page) also points out that the most important advantage of a psycholinguistic model lies in the fact that “the creative and successful processes observed can be used directly for teaching purposes, while the unsuccessful ones can serve to find out where remedial training is needed.”

Shreve (reported in Kiraly 1995:x) argues for a new translation pedagogy which is based on theories of translation that emerge from the translation process itself; that is, the translation training programme has to be derived from an understanding of translation reality (i.e. process). He adds that educators’ unawareness of the psycholinguistic reality of translation would result in failing to set reasonable objectives, an inability to create and apply befitting techniques for the training task, and a failure to measure and evaluate results. Thus, Shreve points out that the translation approach that we need should be based on an empirical analysis of what effective translation practice is and how it may be achieved. This can be attained only by engaging in the study of translation, by describing how successful translators do their work and achieve good results that are tailored to a variety of different situations, catering for different intents and needs, and employing a variety of

different strategies. He concludes that the psycholinguistic approach “must provide a description of translation as real, not as imagined or supposed, cognitive reality”(ibid.:xii).

The use of computer technology in new translation pedagogy has also been the focus of attention for some translation educators. DeCesaris (1996) for example, calls for incorporating sophisticated software and machine-aided translation tools (e.g. computerized terminology programmes) into our academic curricula. DeCesaris maintains that the pedagogical use of computer technology can benefit trainee translators mainly because their future professional workplace is becoming increasingly dependent on technical devices. It is also the case that because students are becoming more computer literate, they are expected to respond favourably to being taught how to use the most sophisticated technology. DeCesaris, therefore, concludes: “in order to train professionals for the modern workplace, a university programme should at least introduce students to the tools available for tackling real world problems” (ibid.:268).

2.3. Research gap

Research in the areas of empirical and pedagogical translation is still in its infancy and the present experiment was carried out with the objective of moving the research in these two areas a step forward by examining the translation performance of a number of trainee English-Arabic translators. Most of the empirical studies of translation have focused primarily on the process of translation and rarely made a link to the end product. In pedagogical translation studies, on the other hand, a great deal

of emphasis is laid on the end product of trainee translators and little is known about their translation processing. The present study endeavors to bring both sides of empirical-pedagogical equation into play by empirically investigating the translation process of trainee translators and ultimately evaluating their translation product. Moreover, most of the existing literature in empirical and pedagogical translation has been oriented towards non-Arab translation learners (e.g. German, Finish, English, French, etc.). No major empirical study is known to have been conducted to give a combined account of the translation process and product of trainee English-Arabic translators. The inadequacy of research on the process of translation of Arab learners of translation resulted in a pedagogical gap, i.e. a lack of knowledge about the actual translation problems, problem-solving strategies and global behaviour in trainee translators' performance. The present experiment is an attempt to bridge this research gap by investigating these unresearched areas and ultimately evaluating the end product for didactic purposes, i.e. to identify the strengths and weaknesses in the subjects' translation performance with the objective of enhancing the status of translation pedagogy.

CHAPTER THREE

3. Experiment design

3.1. The objectives

The present experiment was carried out with the objective of finding answers to the following questions:

- 1- What are the key lexico-semantic problems in the translation of trainee English-Arabic translators?
- 2- What are the main problem-solving strategies which Arab learners of translation employ to solve translation problems?
- 3- What is the effect of translation problems and problem-solving strategies on the subjects' translation quality?
- 4- What is the quality of the translation performance (in terms of process and product) of trainee English-Arabic translators?
- 5- What are the main lexico-semantic errors in the translations of Arab trainee translators, and what are the sources of these errors?
- 6- What are the main efficient and inefficient patterns of behaviour which influence the quality of the translation of trainee English-Arabic translators?

The above questions are the main operational objectives of the present study and they are all descriptive in nature. The answers to these questions in the subsequent

chapters will allow the investigator to propose a number of useful didactic implications (c.f. chapter 7) which are aimed at enhancing the status of translation instruction.

3.2. The method

The method used in the present experiment is TAPs which was introduced in the previous chapter. Additionally, error analysis, described in chapter 6, has been used to complement TAPs, i.e. to assess subjects' translation quality and errors. Error analysis has also been made use of in accounting for errors that the subjects have failed to realise, especially those which result from unwary behaviour towards potential lexical problems.

The use of error analysis in the present study is in line with Jaaskelainen's recommendation (1990:133) that "the actual analysis must be based primarily on the process data (the think-aloud protocols) together with the product data (the translations produced by the subjects)." Combining TAPs with errors analysis has also gained support from Kussmaul (1995:8) who criticises previous TAPs studies on problem-solving strategies (e.g. Krings 1986 and Lorsch 1991) for failing to combine the analysis of the protocols and the evaluation of the written translation. His criticism is based on the awareness that what subjects think to be a successful problem-solving strategy may end in a translation error. With that in mind, Kussmaul asserts that "we cannot abstain from evaluating the translations which are produced at the end of the processes observable in the protocols." In other words, Kussmaul contends that combining the two techniques is justified on the grounds that some errors are made spontaneously and without any remark, which may indicate that the problem was not realised at all. Thus, in his investigation of the solution-finding

processes, Kussmaul links up processes and products by analysing the subjects' protocols and eventually evaluating the finalised translations through the use of the model of communicative error analysis and translation quality assessment.

Therefore, the analysis in the present study will comprise both subjects' protocols data which they externalise during the process of translating, as well as the final product through the use of quality assessment and error analysis techniques with the aim of measuring up the seriousness of the problem. Errors will be evaluated in terms of the extent to which they constitute an obstacle to communication. For the sake of objectivity, an independent evaluator will be consulted as regards the general evaluation of subjects' translation quality (i.e. functional adequacy within the translated texts). The role of the independent evaluator will be to second-mark all the translated texts to ensure the validity of the experimenter's general assessment.

Because the aim of the study is to identify lexical problems and problem-solving strategies, a coding scheme (i.e. problem and strategy indicator) for the identification of translation problems and strategies has been used in the present study which draws on Krings (1986) and Lorsch's (1991) problem indicator models which will be introduced in chapter 4.

3.3. The subjects

The subjects of the study are 12 fourth-year-advanced students of English as a foreign language at the Department of English and translation, Imam University in Qasseem, Saudi Arabia. They belong roughly to the same age group (i.e. in their early twenties) and come from the same social and economic background. As far as their linguistic proficiency is concerned, the subjects have Arabic as their mother language and are expected to have an adequate command of English to carry out the task of translating

in the experiment. Although the subjects are trained to be qualified language teachers as well as professional translators, their previous encounter with translation is confined to a 3-hour translation workshop per week in which translation is taught as a 2L exercise to enrich their vocabulary and language proficiency, and not as an independent discipline in its own right. Because of that, the subjects in the present study are referred to as non-professional translators (unlike the subjects in Jaaskelainen and Tirkkonen-Condit (1989) where the advanced students have been described as professional translators because of the nature of training they had, as they attended proper translation classes).

The reason for choosing non-professional translators (i.e. advanced undergraduates of English) as informants for the present study is because of the epistemological aim of the study to develop translation training programmes at university level by identifying potential translation problems and successful problem-solving strategies.

Thus, the criteria for choosing the subjects of the experiment are: a) an adequate linguistic and translational competence (it should be borne in mind the fact that the subjects' competence in English and translation is by no means homogeneous but roughly belongs to the same level of proficiency); and b) a willingness to take part in the experiment. The latter criterion proved difficult as most of the translation trainees asked to take part in the experiment expressed discomfort with the thought that their translations might be evaluated as well as their belief that the researcher may find faults with them which may affect the progress of their courses (this was pointed out by some of the subjects in a private communication during the process of subjects' selection). Fortunately, such reluctance was overcome when I assured the participating subjects that their translations will be dealt with anonymously (pseudonyms are used in the present study), and that the experiment results would be

used only for research purposes. This pattern of thinking and behaving which is quite common in school and universities has been recognised as a hindrance by a number of researchers on translation studies. Wilss, for example, rightly points out that:

...translation trainees are as a rule unwilling to serve as test subjects, because for obvious reasons they want to finish their university course as quickly as possible and to keep their level of proficiency anonymous as well as to avoid anything that distracts them from their goal, as well as their fear of others finding faults with them. (Wilss 1996:48)

Another sign of the subjects' fear of criticism is their unanimous agreement as regards the direction of the translation when they expressed their preference for translating into the mother tongue. Such preference may reflect the subjects' lack of confidence in the foreign language proficiency as well as the type of translation training they had (i.e. translating into the mother tongue is always given priority over translating into the foreign language in translation classes).

3.4. The source texts

Choosing an appropriate textual material for the experiment turned out to be a difficult task for the simple reason that it is out of the question to find a single text that would exhibit all the potential lexical problems of translation. To overcome such hindrance, the researcher came to the conclusion that the best possible way would be to pick out a number of short texts (or segments of texts) with potentially various lexical difficulties for which the subjects must employ problems-solving strategies. There will certainly be elements of lexical difficulty which are not represented in the ST (i.e. because of the impossibility of finding a ST or a limited number of texts that

have all the lexical problems) and therefore cannot be observed in the subjects' protocols

Hence, the criteria for choosing the STs can be summed up as follows:

1. The ST must contain sufficient problems so as to stimulate the subjects to use problem-solving strategies. However, the number of lexical problems should not be extremely high as this may discourage the subjects from completing the task.
2. The lexical problems must be of a solvable nature. That is, the difficulty of the lexical problems should not be insurmountable as this may again discourage the subjects from proceeding with the translation. In other words, the subjects' heterogeneous linguistic and translational competence should be taken into account in terms of both number and quality of problems.
3. The ST should include at least most of the types of the potential lexico-semantic problems, e.g. cultural, collocational, figurative, connotative, and abbreviations, among other things.

The six short texts picked out for the experiment were fairly difficult for the subjects and the reason for choosing them was the great variety of lexico-semantic problems.

A certain familiarity with the subject matter of the chosen texts can be assumed given that the subjects of the study have been exposed to similar excerpts in their previous translation training.

In order to validate the suitability of the chosen texts, I have used my linguistic/translational intuition, my teaching experience of translation at university level, as well as my knowledge of the subjects' foreign language and translation competence. This was done in the form of a pilot experiment which I carried out on myself to sense the lexical items which I thought would pose some difficulty for the

subjects. A cursory analysis has revealed the suitability of the selected texts on the grounds that they met all the criteria which I set for myself prior to the experiment.

The greatest difficulties were assumed to be in the comprehension of the ST, simply because the subjects were translating from the foreign language into their mother tongue. Such an assumption was corroborated by the subjects' protocols which will be discussed in detail in chapter 4.

3.5. The experiment

The experiment took place in the English laboratory, at the Department of English and Translation in Qasseem, Saudi Arabia. The recording of the experiment was made in two separate sessions, of one-and-a-half-hours each. Twelve subjects participated in the experiment. Two of these subjects, namely Naseem and Habeeb, have been used to test the validity of TAPs technique and its effect on the overall quality of the translation. They were instructed to use TAPs only in the first session of the task. In the second session, on the other hand, they were asked to translate normally without using the TAPs technique. Interestingly, a thorough analysis of the translations of the two subjects has revealed that there were no significant differences as regards the quality of the translations for both subjects in the two sessions (i.e. with and without the use of TAPs technique). This, of course, would entail the minimum effect, if any, of TAPs on the subjects performance of the task. If a significant effect was noticed, however, the methodology would have been refined and the experiment would have been repeated to suit the epistemological aim of the study. The protocols and the final translations of these two subjects will be eliminated from the final analysis of the present study because they have been used to serve the above-mentioned purpose. That is to say that the analysis of the data for the present study will be confined to the

protocols of the remaining ten subjects. Although it is true that the more subjects one recruits in a given experiment, the more valid the findings are, the number of subjects is by no means a few, as was the case in other similar studies which yielded many interesting results (e.g. Jaaskelainen (1987) 4 subjects, and Krings (1986) 8 subjects). Additionally, recruiting ten subjects proved suitable for the present experiment mainly because it allowed a detailed evaluation of each subjects' translation performance (c.f. chapter 6) within the scope of the present study.

Prior to the start of the experiment, the subjects were instructed orally on the use of TAPs. They were asked to think aloud anything that comes to their minds during the process of translating. The reason for not restricting the verbalisation to only reporting special information (e.g. problems of translation) is because such a constraint would affect the translation performance, as the subjects' effort to elicit certain information may have a more substantial effect on the task performance by imposing additional demands on their memories. It was assumed that such instructions would facilitate fluent verbalisation in making the subjects at ease with thinking aloud right from the beginning.

The STs were given to the subjects in two sessions, with half the texts in each, and the task description was delivered to them orally because some previous studies have shown that experiment informants ignored written task description (e.g. Jaaskelainen 1990; and Jaaskelainen and Tirkkonen-Condit 1991).

The translation task was to translate the English texts into Arabic, their mother tongue. The justification for choosing to translate into the mother language is that the subjects had practically no experience in translating into the foreign language (i.e. English) and were fairly reluctant to take part in such an investigation.

They were given no specific translation assignment (i.e. translating for a specific audience); rather they were asked to translate according to their normal routine.

Prior to the start of the tape recordings, the subjects were allowed a few minutes, as a warm up, to try the use of TAPs while translating. It was hoped that such a warming up would familiarise the subjects with the technique and that the subjects would not find it a strained task to verbalise their inner thinking during the translation process.

The subjects carried out their verbalisation in Arabic with the exception of Ali who occasionally resorts to English to externalise his thoughts. Using Arabic to think aloud was recommended to the subjects by the experimenter on the grounds that the use of the mother tongue would be more convenient as well as more natural. The subjects differed in their fluency of verbalising, yet on the whole they were exceptionally fluent especially as they progressed through the task. One subject (Hasan) used the 'think-then-summarise' technique (Ericsson and Simon, 1984:88) when, upon finishing the translation, he gave a direct account of the problems he encountered as if he was interviewed. Such behaviour can be explained by the fact that Hasan might have been aware of the fact that the aim of the study was to identify translational problems. The subjects were allowed to have pauses in the verbalisation, whenever these were necessary so as not to feel pressurised not to stop verbalising when they needed to do so.

The informants were allowed to use dictionaries in the experiment because of the crucial need for such sources of reference as they are the translator's *tools of trade*. They were instructed that in the event that they needed more dictionaries other than those at their disposal, they would be provided for them. Most of the subjects made such a request, especially when the dictionaries they had proved unhelpful in their search for meanings of problematic lexical items.

Regarding the time of the experiment, the subjects had plenty of time at their disposal, which I thought would be sufficient for them to do an extensive search to find solutions to the potential problems that the ST exhibits. In other words, the subjects were not pressed for time, as this would encourage them to use short-cuts to finish the task at hand which in turn may affect the progress of the experiment. The analysis of the protocols revealed that all the subjects managed to finish their tasks and that most of the time was spent in dealing with problems that they encountered during the process of translating.

The experimenter was present during the two sessions of the experiment, as his presence was required for the following purposes:

- 1) To explain to the subjects the use of TAPs and to give them the task description;
- 2) To encourage the subjects to think aloud as much as they can;
- 3) To encourage the subjects to complete the translation task at hand;
- 4) To monitor the recording of the tapes through the control desk;
- 5) To write notes on the global behaviour of the subjects during the process of translating; and
- 6) To provide the subjects with anything they needed that was relevant to the experiment (e.g. answering a question or providing a requested dictionary)

The only verbal intervention on the part of the experimenter was to remind the subjects to resume thinking aloud whenever a long pause was noticed.

After the completion of the experiment, there was no formal follow-up questionnaire but rather a friendly group discussion with the subjects which centred around their views of the experiment in general and the use of TAPs in particular. The subjects talked favourably about the experiment stating that they benefited from the new experience. They also pointed out that although they viewed TAPs as a hindrance at

the start of the experiment, they began to enjoy the challenge of thinking aloud and translating at the same time. As regards the effect of the new technique on the quality and speed of their translation, the subjects thought that TAPs had little effect, if any, on their translations.

3.6. The transcription

The raw TAPs data collected for the present study amounted to approximately 30 hours of verbal data for ten subjects. Because of the scope of the study, only protocols relating to lexical problems and strategies have been classified for analysis. As was anticipated, the subjects' protocols have been transcribed to produce a wealth of information and commentaries about the subjects' translation processing which other speculative techniques failed to detect (e.g. contrastive analysis). This, of course, validates the claim that TAPs is a valuable source of data for empirical studies on the translation process (particularly translation problems and strategies), such as the present study.

The purpose of transcribing the verbal protocols of the subjects was to facilitate the analysis of the protocols without having to listen to the tapes over and over again which would be a time-consuming procedure. However, it should be mentioned that the process of transcription is not an easy operation but rather a depressing full-time job which requires attention and effort. To reduce its painstaking nature, I have developed my own transcription coding system which I tried to simplify as much as possible for the analysis of the protocols. For example, I have used three stars (***) as a problem indicator and one star (*) as a strategy pointer, to name but two signs.

CHAPTER FOUR

4. Lexico-semantic translation problems

4.1. Introduction

In this chapter, the TAP data of the present study will be investigated in relation to the types and frequency of translational problems encountered by non-professional translators, i.e. the subjects of the present experiment. The importance of investigating translational problems lies in the fact that their presence triggers “a sequence of reactions on the part of the subject, and hence their important role in shaping the structure of the translation process” (Al-Besbasi 1991:108). In other words, studying translation problems will facilitate a better understanding of the translation process when they activate translators’ problem-solving strategies, an important feature of the translation process. In the present study, for instance, the importance of studying translational problems is reflected in the fact that most of the subjects’ time during the translation task was spent in dealing with problematic lexical items (i.e. searching for their potential meaning and TT equivalents).

The importance of studying translational problems is also emphasised by Krings (1986) who, in his most comprehensive discussion of the process of translation of non-professional subjects, concludes that the notion of translation problems (and problem-solving strategies) proved to be the most important single feature of the translation process.

The analysis of translation problems in the present study will be confined to potentially problematic lexical items. That is, *translation problem* is used here to

refer to lexico-semantic problems (i.e. the meaning of words), as investigating other aspects of translation problems (e.g. stylistic and syntactic problems) is beyond the aim and scope of the present study. What should be noted here, however, is that talking about lexical items should not be taken to mean words in isolation, but rather words within the context. In other words, word-meaning problems should not be perceived as isolated concepts without much consideration for the context in which the lexical item occurs.

One major reason for restricting my analysis of translation problems to lexical items is the belief that, based on previous teaching experience, translation trainees seem to encounter most of their translation problems at word level. This assumption is corroborated by a number of TAP studies (e.g. Krings 1986, Al-Besbasi 1991, and the present study). Krings (1987), for example, points out that the analysis of his subjects' protocols has shown that 90% of translation problems were posed by single words. Furthermore, Al-Besbasi's (1991:116) analysis of the translation of two groups of translators (one group translating from the mother language and the second group translating into the mother tongue) revealed that just about 95.7 of all counted translation problems were caused by a single ST lexical item. Thus, based on the findings of his study, Al-Besbasi rightly concludes that it is single words that are the most common problem in translation.

The importance of the notion of translation problems is also demonstrated by the fact that most of the informants' protocols were related to problem identification as well as problem-solving strategies.

Investigating translational problems in this chapter will be basically a qualitative as well as a quantitative analysis of the most common problematic lexical items encountered by the subjects of the study. Individual problems (potentially non-

problematic lexical items which posed difficulties for one or a few subjects), on the other hand, will only be analysed quantitatively.

4.2. Translation problems: a definition

According to Lorsch (1991:79), the concept of a problem consists generally of three components: a) an undesirable initial state; b) a desirable goal state; and c) a barrier which prevents the transformation of the initial state into the goal state. This general observation can serve as a starting point for a more specific definition of the notion of problem in translation.

Accordingly, the analysis of the protocols of the present experiment has shown that translation problems occur when translation cannot be processed spontaneously, i.e. the natural flow of translation (automatic processing) is interrupted by the translator's identification of a translational problem (i.e. a statement of the problem or by the implementation of a problem-solving strategy, e.g. the use of reference material). In other words, a translation problem emerges when the translator realises, at a given stage of the translation process, that he is unable to transfer a ST unit into the TL. A similar definition is given by Kiraly (1990:149) who points out that translation problems emerge from the sub-control work place when automated processing fails to produce tentative elements. These problems are considered in the conscious processing centre and a strategy is chosen and applied to deal with them.

Thus, in contrast to the traditionally hypothetical view of the notion of translation problem, the above definition is perceived from the perspective of the translator (i.e. as empirical), not the theorist or the analyst (i.e. as theoretical).

4.3. Problem indicators

In the following section, a problem indicator model will be introduced so as to establish a technique by which translation problems can be identified.

4.3.1. Definition

The concept of *indicator* can be generally defined as an observable sign which reveals something, e.g. the lightning and thunder are indicators of rain. In the present experiment, the word *indicator* refers to the clues that the experimenter uses to detect translational problems found in the protocols of the informants.

The operational criteria by which subjects' lexico-semantic problems are detected are based on Krings' indicator model for identifying translation problems (1986:267). It was hoped that the application of this indicator model would allow a reliable identification of the different types of translational problems which the subjects encountered during their task performance, as well as providing a means by which these problems can be analysed quantitatively.

The same model will also be used in the present study as a framework for the identification of problem-solving strategies (see chapter 5) which the subjects apply to bring about solutions for problematic lexical items.

Krings' model consists of the following features:

1. The subjects' explicit statement of problems
2. The use of reference books
3. The underlining of source-language text passages
4. The semantic analysis of source-language text items
5. Hesitation phenomena in the search for potential equivalents
6. Competing potential equivalents

- 7.The monitoring of potential equivalents
- 8.Specific translation principles
- 9.The modification of written target-language texts
- 10.The assessment of the quality of the chosen translation
- 11.Paralinguistic or non-linguistic features (e.g. groaning and sighing)

The above problem indicators seem to provide a fairly natural point of departure for a valid investigation of lexico-semantic problems encountered by the subjects of the study.

However, in the present experiment, Krings' model was used in the analysis of problematic lexical items with some modification. For example, some new indicators, which were observed in the present data, were added and the degree of primacy of some indicators was altered according to the findings of the present data corpus. It also happened that some indicators were excluded (e.g. groaning and sighing) as they were considered too weak to suggest the presence of a translation problem. This is because, as the present data shows, such paralinguistic features can be signs of tiredness and exhaustion on the part of the subject.

Moreover, before the application of these indicators in the identification of translation problems, a distinction was drawn between *explicit* and *implicit* indicators. For example, the investigator can interpret the subject's semantic analysis of a lexical item as an implicit indicator of a problem, whereas the overt statement of a translational problem is to be seen as an explicit indicator. Problem indicators should further be distinguished in relation to their primary or secondary status. In the present study, the subject's statement of the problem, the use of the dictionary, leaving a gap in the translation manuscript, competing equivalents and the semantic analysis of a ST lexical item are used as primary indicators which are sufficient for problem

identification on their own. Secondary indicators, on the other hand, are not sufficient when they occur individually as two or more secondary indicators should be present to allow problem identification. Additionally, individual secondary indicators are used to reinforce primary indicators as evidences of a translation problem.

In addition to the above eleven signs of problematic translations (i.e. Krings indicator model), three problem indicators were added in the present study, namely, the verbatim repetition of a lexical item, leaving alternative variants in the TT (a secondary indicator) and leaving a gap in the ST (a primary indicator). The purpose of the inclusion of these indicators was to allow the experimenter to identify as many problems as possible.

The analysis of the data has revealed that, in the majority of cases, problematic lexical items were identified through the presence of a number of problem indicators. That is, only a few translation problems were identified via one primary indicator. The presence of more than one problem indicator is seen here as an advantage, for it validates the difficult nature of the translation problem.

4.3.2. Stages of problem identification

Concerning the stages of the identification of problems, the analysis of the subjects' protocols has shown that problems were identifiable at all stages of the translation task. The following are the main stages of problem identification:

A. Stage one: Here, problem identification takes place during the preparatory stage of the translation task, e.g. during the initial reading of the ST when smooth reading is interrupted by the subjects' realisation of a translational problem. The identification of the problem is indicated by, for instance, the subject's underlining of the problematic item, the semantic analysis of a certain lexical item, the verbatim

repetition or the explicit and implicit statement of the problem. The subject in this case may try an outright solution to the problem by using a problem-solving strategy, e.g. lexical item retrieval technique (i.e. using his inner dictionary) and the use of reference material, or he may proceed with the reading, thus holding off the use of problem-solving strategies for subsequent stages of the translation task. It is at this stage of the translation process that most of the translation problems are identified. The following is an illustrative example of the first stage of problem identification taken from Zaid's verbalisation:

Example: (1)

... [checking the dictionary] ..؟ بمعنى ثاني dropping ...

... *dropping* means causing something/someone to fall.. could it have a second meaning ?.. [checking the dictionary]...

This example (1) shows clearly that Zaid is encountering a translational problem. This took place during the preparatory stage of the translation when Zaid's smooth reading of the ST was interrupted by his realisation of the presence of a problematic lexical item (i.e. dropping). Here, the identification of the problem was manifested by Zaid's implicit statement of the problem when he expressed his uncertainty as regards the presence of a second meaning which could better fit into the translation context as well as his immediate use of the dictionary.

B. Stage two: The second stage of the identification of translation problems is during the writing phase of the translation process when new problems are identified which passed unnoticed to the subjects at the first stage (i.e. the introductory stage). In this stage, the identification of previously recognised problems is reinforced by the intensive presence of new problem indicators which were absent in the preparatory stage. It is at this stage that the majority of problem solving strategies are applied

with the aim of understanding and rendering the problematic lexical items. Consider the following example taken from Hameed's protocols:

Example (2)

يضرب الطريق؟.. والله استخدمها هنا غريب شوي.. نشوف قاموس القاري...
and hitting the road, hitting the road, hitting the road ...

hit. hit. hit ..لها معنى ثاني.. [checking the bilingual dictionary]

Oxford Advanced يصددم. يضرب. يعثر بطريق الصدفة.. ما فيه شئ هنا يرضي.. نشوف

... [checking the monolingual dictionary]

...and hitting the road, hitting the road, hitting the road.. what is

the meaning of *hitting the road*?.. it is used here in a relatively strange way.. Let's see Al-Qari dictionary [checking the bilingual dictionary] as *hitting* could have a second meaning...

hit. hit. hit.... crash, strike, find by accident.. there is nothing appropriate here...

let's see *Oxford Advanced* [checking the monolingual dictionary]..we could find something better...

Example (2) above is a striking illustration for the occurrence of problem indicators during the main stage of the translation process, namely the writing stage. Here, Hameed introduces new problem indicators (i.e. the statement of the problem, the semantic analysis and the use of dictionary) which were not observed in his first stage of the translation task. The repetition of the problematic idiom (i.e. hitting the road) was also observed as a sign of encountering a translational difficulty in the preparatory stage of the translation but was considered an insufficient problem indicator, for it needed other primary indicators to reinforce its reliability.

C. Stage three: The third stage of the identification of translational problems is observable during the editing phase of the translation process when final solutions are sought for previous lexical problems with interim solutions. In this stage, it is

noticeable that only a small number of problems are identified through the presence of new problem indicators which were not present in the first or second phase of the translation task, e.g. a gap in the TT, two or more TT competing equivalents, or a negative evaluation of a given TT lexical item. The following is an illustrative example for the presence of new problem indicators at the editing stage of the translation process, taken from Hasan's protocols:

Example (3)

... ST .. ما أدري وش معناه صراحة لكن ...
 أبغني أقرأ القطعة كلها ثم أبحث عن معناها...
 صراحة طلعت الترجمة عندي meaningless لكن أبغني أحاول اعمل لها rewriting لكي
 يكون المعنى قريب...
 ال abbreviation اللي ما أعرفها سأكتبها كما هي...
 ...ST.. I don't really know its meaning, but...
 I'll read the whole passage, then search for its meaning...
 Actually, my translation has become *meaningless*, yet I'll make
 a *rewriting* of it so as to get closer to its meaning...
 I'll write the unfamiliar *abbreviations* as they are...

Here in example (3), Hasan at the end of his translation task (i.e. the editing stage), provides a number of problem indicators which were not present in the first and second stage of the translation process. He states explicitly that he is faced with an insoluble problem, namely the abbreviation *ST* that appeared unfamiliar to him. A secondary indicator is also present, i.e. Hasan's negative evaluation of his interim TT version which is manifested by the utterance of the word *meaningless* to indicate his dissatisfaction with the translation. Furthermore, Hasan's decision to leave abbreviated lexical items untranslated is seen here as a strong indication that he is finding them difficult to understand and ultimately to translate into the TL.

4.3.3. Illustrative examples of problem indicators

In this section, the most frequent problem indicators that were observed in the data of the present study will be examined and illustrated by examples taken from the subjects' protocols:

4.3.3.1. The subject's statement of a problem

This indicator encompasses both the explicit and implicit statement of a problem. As regards the subjects' explicit comments on translational problems, they are produced by the subjects as spontaneous utterances in reaction to identifying a translational difficulty, and not in the form of answers to the experimenter's questions on the problems of translation. In other words, the subjects were not asked by the investigator to report verbally the translation problems which they are faced with during their task performance, but rather were instructed to think aloud their thoughts, which when analysed contained a great deal of explicit comments on most of the potentially problematic items.

In the overt statement of the problem, the subject states verbally that he has a problem or difficulty in understanding or rendering a certain lexical item by, for example, using words like *difficult* or *problem*. This type of indicator is easily distinguishable, as it requires no inferencing on the part of the experimenter to detect the problem. The implied statement of the problem, on the other hand, takes the form of implicit comments which suggest that the subject is encountering a translational problem. Very often in such instances, the subject interrupts the smooth flow of his translation processing and engages in searching for solutions to the identified problem. The following excerpts are striking examples of explicit statement of translational problems, taken from Faris's protocols:

Example (4)

... ال TT..ما أدري.. حطينا الاختصارات كما هي وهذا شكلها مشكله...

... the TT..I don't know.. I translated the abbreviations as they are and this seems to be a problem...

Example (5)

... mucocutaneous .. هذي مشكله.. أتوقع إنها تستخدم في المجال الصحي اكثر

mucocutaneous .. [consults the dictionary] .. ما هي موجودة .. ما أدري

ويش معناها صراحة...

...mucocutaneous.. this is problematic ..I think it is more commonly used in the medical field [consults the dictionary].. mucocutaneous.. it is not available .. I really don't know its meaning...

Examples (4&5) are two indicative instances of explicit statements of a translation problem. In these two excerpts, Faris utters a number of plain clues which definitely show that he is faced with problematic lexical items. These clues include “I don't know”, “This seems to be a problem”, and “This is problematic.”

As regards the implicit statement of translational problems, the following are two illustrative examples which contain insinuated indicators for the identification of problematic translation units.

Example (6)

... Vendors .. هذي أول مرة تمر علي...

...vendors.. this is the first time I come across it...

Example (7)

Jail.. get out.. يشلون تجي هنا .. verbal get out of jail card ...

سجن [consults the dictionary] .. ما هي معقول بطاقة لفظية...

... Verbal get out of jail card.. how can we say this here.. get out leave.. Jail prison..[consults the dictionary]..it's not possible to say verbal card...

Although Thamir doesn't state verbally that he is facing a translational difficulty (e.g. doesn't use words like *difficult* and *problem* as in examples (4&5)), the underlined expressions in (6&7) suggest implicitly the presence of a translational problem. That is, the underlined utterances are implied indicators for the identification of problematic translation units.

4.3.3.2. The use of reference material

The subjects' use of reference material (e.g. the dictionary) is an easily recognisable problem indicator. As indicated in the analysis of problem-solving strategies (see table 5.1), the use of a dictionary is by far the most frequent strategy which the subjects employ to solve translational problems. What should be noted here is the fact that the subjects' implementation of problem-solving strategies implies by necessity the presence of a translational problem. Thus, the analysis of the present protocol data has revealed that the use of dictionary is the most frequent problem indicator.

In the majority of cases, the use of a dictionary occurs with (or follows) other problem indicators, e.g. the subject's statement of the problem or the repetition of a certain lexical item. The following are two examples of dictionary consultation, which indicate the presence of a translation problem, taken from the protocols of Hameed and Zaid, respectively:

Example (8)

... bequeathed .. هذي غريبة علي.. خلينا نشوف Advanced Oxford على طول

لأني أتوقع اني أجد المعنى فيه.. [consults the dictionary] ...

... *bequeathed* .. this looks strange to me.. let's now check *Oxford Advanced* because I expect the meaning to be there.. [consults the dictionary]...

Example (9)

.. ما هي [consults the dictionary] Webster خلينا نشوف .. SL .. SL ...
... موجودة .. نشوف Oxford [consults the dictionary] SL..SL .. ما فيه ...
...SL..SL.. let's check *Webster* [consults the dictionary] .. it is not
here.. let's see *Oxford* [consults the dictionary] .. SL..SL there is
nothing here...

In example (8) above, Hameed's consultation of the dictionary is considered a primary indicator for the presence of a problematic translation unit. Here it is evident that the dictionary is used as a problem-solving strategy with the aim of finding the potential meaning for an apparently unfamiliar word (i.e. bequeath). The status of the use of a dictionary (as a strong problem indicator) is further strengthened by the presence of another primary indicator, namely Hameed's statement of the problem when he comments: "this looks strange to me."

Example (9) is also another instance of identifying translation problems through the use of a dictionary when Zaid attempts to find a solution to what appears to be a comprehension problem. Here again, a secondary problem indicator (i.e. the verbatim repetition of a potentially problematic lexical item) accompanies the use of the dictionary, accordingly adding to its validity. These two examples show how the dictionary acts as a sign for a translational problem, since it reflects the subject's inability to proceed with the translation until the problem is dealt with.

4.3.3.3. Leaving gaps during the translation process or in the TT

Leaving gaps in the translation is seen in the present study as a strong indication that the subject is encountering a translational problem. As observed in the present protocol data, quite often, the subjects leave potentially problematic lexical items untranslated for a while and proceed with the translation so as to have some feedback

at later stages of the translation. A similar behaviour is noticeable in Jaaskelainen's study (1990:186) as her subjects only leave gaps in the translation when they encounter a problem; that is they leave some problems unsolved for a while as evidenced by utterances like "I will think about it later" or "I'll leave it for a while."

The presence of a gap in the translation manuscript (i.e. *TT*) is also a fundamental indicator of a translation problem. The following are two examples of leaving gaps during the translation process and in the finished product of the translation:

Example (10)

... TT... .. ما أدري ويش معناها.. حط فراغ وبعدين نترجمها...

... *TT* ..I don't know what it means.. I'll leave a gap then translate it later...

Example (11)

ST: At the extreme of TL bias is completely free translation, where there is only a global correspondence between the textual units of the ST and those of the TT.

TT : وفي النهاية الأخرى لحيز اللغة ----هناك الترجمة الحرة كلية حيث يوجد توافق تام بين

وحدات النص في نفس التركيب وتلك في ----

Back-translation: At the other end of ----language side, there is the completely free translation where there is a complete correspondence between the text units in the same structure and that in ----

In example (10) Zaid's comment: "I'll leave a gap then translate it later" is a clear indication that he is finding it difficult to translate the abbreviation *TT*. This problem-solving decision took place during the writing stage of the translation task. Another evidence of the problematic nature of the abbreviation *TT* is recognisable in the subject's explicit statement of the problem (i.e. I don't know its meaning). The complementary presence of these two primary indicators is a common occurrence in the subjects' protocols.

Example (11) on the other hand, is an illustration of leaving a gap in the translation manuscript. Here, at the end of the translation task, Hameed abandons the employment of any problem-solving strategy for what appear to be problematic abbreviations (i.e. TL, ST, and TT) and decides to leave gaps in his finalised translation. Hameed's decision to leave some lexical items untranslated is considered as a primary indicator of the presence of a translational problem.

4.3.3.4. Competing potential equivalents

Although the production of competing translation variants is included among the secondary indicators in Krings (1986), it is considered to be a primary indicator in the present study. This is because the analysis of the protocol data revealed that when the subjects produce more than one tentative equivalent (i.e. during the translation process) they tend to engage in a number of problem-solving strategies (e.g. the use of dictionary and the strategy of inferencing) with the aim of deciding on the most appropriate equivalent. Leaving alternative variants in the translation manuscript is also regarded as a strong problem indicator as it displays the subject's uncertainty as regards the appropriateness of the competing ST equivalents. This finding is corroborated by Jaaskelainen's study (1990:187) when she points out that "leaving alternatives in the translation manuscript seems to indicate the presence of unsolved problems." Example (12) below illustrates the production of tentative equivalents during the translation process, whereas example (13) shows the production of alternative variants in the translation manuscript:

Example (12)

..الظاهر إنها جمع نية أو إرادة وإلا لا.. إرادة .. أعتقد .. لكن لا بد

أن نعرف المعنى القريب ...

ما عرفته.. لكن المعنى القريب لها يريد. يشاء. نتمنى أن يكون الأمر كذلك [checking the dictionary].. يوصي إرادة. تصميم. قوة. إرادة. ليس له إرادة مستقلة. إرادة. تصميم عزيمية. الرغبة. حسن نية. غالبا وصية...

[battle of wills]... *wills*.. it is apparently the plural of intention or wish isn't it.. wish.. I think.. but we should know the appropriate meaning...

I don't know it.. but the closest meanings are wish and desire.. I hope it is so [checking the dictionary].. bequeath.. wish.. determination.. power.. wish. he has no independent wish.. wish.. determination.. resoluteness.. desire.. good intention.. it often means a testament...

Example (13)

... عدم الاتصال "عدم الترابط" هي واحدة من الكلمات المفضلة لدي...

...miscommunicating, "disjoining" is one of my favourite words...

As shown in example (12), Hasan is struggling to find a translation equivalent for the lexical item *will*. This is apparent in the various tentative equivalents which he produces in an attempt to decide on the most appropriate one. Hasan's utterance of a number of competing equivalents is seen here as an indicator of a translational problem. That is, Hasan's hesitation as regards the choice of one TT equivalent is undoubtedly a sign that he is faced with a problematic lexical item.

After Hasan's implementation of a number of problem-solving strategies in his effort to settle on one TT equivalent, he, yet again, settles in his final translation on two competing equivalents, one of which was never mentioned in the writing stage (i.e. أعصاب (nerves)(see table 6.7). Thus, leaving two competing TT equivalents in the translation manuscript is considered as another problem indicator which substantiates the problematic nature of the term *wills*, whose difficulty was first identified through the tentative production of competing translation equivalents in the writing stage.

Example (13) is another example of producing two competing TT equivalents in the translation manuscript. Here, Khalid translates the word “miscommunication” with relatively irrelevant TT equivalents which is an apparent indication that he is encountering a comprehension problem as well as a production problem, i.e. deciding the intended meaning of the lexical item. Hence, Khalid’s production of two different translations in the finished TT is seen here as a primary indicator of the problematic nature of the lexical item “miscommunication.”

4.3.3.5. The semantic analysis of a ST item

Semantic analysis of a ST item is also regarded in the present study as a sign for the presence of a translational problem. This takes the form of semantically analysing an unknown or vague lexical item with the objective of clarifying its meaning. That is, the problematic lexical item is analysed by using, for instance, a synonym or an explanatory phrase, as in the following excerpt from Zaid’s protocols:

Example (14)

... الذي هي بيولوجي علم الأحياء ... bio .. When my father was a biomedical ...
 Oxford قاموس الأحياء .. لا .. نشوف قاموس medical
 الإلكتروني ...
 ...when my father was a biomedical.. bio is biology.. the science of
 biology...
 medical.. means a physician ..it could be the biology doctor ..no..
 let’s see the *Oxford* electronic dictionary..

As shown in (14) above, the presence of a translational problem is indicated by the subject’s interruption of his smooth translation with the aim of clarifying what seems to be a problematic lexical item (i.e. biomedical). That is, Zaid’s semantic analysis of the term *medical* is a clear indicator of its problematic nature. This primary indicator (semantic analysis) is coupled with another indicator, namely the use of dictionary,

which, of course, is another evidence that Zaid is encountering a translational problem.

4.3.3.6. Negative evaluation of produced equivalents

The negative evaluation of a produced translation is considered in the present study as a secondary indicator of the presence of a translation problem. As is the case with other weak indicators, it is used only to verify other problem-indicators, as it is an insufficient evidence of a serious translation problem on its own. This indicator, nevertheless, seems to reflect the subject's dissatisfaction and sometimes uncertainty over a chosen TT equivalent. As the present data shows, the status of the negative evaluation as an indicator of a problem is often authenticated by the subsequent application of a problem-solving strategy which occasionally is followed by an alteration to the chosen translation. An illustrative example of a negative evaluation of a chosen translation is found in Zaid's protocols, as in the following excerpt:

Example (15)

... TT .. ممكن نقول teacher language .. لا.. السياق ما يسمح...
... TT .. we can say *teacher language*.. no.. this is contextually wrong...

In (15) above, Zaid produces a tentative translation which he subsequently rejects on the grounds that it does not suit the context of the translation as a whole. His negative evaluation of the chosen translation seems to suggest that he is encountering a problematic lexical item. In the editing stage of the translation, therefore, Zaid opts for another faulty TT equivalent, thus providing another clue for the problematic nature of the abbreviation, TT.

4.3.3.7. The hesitation phenomenon

This is a secondary indicator of a translation problem which is detected when a subject produces a TT equivalent but utters some words that indicate his uncertainty as regards the meaning of the translated item. In this case, it is a common occurrence that the subject engages in a problem-solving strategies (e.g. the use of dictionary and contextualization) to ensure the appropriateness of the chosen TT lexical item. An indicative example of this is found in Hameed's protocols, as in the following excerpt:

Example (16)

...[those restless souls] ..souls ..أرواح مثلا ؟ ...

نشوف قاموس القارئ..ممكن لها معنى ثاني...

...[those restless souls] .. *souls*.. spirits for example?...

let's see the Al-Qari dictionary.. we could find a second meaning for it...

In (16) above, Hameed's hesitation to settle on his tentative TT equivalent أرواح (spirits) is seen here as an indication of the presence of a translation problem. The problematic nature of the word *soul* for Hasan is further manifested by the presence of another problem indicator, i.e. the use of dictionary, which the subject uses to assure the suitability of his proposed TT equivalent.

4.3.3.8. The verbatim repetition of a ST lexical item

This is another secondary problem indicator that was commonly present in the subjects' data protocols. Although this is not enough evidence for a serious problem, it nevertheless serves as a starting point for the identification of problematic lexical items. This is because, as observed in the present data, this indicator is repeatedly followed at different stages of the translation process by one or more primary

indicators (e.g. the use of the dictionary) with the objective of finding solutions to the translation problem. A clear example of this is found in Hasan's protocols as in the following excerpts:

Example: (17)

...؟VA..VA..VA معناها..ويش معنى VA ...

...VA.. it means.. what does VA.. VA..VA mean?...

In example (17), it seems that Hasan is encountering a translational problem. This is evidenced in his repetition of the abbreviation *VA* which seemingly interrupted the smooth flow of his reading of the ST. The problematic nature of the repeated item is further indicated by the subject's recurrent use of problem-solving strategies (e.g. inferencing and consulting the dictionary) in an attempt to understand its meaning. Subsequently, however, all the problem-solving strategies which the subject employed proved unhelpful and the result was leaving the abbreviation *VA* untranslated, thus providing a primary problem indicator (i.e. leaving a gap in the translation manuscript)

The examples presented above, demonstrate clearly the possibility of identifying translation problems through the application of a problem indicator model.

Accordingly, one can say with some justification that the use of the above problem indicators, would allow, if applied systematically, a reliable account of the translation problems which the subjects of the study encountered.

4.4. Translation problems: qualitative analysis

4.4.1. Degree of difficulty

As mentioned earlier, translation problems emerge when spontaneous translation processing is interrupted by the identification of a problematic translation unit. These

problems, however, seem to differ considerably in terms of their level of difficulty. In the present study, for example, translation problems were found to fall roughly into one of the following categories.

1) Easily-solved translation problems: They include problematic translation units whose difficulty was resolved instantly by the application of one problem-solving strategy. These include, for example: a) unfamiliar lexical items whose meaning is instantly obtained through the use of a dictionary, b) partly familiar lexical item whose meaning is immediately obtained through the use of one problem-solving strategy (e.g. memory search (lexical retrieval), repetition of the problematic item, or instant use of the dictionary), and c) familiar ST lexical items with two potentially appropriate TT variants whose translation equivalence is determined after the application of one strategic activity, such as the use of a dictionary, intuitive judgement, or contextualization. These types of problems are usually dealt with in the primary stage (initial reading) of the translation process. The following are illustrative examples of some solved translation problems, taken from Zaid's protocols.

Example (18)

..[checking the dictionary]..؟ symptoms ويش معنى symptoms ...

أيوه.. عرض مرضي... وهذه الأعراض نادرة الحدوث...

... *symptoms*.. what does *symptoms* mean?..[checking the dictionary].. Oh yes.. a sign of sickness.. these symptoms are rare...

Example (19)

global correspondence.. global correspondence.. globe.. عالم.. نشوف نجي بمعنى آخر وإلا
لا .. [checking the dictionary] .. أيوه .. of the whole world .. عالمي طيب ..
عالمي .. شامل .. أيوه شامل ...
... *global correspondence*.. worldly correspondence.. *globe*.. world..
I'll see if it has another meaning [checking the dictionary].. oh yes.
of the whole world.. worldly.. Oh yes it's comprehensive...

In example (18) it is evident that Zaid is encountering a problematic lexical item, i.e. *symptoms*. In this instance, the subject states implicitly that he is faced with a translational problem by commenting: “what does symptoms mean.” Zaid instantly finds a TT equivalent for the problematic lexical item *symptoms* by simply referring to the dictionary.

Example (19) on the other hand, shows that Zaid is encountering a translational problem which has resulted from a lexical item with polysemous meaning (two potential TT equivalents). The subject's partial knowledge (i.e. knowing one meaning) of the problematic word is expressed by his comment: “I'll see if it has another meaning.” In order to find a solution to this translation problem, Zaid resorts to the dictionary where he finds another potential Arabic equivalent for the lexical item *global*. After consulting the dictionary, the subject successfully settles on the most appropriate TT equivalent for the problematic ST item.

2) Hard-to-solve translation problems: They include those problematic lexical items whose difficulty ends after the application of a number of problem-solving strategies. That is, in dealing with these problematic lexical items, the subjects engage in a recurrent application of different types of strategic activities with the aim of bringing about a solution to these difficulties. Problems of this category include, for example, those unfamiliar lexical items which have contextual, connotative, or

figurative associations, among other features. In dealing with such problematic items, therefore, the meaning is not always obtained by merely checking the dictionary, but also by means of applying further translation strategies, such as inferencing and contextualization.

As the analysis of the data shows, the translation equivalence for this type of problematic lexical items is achieved in the writing stage of the translation process and occasionally in the editing stage. The following is an example of a hard-to-solve translation problem taken from Zaid's protocol:

Example: (20)

...Halloween ... لازم نقرأ النص... قاموس Oxford الإلكتروني ويش يقول ..
the 31 of October when children dress .. [checking the dictionary]
..up and play practical jokes on neighbours .. عشية عيد جميع القسيسين بالعبوي ..
..Halloween.. Halloween.. [checking]Webster طيب نشوف
..Halloween the evening of October .. نشوف المرادفات.. Easter.. نقرأ النص
أحسن [reading] .. مشكلة يمكن هذي ثقافة من ثقافة.. خاصة إن Readers' Digest
أمريكية.. نتركها ونرجع لها بعدين...
الحالوين حفلة تقام في ٣١ أكتوبر كعيد للأطفال...
...Halloween.. we should read the text.. what does Oxford electronic
dictionary say[checking the dictionary].. the 31 of October when
children dress up and play practical jokes on neighbours.. in Arabic
the night of 'All Saints Day'.. Ok, let's see Webster [checking]..
Halloween.. Halloween.. Halloween.. the evening of October.. let's
see the synonyms.. Easter.. I'll read the text [reading].. this is a
problem as it could be a part of culture.. especially as Reader's
Digest is American.. I'll leave it and come again later...
Al Halloween is a children festival on the 31st of October...

Example (20) is a good illustration of a translation problem whose solution required extended effort and time, as well as the employment of a number of problem-solving strategies. Here, upon reading the lexical item *Halloween* for the first time, it became apparent to Zaid that his knowledge of the meaning of this word was not sufficient to proceed with the translation. He therefore tried to extend his understanding of *Halloween* by implementing problem-solving strategies, such as the recurrent use of both bilingual and monolingual dictionaries, leaving a gap in the translation for a while, and the use of world knowledge (i.e. "it could be a part of culture.. especially as Reader's Digest is American"). Thus, as observed in Zaid protocols, in dealing with the problematic lexical item *Halloween*, he did a lot of backtracking which lasted for more than twenty minutes until he finally came up with an appropriate TT equivalent.

3) Unsolved translation problems: They include those lexical items which were so problematic that their difficulty was not overcome even after the application of problem-solving strategies. That is, the translation problems caused by these lexical items proved insoluble even after using problem-solving techniques with the aim of bringing about a solution to these problems.

When faced with such translation problems, the subject may a) leave the ST lexical item untranslated (i.e. he leaves a gap in the translation manuscript), b) resort to producing a "hit-or-miss" TT equivalent, or c) unknowingly produce an inaccurate TT equivalent which he wrongly thinks is a solution to the translation problem.

Thus, with these types of seriously problematic items the subject's failure to find an appropriate TT equivalent may affect the quality of the whole translation. The following are three examples of unsolved translation problems taken from the protocols of Thamir (21), Hameed (22), and Khalid (23), respectively:

Example: (21)

[Verbal get out of jail card]

..get out..لفظي..verbal..كلامي.. get out of jail card ..وشلون تجي هنا..
يخرج..jail..سجن.. verbal ..[consults the dictionary]..not written..ما هي
معقولة بطاقة لفظية للخروج من السجن.. مشكلة الexpressions ذولي حتى لو عرفت معنى كل
كلمة المعنى كله ما أقدر أجيبه.. والله ابي ما أدري عجزنا عنها.. ما هنا إلا نخليها.. وش نسوي لها؟...
...verbal.. oral.. verbatim.. get out of jail card.. how can we say
that.. get out.. leave.. Jail.. prison.. verbal..[consults the
dictionary]..not written.. it is not logical to say verbal card to get out
of jail.. the problem of these expressions is that even if I know
every word, I can't get the whole meaning.. I really don't know, I
can't get it.. we better leave it.. what shall we do with it?...

Example: (22)

VA.VA.. [consults the dictionary]VA...
...VA
طيب ممكن تكون vehicle accident..يعني مستشفى حوادث السيارات...
...VA[consults the dictionary] .. VA.VA I think I'll get nothing from
it.. there is no VA...
OK, it could be vehicle accident.. that is cars accident hospital...

Example: (23)

[Rare is the American who has not dreamed of dropping what he is
doing and hitting the road.]
Rare... يعني نادر على حسب معرفتي [consults the bilingual dictionary]
..نادر..غير عادي.. رقيق...
..Rare ..[consults the monolingual dictionary] ..ما يصير نادر..أتوقع انه اسم
أتوقع انه اسم شخص .. يعني نقول Rare هو أمريكي...
...Rare.. to my knowledge means scarce [consults the bilingual
dictionary]..scarce. unusual .sensitive...

[consults the monolingual dictionary]..It can't be scarce.. I think it is a name.. *Rare*.. I think its somebody's name.. so we can say *Rare* is an American...

(21), (22), and (23) above are three obvious illustrations of unsolved translational problems. In (21) for example, Thamir is apparently encountering a translation problem, i.e., translating the expression “get out of jail card”. After recurrent attempts to find an Arabic equivalent through the employment of different problem-solving strategies at different stages of the translation process, Thamir begins to realise the insolubility of this translational problem. Accordingly, he decides not to produce any TT equivalent and to leave a gap in the translation manuscript. He, therefore, utters a decision to this effect: “I don't know I can't get it.. we better leave it.. what shall we do with it?.” In (22) on the other hand, Hameed provides a haphazard TT equivalent after he realises the insolubility of the problematic abbreviation *VA*. That is to say, When Hameed recognises that it is difficult to find a TT equivalent for the abbreviated lexical item *VA*, even after consulting the dictionary which proves unhelpful, he wrongly opts for a random Arabic equivalent.

As for (23), Khalid is clearly finding it difficult to decide on what seems to be two appropriate TT equivalents for the word *rare*. In order to overcome this problem, he consults both the bilingual and monolingual dictionaries so as to ensure the correctness of his choice. Unfortunately, without realising, Khalid fails to solve this translational problem by choosing the unfitting TT equivalent, thus resulting in an odd translation.

Thus, based on the analysis of the above examples which illustrate different scales of translational problems, one can say that, in sum, problematic items differed dramatically in their degree of difficulty. That is, while some translation problems required only the application of one problem-solving strategy to arrive at the potential

equivalents (easily-solved problems), other problematic lexical items required more than one problem-solving strategy (hard-to-solve problems) so as to achieve equivalence. In other cases translation problems proved insoluble even after the employment of a number of problem-solving strategies

Based on the analysis of the problems of translation in the present study, we may say that three factors may determine the degree of difficulty of a problematic lexical item: a) the nature of the lexical item (e.g. technical and figurative units), b) the subject's level of proficiency (e.g. the subject's inadequate proficiency may lead him to having difficulty in translating even potentially unproblematic lexical item), and c) the subject's skill in employing problem-solving strategies.

4.4.2. Types of translation problems

As was mentioned earlier, dealing with problematic lexical items constituted the largest part of the subjects' verbalised processing. The subjects spent most of their time in recurrent attempts to bring about solutions to the translation problems which they encountered during the process of translating. In this part of the study, a qualitative account of the most common translation problems found in the data will be presented with illustrative examples taken from the subjects' protocols. Examining individual translation problems, on the other hand, will be dealt with quantitatively in section 4.6.

The analysis of the subjects' protocols has revealed that translation problems, which the subjects of the study encountered during the process of translating, were of two types:

- a) **Comprehension problems:** refer to those ST lexical items whose meanings were found to be difficult to understand for the subjects of the study. As the data of the

present study shows, these problematic lexical items include a) totally unfamiliar ST words whose meaning is completely absent from the subject's mind, b) familiar words that are used in an unfamiliar context to the subjects; that is the problematic lexical item is a polysemous one and the subject's knowledge of this item is confined to one meaning, e.g. figurative lexical items which are used in a situation unknown to the subject, and c) partly familiar ST lexical items whose meaning is temporarily absent from the subject's mind in which case a memory search is conducted so as to retrieve its meaning, or a dictionary is consulted. This finding corroborates a relatively similar result reported in Kussmaul's comprehensive study (1995) on the process of translation, as observed in the protocols of non-professional subjects:

There can be several reasons for interruptions in the comprehension process.

Firstly, and perhaps most commonly, it may happen that when translating from the foreign language we come across a word which we do not know at all and the meaning of which is not clear from the context. Secondly, we may seem to know the word, but its meaning in the specific context is not known to us. Thirdly, a word may be used in a highly idiosyncratic way by the author, and finally, a word may seem not fit into the context at all. (Kussmaul 1995:86).

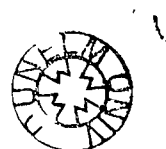
Examples of these three types of comprehension problems can be found in the following excerpts taken from the subjects' protocols:

Example: (24)

.. [consults the bilingual dictionary] والله هذي أول مرة تمر علي vendors ...

[consults the monolingual dictionary] .. غير موجودة.. نشوف قاموس الإنجليزي..

... seller ..vendor..



...vendors.. really, this is the first time I come across it [consults the bilingual dictionary].. it is not available.. let's see the English dictionary..[consults the monolingual dictionary]..*vendor*.. *seller*...

Example: (25)

drop.. dropping..who has not dreamed of dropping ...

يسقط..dropping..يعني..يعني.. الذي لم يحلم ..of dropping..بالسقوط....

...*who has not dreamed of dropping*.. *dropping*.. *drop*.. fall..
dropping.. it means.. it means.. who has not dreamed.. *of dropping*..
of falling...

Example: (26)

...corresponding...هذي كلمه كل يوم تمر علي.. يا ساتر..

كل يوم تمر هذي الكلمة ونساها.. [consults the dictionary]...

...*corresponding*.. Oh my God.. I come across this word every day..
every day I see this word and forget it..[consults the dictionary]...

In (24), (25), and (26) above, it is obvious that the subjects are encountering different types of comprehension problems. In (24) it is apparent that Thamir is faced with a problematic lexical item that is totally unfamiliar to him. This is evident in his comment: "this is the first time I come across it." To solve this problem, Thamir instantly resorts to the dictionary with the objective of finding the meaning for this problematic unit, thus showing a typical behaviour of the subjects when encountering totally unknown lexical items during the process of translating. (25) on the other hand, is an illustration of encountering a comprehension problem of familiar word which is used in what seems to be an unfamiliar context to the subject. Here, upon reading the ST first sentence (Rare is the American who has not dreamed of *dropping* what he is doing and hitting the road), Khalid starts to repeat and semantically analyse the word *dropping* and the result is an erroneous translation, i.e. سقط (falling). That is, Khalid conceived the word *dropping* as falling (a familiar meaning to the subject)

and failed to realise its polysemous nature, as it is used in the present text in an unfamiliar context to the subject (i.e. leaving). As for (26), it is a revealing example of a comprehension problem caused by a partly familiar word. Faris states explicitly that the word *corresponding* looks somewhat familiar to him (i.e. “everyday I see this word and forget it”) but he is finding it difficult to remember its meaning at the moment. Therefore, after the application of a memory search technique for this problematic item, he decides to use the dictionary so as to find its TT equivalent.

b) **Production problems:** refer to those lexical items which the subjects found difficult to render into the TL. In the present study it was found that, in all cases, production problems are the result of unsolved comprehension problems. That is to say, the presence of unsolved comprehension problems implies by necessity the presence of production problems. Thus, the analysis of the protocols has revealed that when the subject is faced with an insoluble comprehension problem he is bound to have a production problem. One major reason for not having production problems alone (i.e. not resulting from comprehension problem) is because the subjects of the study are translating into the native language which they can manipulate once they have comprehended the meaning of a given SL lexical item. In translating into the foreign language, by contrast, the subjects are expected to have production problems with a given lexical item without necessarily having a comprehension problem with that word. This is because, although the subject understands the meaning of a certain ST item, he may fail to find the appropriate TT equivalent, due to an inadequate competence as regards the foreign language vocabulary. It is also the case that in translating into the foreign language, non-professional translators (e.g. the subjects of the study) are expected to have more production problems than comprehension problems because of the potential lack

of competence in the foreign language as opposed to an optimal proficiency of the mother tongue. This is in line with previous TAP studies, e.g. Borsch (1986) who concludes that:

In the case of translating from the foreign language into the mother language problems of understanding will be predominant, including strategies of how to get access to the meaning of unknown words or certain sentence structures etc.. The other direction of translation may pose predominantly retrieval problems. (Borsch 1986:208)

Krings' study (1986) also revealed that subjects were primarily faced with production problems when translating into the foreign language and with reception problems when translating from the foreign language.

4.5. Lexico-semantic problems: qualitative analysis

In the present study, comprehension and production problems were found to be predominantly caused by potentially problematic lexical items. Therefore, in this section of the study the most serious types of problematic lexical items, which the subjects found difficult to understand or translate, will be investigated with illustrative examples from the subjects' protocols:

4.5.1. Cultural lexical items

The analysis of the subjects' protocols has shown that cultural lexical items pose a serious translation problem. A striking example of this is the lexical item *Halloween* which proved difficult to translate for all subjects (with the exception of Omar who made no attempt to translate the word *Halloween*). The seriousness of the difficulty of such cultural lexical item is manifested by the lengthy search by all subjects for the potential meaning of this item and its Arabic equivalent. Even Zaid, the most

competent subject in the overall quality assessment (the top of his class with an excellent grades average), spent over twenty minutes in dealing with the word *Halloween* in an attempt to find an Arabic equivalent that would sound understandable to the target audience. Thus, after the recurrent application of problem-solving strategies (e.g. use of dictionary and inferencing) he opted for a transliteration of Halloween (i.e. هالوين) which he found in the bilingual dictionary and added a descriptive statement with the aim of clarifying its meaning for the Arabic readership, as in the following example taken from Zaid's protocols:

Example: (27)

...الHalloween "الخالوين" حفلة تقام في ٣١ أكتوبر كعيد للأطفال يلبسون الجديد ويمثلون أعمالاً
نكتيه وطرائف على الجيران...

...the *Halloween*" Alhalween" a party that takes place in 31 October as a children festival when they wear new clothes and perform practical jokes on neighbours...

A further evidence of the difficulty of cultural lexical items (e.g. Halloween) is found in some subjects' explicit comments on the problematic nature of cultural units. The following comments are taken from some subjects' verbalisations when dealing with the cultural item *Halloween*:

Example: (28)

Reader's Digest الHalloween.. مشكلة.. يمكن هذي ثقافة من ثقافة.. خاصة ان ال
أمريكية...

...Halloween.. it is a problem.. this could be a part of culture.. especially because the *Reader's Digest* is American...

Example: (29)

Halloween... .. Halloween ان اعتقد ان terms من ال terms التي نواجه فيها صعوبة لأنها تعتمد

على الخلفية الثقافية.. لا بد أن أبحث في قاموس القارئ .. قاموس القارئ أعتقد انه ذاكر الكلمة هذي..

ولكن يتتابني شعور اني لن أجد معناه لأنه مصطلح ثقافي...

...*Halloween*... I think that *Halloween* is one of the *terms* with which we encounter a problem because it is dependant on the cultural background.. I should consult Al-Qari dictionary.. I think this word is available in Al-Qari dictionary.. but I have the feeling that I will not find its meaning because it is a cultural term...

As shown in Example (28) and (29) above, both Zaid and Hasan state verbally that they find it difficult to render into Arabic the lexical item *Halloween* because of its cultural connotation. In other words, the subjects' sensitivity towards the potential difficulty of cultural lexical items is evident in their overt statements of the problem, i.e. "it is a problem.. this could be part of culture", "a problem because it is dependent on the cultural background", and "I have the feeling that I will not find its meaning because it is a cultural term."

4.5.2. Collocational lexical items

As was observed in Kussmaul study (1995:21, 34), a common feature of semi-professional translators (e.g. translation trainees) is to know one meaning of a word which has a number of potential meanings. That is, they internalise the most common meaning of the word but not all of its potential meanings which vary according to the text in which this lexical item occurs. The semantic explanation for this phenomenon, Kussmaul maintains, is that such words are polysemous which often cause language learners (and non-professional translators) to make errors. This is because it can happen that the basic meaning of a word is so dominant that it blots out the context

completely, or that the context is experienced in such a personal way that it completely overshadows the meaning of a word that ought to have been activated. This observation is validated by the findings of the present study as a great number of translation problems (and errors) were caused by polysemous words which were used in a context unfamiliar to the subjects because they knew only one meaning of the word in question which didn't make sense in the TT. As the present data shows, problematic polysemous units can take the form of a simple collocation, an idiom or a figurative use of a set of words.

A good example of a problematic collocation that all the subjects of the study found difficult to translate is *global correspondence* (the ST reads: "At the extreme of TL bias is completely free translation, where there is only a global correspondence between the textual units of the ST and those of the TT"). Here, *global* is a polysemous word which has two potential Arabic equivalents, i.e. عالمي (worldly) and عام (general), and is used in the present text to mean *general*. As the protocols show, the difficulty with this polysemous item lies in the fact that for the majority of subjects the only meaning of *global* that is available in their memory is عالمي (worldly) and that the other meaning of *global* which is used in the present text is unknown to them. Consequently, the diversity in meaning of this polysemous word resulted in producing an erroneous translation by some subjects who opted for the only Arabic equivalent available to them (عالمي) without giving much consideration to the context of the TL, thus producing a mismatched Arabic collocation (e.g. تطابق عالمي بين الوحدات النصية = worldly correspondence between the textual units)(cf. Chapter 6). However, after the application of problems-solving strategies (i.e. consulting the dictionary and contextualization) some subjects managed to solve this problem when they

subsequently succeeded in providing the right collocation in the TT (i.e. تطابق عام بين النصية = general correspondence between the textual units).

Another source of translation problems that relate to collocation is idioms, i.e. phrases whose meaning cannot be deduced from their individual components. A striking example of this is the idiom *hit the road* which was a troublesome for all subjects. Although the subjects of the study knew its individual constituent lexical items, they also realised that these familiar words were collocated in a way that was unfamiliar to them. Here, *hit the road* is used figuratively to mean *start to travel*, a meaning which the majority of the subjects failed to realise even after the employment of problem-solving techniques (e.g. the use of a dictionary). What added to the insolubility of this problem is the fact that none of the bilingual and monolingual dictionaries consulted by the subjects of the study gave easily obtainable information on this idiom. Only two subjects managed to find the definition of this idiom in the monolingual dictionary after a long search. Such a high percentage of unsuccessful dictionary search shows clearly how inadequate dictionaries may be in providing information on different types of collocations (cf. Chapter 5).

That is, the analysis of the data has shown that idioms were among the most serious translation problems as evidenced by the fact that only two subjects were able to provide relatively acceptable TT equivalents for *hit the road*. The remaining eight subjects, on the other hand, conceived the message of this idiom by taking the meaning of its words one at a time, consequently producing odd translations that negatively affected the overall quality of their translations (cf. Chapter 6).

Prepositional and phrasal verbs were also problematic collocations for the majority of subjects, although to a lesser degree in comparison with idioms. Quite often,

translation problems of such items were resolved once subjects resorted to the dictionary, which proved helpful in the majority of cases.

4.5.3. Abbreviated lexical items

The analysis of the protocols has shown that abbreviations were a major source of translation problems for all the subjects of the study. Those abbreviations (i.e. VA (Virginia State), SL (source language), TL (target language), TT (target text), and ST (source text)) were assumed to be familiar at least to some of the subjects, especially the abbreviations that are related to linguistics and translation, the subjects' major area of study. Surprisingly, all abbreviated items turned out to be problematic to all subjects including Zaid, the most proficient subject (c.f. example (30) below). In the majority of cases, problems caused by abbreviations were found to be predominantly insoluble for most of the informants, even after the recurrent use of the dictionary, the most popular and successful problem-solving strategy according to the findings of the present study. It is also the case that in dealing with abbreviation problems, dictionaries (both bilingual and monolingual) proved unhelpful in the majority of instances as subjects failed to find abbreviated TT equivalents in those reference materials, except on a few occasions. Thus, the insolubility of problems caused by abbreviations had an enormous effect on the quality and number of translation errors for the majority of subjects who, with little success, spent quite some time pondering how to translate these items, consequently producing erroneous translations (c.f. Chapter 6).

Once the subjects realised the insolubility of abbreviation problems, especially when the dictionary proved unhelpful, they tended to follow one of the following patterns of behaviour: a) to leave a gap in the translation manuscript without risking the provision

of irrelevant or inappropriate TT equivalents, b) to provide a hit-or-miss equivalent by building on their translation intuition, or c) to transliterate the ST abbreviated item into the TT.

The difficulty in translating abbreviations in the present experiment was manifested by some subjects' irritated reaction towards encountering such items during the course of the translation process (see section 4.7). For instance, Zaid, the most competent subject, produced the following utterances upon reading the abbreviations *TT* and *ST*:

Example: (30)

... where the TTأوه جتنا abbreviations تان..TT...

.. ST..grammatical unit of the ST .. واوك طبعنا.. student translation..ممكن؟..

.. sanitary towel .. [checks Webster's' dictionary] فوط صحية معقول ؟ لا

student translation ما تجي فوط صحية...

..[checks Oxford dictionary].. يقول فوط صحية نسائية.. لا ما تصلح لنا كذا يمكن

student translation صح.. [reads the whole text again]...

صراحة abbreviations .. ما عندنا من الabbreviations إلا الظاهر نصف بالمائة...

... where the *TT*.. oh, here we have *abbreviations* again.. *TT*...

grammatical unit of the ST..*ST* ooh, we got stuck.. *student*

translation perhaps? (checks Webster dictionary) *sanitary towel*..

can it be sanitary towels? No it is *student translation*, it can't be sanitary towels...

[checks Oxford dictionary].. it says female sanitary pads.. no it can't be right *student translation* could be correct..[reads the whole text again]...

Really *abbreviations*.. we apparently know only a small number of *abbreviations*...

In (30) above, it is obvious that Zaid is disturbed and annoyed by the presence of abbreviated lexical items. This can be seen in his remarks: “oh, here we have abbreviation again... ooh, we got stuck.. we apparently know only a small number of abbreviations.” This excerpt is also an indicative example of the inadequacy of some dictionaries as regards providing definitions for abbreviations. Here, the dictionaries consulted by Zaid provided some misleading information on the abbreviation *ST* (i.e. sanitary towel), which if used would result in an odd translation. Zaid in this instance displays some wary behaviour towards such definitions by instantly rejecting the unit *sanitary towel* on the grounds that it does not fit into the context, and depends on his translation intuitions to provide a hit-or-miss TT equivalent (student translation) which unfortunately turns out to be inappropriate.

Another revealing example of subjects’ irritated reaction when encountering abbreviations (and cultural words) in a translation task is summed up in the following excerpt taken from Hasan’s protocols, who displays an awareness of the problematic nature of such lexical items in translation:

Example: (31)

الabbreviations..VA.VA.VA...مشكلتها نواجه منها مشاكل..كذلك

الabbreviation وال cultural terms هذه نواجه منها اكثر المشاكل نحن الطلاب العرب...

...VA.VA.VA.. the abbreviations pose problems for us.. also the abbreviations and cultural terms cause most of the problems for us, the Arab students...

Thus, it is fairly safe to say that the subjects’ overwhelming unfamiliarity with all abbreviated lexical items can be attributed to the problematic nature of abbreviations, as well as the inadequate proficiency in L2 (i.e. English) and translation competence, apparently resulting from some deficiencies in the translation training programme which the subjects of the present study undertook (c.f. chapter 6).

In dealing with the problems of abbreviated lexical items in translation training programmes, translation educators are advised to increase students' awareness of the potential translational difficulty posed by such lexical items, e.g. through exposing learners to a wide range of abbreviations in texts chosen to be translated in translation classes, as well as using specialized abbreviation dictionaries, which if used efficiently would undoubtedly help in reducing the difficulty of such problematic lexical items in translation.

4.5.4. Technical lexical items

As was expected, the analysis of the subjects' protocols has revealed that most of the lexical items in the ST entitled *diamicron* turned out to be problematic for all subjects, mainly because of its technical nature. For example, the technical terms *mucocutaneous*, *gastrointestinal*, and *hepatic* appeared to have posed a translational difficulty for all the subjects of the experiment. In dealing with such problematic lexical items, the subjects resorted to the dictionaries at their disposal, which were helpful in only a few cases. This is partly because none of the subjects used specialized dictionaries (e.g. medical dictionaries). Rather, they only used bilingual and monolingual dictionaries which did not give definitions for most of the technical terms found in the STs of the experiment.

Unlike the case of polysemous words whose meaning is dependent on context, technical terms usually tend to denote one fixed meaning which if found in the dictionary would be easily rendered into the TL, as is the case with the medical terms in the present study.

The subjects' realisation of the problematic nature of technical terms (e.g. medical terms) is manifested by the following remarks taken from the protocols of five of the

subjects of the study (i.e. Faris (32), Badir (33), Omar (34), Zaid (35), and Hasan (36)), which they uttered as a reaction to encountering such problematic items during the course of translation:

Example: (32)

... muc.. muc [mucocutaneous]..عجزنا نقرأها الحين وشلون نبي نترجمها..مشكلتنا

دائما مع الكلمات المتخصصة...

...muc.. muc..[mucocutaneous].. I couldn't read it let alone translate it.. our problem is always with specialized vocabulary...

Example: (33)

...أظن مثل ترجمة هذا المجال يحتاج لنا قاموس طبي...

...I think translating such a field requires a medical dictionary...

Example: (34)

...الكلمات الطبية تحتاج إلى قاموس طبي...

...medical terms require a medical dictionary...

Example: (35)

...الأشياء الطبية صعبة جدا.. هذي تبي لها encyclopedia...

...the medical terms are very difficult.. they require an *encyclopedia*...

Example: (36)

...اعتقد تبي لها متخصص...

...I think it requires a specialized person...

The five excerpts quoted above are clear evidences of the fact that technical terms (e.g. medical terminology) posed a translation problem for the subjects of the study. These examples are also a clear evidence of the inherent limitation of bilingual and monolingual dictionaries as evidenced in their failure to provide definitions and equivalents for technical terms, a shortcoming that has been realised by the subjects of the study, especial'y those who stated explicitly the need for consulting a medical dictionary (see Chapter 5)

4.5.5. Neutral words

The term neutral words is used in the present study to mean words that are used in their basic sense, whose meaning is thought to be potentially non-problematic. For example, words like *elapse*, *frustration*, *justify* to name but a few, were found by some subjects to be problematic in that their meaning was unknown to them. However, quite often, problems caused by such items were found to be of a soluble nature, i.e. their meaning was easily obtained via the use of dictionary.

The analysis of the protocols shows that neutral words become problematic (i.e. unknown) as a result of a) a temporary loss of word meaning (i.e. a momentary memory malfunction) which is often followed by the strategy of lexical retrieval and if this fails a dictionary is used with a high degree of success, b) the uncertainty of the meaning of a certain neutral word in which case the dictionary is used for assurance, or c) total unfamiliarity of the meaning of a given neutral word which results from inadequate proficiency (or inadequate size of vocabulary) in the foreign language.

4.6. Quantitative analysis of translation problems

In the preceding section, the most persistent translation problems contained in the present data corpus were investigated qualitatively. In this section, these translational problems will be examined quantitatively. As was pointed out earlier, the qualitative analysis above was confined to those translational problems which were common to the majority of subjects. In this section, on the other hand, the quantitative analysis of translation problems will be extended to examine individual problems (i.e. those that occurred with one subject), uncommon problems (i.e. those that occurred with few subjects), and supraindividual (or common) problems (i.e. those that occurred with the majority of subjects).

The quantitative analysis of translation problems is based on the employment of the problem indicator model, which was introduced previously. The use of these indicators has allowed the investigator to achieve a reliable identification of the problems and consequently a systematic counting down of these instances of translational difficulties, as in the following table

Table 4.1: Frequency of translation problems

<i>subject</i>	<i>Frequency of problem</i>	<i>Percentage</i>
1-Khalid	47	13.5%
2-Hasan	42	12.1%
3-Hameed	40	11.5%
4-Zaid	34	9.8%
5-Thamir	34	9.8%
6-Omar	34	9.8%
7-Ali	33	9.5%
8-Faris	33	9.5%
9-Badir	31	8.9%
10-Faisal	20	5.7%
Total	348	

As shown in table 4.1, the subjects of the study encountered a total of 348 documented translation problems. The table also shows that there are some considerable individual variations in the number of translation problems ranging from 20 (5.7%) to 47 (13.5%). Here, the subjects are arranged according to the number of the identified translation problems which they encountered during the translation task performance.

The above table also reveals one interesting finding which relates to the presupposition that the level of translational and foreign language competence determines the quantity of problems that the translators encounter. That is, prior to the analysis of the data, the more competent subjects were expected to encounter fewer problems than the less competent ones. The figures in the above table, however, show that this is not always the case for the subjects of the present study. For example, Zaid, by far the most competent subject, scored the highest mark in the overall translation assessment, and encountered 34 (9.8%) translation problems, whereas Faisal, evidently a less competent subject (his end translation was rated as extremely poor in the overall assessment), was faced with only 20 (5.7%) instances of translational difficulties.

As observed in the subjects' protocols, it can happen that competent subjects encounter a higher volume of translational problems than the less competent ones mainly because they are more sensitised to translation problems. In other words, skilled informants (e.g. Zaid) may have a greater percentage of translation problems mainly due to their increased self-awareness and cautiousness of the implied difficulty of problematic items, in contrast with the *problem-insensitivity* of weak subjects (e.g. Faisal) when potential translation problems pass unnoticed, accordingly resulting in a rendering error (c.f. Chapter 6). Additionally, the competent subjects seem to exhibit the tendency to constantly edit their translation variants with the aim of improving their translation quality by going through the text more than one time. This may result in discovering new problematic items which had previously gone unnoticed, that is, what was a smooth translation at first may turn out to be a problem. Incompetent subjects, on the other hand, seem to be less motivated towards enhancing the quality of their translation, e.g. when they carelessly translate a potentially

problematic lexical item without much effort or consideration for its difficulty (or appropriateness), taking their hasty understanding and translation of this item for granted. Indicative examples of such sensitive and insensitive behaviours towards potential translation difficulties can be found in the protocols of Zaid (37) and Badir (38), as shown in the following two excerpts:

Example: (37)

نشوف القاموس... American slang الظاهر إفا ..hitting the road? ...

الأمريكي Webster..[checking the dictionary] .. hitting the road.. زيـن

موجود... to travel. to leave.. يعني يمسك الطريق...

... *hitting the road*?.. it seems to be *American slang*.. let's see the American dictionary, *Webster*..[checking the dictionary].. *hitting the road*.. good it's available.. *to leave*.. *to travel*.. it means to go on a journey...

Example: (38)

... hitting the road... يعني مهما عمل أو الطريقة التي يسلكها...

... *hitting the road*.. means what ever he does or the way he follows...

Example (37) and (38) above show clearly different degrees of sensitivity to translation problems. In (37) Zaid, the most competent subject, displays a high degree of cautiousness to what seems to be a potentially problematic idiom. Zaid's sensitivity to the potential difficulty of *hitting the road* is manifested by his immediate identification of the problem and consequently the use of the dictionary, which successfully resulted in an appropriate TT translation. Badir, one of the least competent subjects whose translation was rated as *an extremely poor translation* in the overall quality assessment, in (38) by contrast, shows no sign of sensitivity to what seems to be a potentially problematic item (i.e. hit the road), as manifested by

his instant provision of a TT equivalent, apparently without consideration for its contextual inappropriateness. The result, therefore, of Badir's unawareness of the difficulty posed by the idiom *hit the road* is an unacceptable translation. It is this kind of sensitivity that raised the number of identified translation problems in competent subjects' protocols, and lowered the volume of documented translation problems of weak informants.

Such results seem to corroborate the findings reported in Gerloff's study of the translation process of students, bilinguals and professional translators (1988:77-87). She concludes that the fact that translation does not get easier with increased translation competence is seen in the number of potential solutions participants generated for problems during the process of translating. Gerloff adds that this finding can be explained by the fact that knowing more about the language and about translation leads the more competent translators to judge their own work against higher ideal standards.

A similar unexpected result is also found in Al-Besbasi's study of the translation process of professional translators (1991:120). He observed that, against his previous expectations, some of his competent subjects encountered more problems than the less competent ones. Al-Besbasi, therefore, re-examined his data and inferred two clues that helped to explain the lack of "common inverse correlation between the number of translation problems and the subjects' competence." These clues are: a) the tendency of some competent subjects to create problems by their "obsession with accuracy", e.g. spending extra time and energy in consecutive attempts to identify potential problems, and overusing the dictionary; b) some less competent subjects' unawareness of their mistranslation when they mistakenly think that their translations are correct, thus preventing potential translation problems from emerging.

Similarly, Tirkkonen-Condit's main finding in her study (1987:46), which she conducted to compare the performance of professional and non-professional translators, was that professionals identified more problems than non-professionals, mainly because professionals were more aware of potential translation problems.

As regards the share of comprehension and production problems in relation to the total translation problems indicated in table 4.1 (=348 problems), a detailed analysis of the data corpus revealed that comprehension problems included all the identified problems (i.e. 348 comprehension problems) whereas production problems covered only those translation problems which the subjects failed to find a solution for (i.e. 201 production problems, 57.8% of the total number of identified translation problems).

4.7. The solubility of translation problems

As was indicated previously, the subjects did not find solutions for all translation problems even if problem-solving strategies were used. Also, a mention was made of the observation that problems were solved at different stages of the translation process; that is, problems were not resolved in a sequential way, as some problems required a great deal of backtracking and a *maximum expenditure of effort in order to* be soluble. Illustrations of solved and unsolved problems were presented previously as part of the qualitative analysis of translation problems encountered by the subjects of the study during their task performance (i.e. cf.4.4).

In the following, a quantitative account of the solved problems for each subject will be presented:

Table 4.2: Frequency of translation problem solving

Subject	Number of problems	Solved problems	Percentage
Zaid	34	24	70.6%
Hameed	40	25	62.5%
Ali	33	17	51.5%
Thamir	34	15	44.1%
Khalid	47	18	38.3%
Omar	34	12	35.3%
Hasan	42	14	33.3%
Badir	31	9	29%
Faris	33	9	27.3 %
Faisal	20	4	20%
Total	348	147	42.2%

As can be seen in table 4.2 above, the informants of the study were arranged in accordance with the degree of success in solving translation problems of each subject. It is also apparent that the subjects differed dramatically in the number of solved problems and the percentage of problem-solving in relation to the total volume of problems encountered. This ranged from 20% (the lowest) to 70.6% (the highest). One important finding that relates to the degree of success in solving translation problems by the subjects of the present experiment can be obtained from table 4.2. That is, on the whole, the column for the percentage of solved problems shows a relative correlation between the level of translation competence (cf. Chapter 6) and degree of successfulness in finding solutions for translation problems. For example,

Zaid, the most competent subject of the group, has been the most successful translation-problem solver with a rate of 70.6% of the total number of instances of difficulties, whereas Badir, Faris and Faisal, the least competent subjects, scored an extremely low volume and percentage of solved problems, i.e. 29%, 27.3%, and 20%, respectively. Such observation, therefore, entails that the degree of success in problem solving seems to have an effect on the quality of translation, as evidenced in the fact that, in the majority of cases, the best problem solvers produced the best translations and vice versa. That is, the subject's ability to solve translation problems has a direct relevance for successful translation.

4.8. Subjects' attitude towards translation problems

The subjects of the study were, generally, irritated by the presence of problematic lexical items, although to different degrees. This is apparent in the subjects' explicit statements of their frustration when they encountered a translation difficulty; especially those problems which are caused by cultural, abbreviated, or technical items that proved insoluble, as illustrated previously. Groaning, sighing, glottal stops, and desperate repetitions are also apparent in the subjects' protocols whenever a translator problem is identified.

Despite the fact that all subjects spent most of their translation task time in dealing with problematic items, in a great number of instances, the subjects' seemed discouraged by the insolubility of some problematic items, as evidenced by a) the haphazard translation of the insoluble problematic lexical item without considering its contextual appropriateness and b) leaving the unsolved problematic lexical item untranslated, i.e. leaving a gap in the translation manuscript.

CHAPTER FIVE

5. Problem-solving strategies

5.1. Introduction

In the preceding chapter, translation problems that the subjects of the present experiment encountered during their task performance were investigated. In this chapter, problem-solving strategies which the informants employ to bring about solutions to translation difficulties will be examined qualitatively as well as quantitatively.

The importance of investigating translation strategies in the present study stems from the fact that, in addition to the epistemological aim of the experimenter, strategic activities constituted a large part of the subjects' verbalised translation processes. This is because subjects tend to solve their translation problems by means of a variety of problem-solving strategies (i.e. the most important feature of the translation process, as observed in the present data corpus and other similar corpuses which have been studied, e.g. Krings 1986, c.f. section.4.2). The close connection between problems and strategies is also emphasised by Al-Besbasi (1991) who states that:

the relationship between translation problems and problem-solving strategies is one of cause and effect: translation problems determine problem-solving strategies. Al-Besbasi (1991:123)

Investigating translation strategies may also serve a didactic purpose: that is, if we observe a successful problem-solving strategy, it would be advisable to instruct translator trainees to use this technique to deal with translational problems. This

academic aim has been the focus of attention for a number of TAP investigators (e.g. Krings 1986, Jaaskelainen 1987 & 1991, Lorsch 1991, and Kussmaul 1995). Lorsch, for example, maintains that:

As far as the teaching of translation is concerned, it should be possible to make use of knowledge of the translation process for teaching translation. If certain translation strategies turn out to be successful, it might be worth considering teaching these strategies in one way or other. (Lorsch 1995: 885)

Likewise, Kirby (1992:393) states that investigating translation strategies can be feasible and rewarding, since translation trainees do not act aimlessly, i.e. their performance exhibits a certain degree of organisation suitable for empirical study. Kirby also points out that the notion of problematicity in studying translation strategies is a good criterion, because trainee translators were found to react in a different way to translation problems found in the ST.

5.2. Strategic processing vs non-strategic processing

Before embarking on the definition of the notion of translation strategies, a distinction should be made between strategic and non-strategic processing of translation, as observed in the present experiment and other similar TAP studies (e.g. Lorsch 1991 and Al-Besbasi 1991). As the subjects' protocols clearly show, their translation processes comprise strategic processes as well as non-strategic processes. Strategic processes are those conscious activities in the translation process which are oriented towards the identification and solving of translation problems. Non-strategic processes, on the other hand, are mainly automated activities (i.e. basically non-problematic translation-processing elements which are occasionally verbalised, e.g.

the reading of the ST) which aim at completing the translation task. This corroborates Lorsch's finding (1993) that:

The translation process contains both strategic phases, which are directed towards solving translational problems, and non-strategic phases, which aim at accomplishing tasks. The former range from the realisation of a translational problem to its solution or to the realisation of its insolubility at a given point in time. The latter start with the extraction of a unit of translation and terminate when it has been (preliminarily) rendered into TL or when a translational problem arises. Lorsch (1993:203)

Another study which makes a distinction between strategic and non-strategic processing is that of Al-Besbasi (1991:126) who points out that strategic processes are those translation steps which are carried out in response to translation problems. Non-strategic processes, on the other hand, are those spontaneous or automated translation activities which are instinctive reactions to the situations presented by the translation task. According to Al-Besbasi, the most important non-strategic processes that can be observed in the subjects' protocols are *direct transfers*. These are:

The processes in which the subjects automatically produce a translation for the source-text item/unit in question. There is little thought involved and subjects' transfer the source-text item into the target-text by utilising their linguistic knowledge of the two languages involved. These instantaneous reactions are the result of previous interlingual associations made by the individual subject between the equivalent items in questions. (Al-Besbasi 1991:123)

5.3. Translation strategies: a definition

In the present study, translation strategies are defined as *conscious plans which the translator employs to solve translation problems*. According to this definition, three definitional criteria were taken into account, namely (a) goal-orientedness, (b) problem-orientedness, and (c) consciousness-orientedness. By goal-orientedness we mean strategies are oriented towards achieving a certain goal; i.e. finding a solution for a translational difficulty. Problem-orientedness refers to the fact that translation strategies are only those activities which are generated as a reaction to a translational problem. Consciousness-orientedness is a criterion which indicates that translation strategies are those observable processes which the translator generates purposefully (i.e. they are not automated).

My definition of the notion of *translation strategy* draws primarily on Lorsch's definition (1991, cited previously in section 2.3.4.) of the concept of translation strategy, mainly because of its relevance to the aim and epistemological interest of the present study (i.e. investigating translation problems and problem-solving strategies contained in the protocols of non-professional subjects). Accordingly, Lorsch contends that a translation strategy is:

...a potentially conscious procedure for the solution of a problem which an individual is faced with when translating a text segment from one language into another. (Lorsch 1991:76)

As indicated earlier (c.f. section 2.1.3.4), in defining the notion of translation strategy, Lorsch seems to adopt Faerch and Kasper's (1980) global definition of communication strategy, which is:

A potentially conscious plan for solving what to an individual presents itself as a problem in reaching a particular goal.

(Faerch and Kasper 1980:60)

As is the case with the present study, Lorscheer's adoption of Faerch and Kasper's definition of communicative strategy in his investigation of problem-solving strategies (1991) is based on the fact that it contains the features of goal orientedness, problem-orientedness, and potential consciousness as definitional criteria. Lorscheer (1991:77) shows the relevance of these three definitional criteria to the notion of translation strategy as follows:

1-*Problem-orientedness* is to be seen in connection with the empirical documentability of strategies.

2-*Potential consciousness* results from an axiom according to which only those phenomena are interpreted to be problems which the subjects consider to be problems. In other words, strategies are defined from the perspective of the language user, the subject, not from the perspective of the analyst. Potential consciousness applies to the problem and the procedure employed for its solution which are in the subject's focus of attention.

3-*Goal orientedness* is a criterion of a general kind and applies not only to processes of language use but to human behaviour in general.

Hence, the concept of translation strategies in the present study is clearly designed to describe problem-solving strategies, not unproblematic processes of the translation task which were described previously as non-strategic activities, and thus not open to empirical investigation. This is in line with Lorscheer's findings (1991) in his study of the translation strategies as contained in the protocols of non-professional subjects. He observed that "within 'strategic phases' of the translation processes, subjects are faced with translation problems for the solution of which they employ strategies. Within 'non-strategic' phases, subjects do not realise translation problems and thus do

not use strategies” (Lorscher 1991:83). Similarly, Kiraly (1990) points out that the verbalisation in his study “revealed that potentially conscious strategies were implemented only when subjects were unable to produce an acceptable translation solution for a source text element” (Kiraly 1990:143).

5.4. Strategy indicators

As was pointed out in the foregoing chapter (c.f. section 4.3), translation problems were identified through the use of a number of problem indicators which were adopted from Kring’s *problem indicator model* (1986:267). These problem indicators will be used in the present chapter with the objective of identifying problem-solving strategies employed by the subjects to bring about solutions for problematic lexical items. Using problem indicators to detect strategies is justifiable on the grounds that, as was observed in the subjects’ protocols, translation strategies were used only when subjects were faced with translation problems. That is, subjects are bound to use problem-solving strategies only when they identify a translational difficulty. Thus, problem indicators were the operational criteria by which strategies were successfully identified and counted.

5.5. Elements of problem-solving strategies

As was indicated earlier (c.f. 4.3.2), problems were identified by the subjects throughout the different stages of the translation process, namely the preparatory stage, the writing stage, and the editing stage. A mention was also made of the fact that these identified translation problems were dealt with by means of problem-solving strategies throughout the three stages of the subjects’ translation task performance, although with different degrees of frequency. Although the majority of

translation problems were identified in the initial stage of the translation process, most of the problem-solving strategies were employed during the writing stage. A major reason for having most of the problem-solving strategies in the writing stage is that, as observed in the corpus data, the majority of subjects seem to have the tendency to leave the solution for potentially problematic translation units until later stages of the translation process, particularly the writing stage, so as not to interrupt the flow of their thought during the initial reading. It was also typical of some subjects to use a problem-solving strategy which results in a preliminary solution to a given problem at one stage of the translation process and to come back to the same translational difficulty at a subsequent stage of the translation task with different problem solving strategies, consequently reaching a successful end in some cases. It follows then that problems were not solved in a sequential way, as the subjects made a lot of backtracking in recurrent attempts to solve translation problems via problem-solving strategies at different stages of the translation process.

Accordingly, the analysis of the subjects' verbalisation yielded the result that translation strategies have their point of departure in the identification of a translational difficulty by the subject and their end in securing a solution to the problem, or in the subjects' realisation of the insolubility of the translation problem.

According to Lorsch (1991:96), between the identification of a translational difficulty and the realisation of its solubility or insolubility, a number of strategy steps or elements can occur as inferred from certain verbal activities. The same is true of the present experiment, as several strategic elements were observed in-between the start and the end of the employment of problem-solving strategies. These strategic steps are:

a) Recognising a translational problem:

The first step in the employment of a translation strategy is when the subject realises that he is faced with a translation problem. The experimenter often detects the subject's realisation of a problem when a long pause or a hesitation occurs during the reading of a certain lexical item.

b) Verbalising a translational problem:

The second step in the use of problem-solving strategies is when the subject verbalises his realisation of a translational problem, either explicitly (e.g. This is a problem) or implicitly in which case the analyst uses his intuition to interpret such verbalisation as a problem.

c) Searching for a solution to a translational problem:

After the realisation and the verbalisation of a translational problem, the subject engages in a search for a solution to the problem. However, this is not always the case, as some subjects start searching for a solution immediately after recognising the translational problem; that is, before the verbalisation of that problem. It can also happen that the initiated strategy is temporarily terminated when it proves unsuccessful or time-consuming, to be returned to at a subsequent stage of the translation process.

d) Preliminary solution to a translational problem

In dealing with a translational problem, the subject may resort to an interim solution with the intention of improving its status in later stages of the translation process. A striking example of this is when the subject provides two competing TT equivalents. Preliminary solutions are dealt with in two ways: a) the subject may approve the interim solution, thus turning it into an optimal solution or b) he may alter or reject

the preliminary solution and either begin the search for a new solution or quit his search for a solution for good.

e) Optimal solution to a translational problem

Sometimes the subject's employment of a problem-solving strategy (e.g. the use of dictionary) results in an optimal solution to the problem. In such circumstances, the translation strategy terminates once the subject realises that his search for a solution to the translation problem has come to a successful end.

f) Realisation of the insolubility of a translational problem

When the subject considers a certain translational problem to be insoluble, he tends to terminate his use of problem-solving strategies. What usually happens in such circumstances is that subjects either leave the insoluble problematic lexical item untranslated (i.e. leaving a gap in the translation manuscript) or randomly provide a TT equivalent.

g) Evaluation of a solution to a translational problem

When a subject finds what seems to him to be a solution to a translational problem, it sometimes happens that he evaluates his solution to the problem either positively or negatively. The subject's utterance of a positive assessment of the problem solution is a sign of the termination of problem-solving strategy. The negative evaluation of the proposed solution, by contrast, may lead the subject to engage in further problem-solving strategies with the objective of bringing about an optimal solution for the translational problem.

5.6. Problem solving strategies

In this section, I will examine problem-solving strategies which the subjects of the study employed with the objective of understanding problematic ST elements and

finding TT equivalents for those problematic lexical items. However, before embarking on the analysis of these problem-solving strategies, two important patterns of behaviour should be taken into consideration, which were observed in the subjects' protocols:

Firstly, although subjects use problem-solving strategies to solve translation problems, it is not always the case that the employment of these strategies results in a solution to these translational difficulties, i.e. not all strategies end in good translations, as some of these strategies prove unhelpful, and sometimes misleading, consequently resulting in mistranslations. Hence, the analysis of problem-solving strategies in the present study will not be confined to those strategies which result in an optimal solution (i.e. acceptable translation), but should include even those problem-solving strategies which turned out to be unsuccessful (for more detail on the successfulness of problem-solving strategies, see table 5.2)

Secondly, despite the fact that in a considerable number of cases, subjects use one strategy to deal with a translational problem, they may combine a variety of problem-solving strategies so as to bring about a solution for one particular problem, especially when one strategy proves unhelpful, or when it leads to an interim solution, in which case other problem-solving strategies are called for to arrive at an appropriate translation (i.e. an optimal solution). This is evident in the fact that the number of strategies is greater than that of the translation problems (i.e. 578 problem-solving strategies as opposed to 348 translation problems). A typical example of this is often observable in Zaid's protocols who in order to generate a solution for a translation problem executes the following set of strategic activities:

- a) Instantly after the identification of a translational problem, Zaid starts to monitor the problematic item by repeating it in an obvious attempt to retrieve its potential meaning from his memory.
- b) When this problematic lexical item proves totally unfamiliar after the memory search, Zaid resorts to the bilingual dictionary which provides a number of potential TT equivalents, in which case Zaid uses his translation intuition to pick up one potential translation (sometimes he uses reasoning and inferencing which are based on context or world knowledge).
- c) After choosing one potential TT equivalent from the bilingual dictionary, Zaid uses the monolingual dictionary for assurance and for checking the contextual appropriateness of his translation.

A clear illustration of that is also observable in Hasan's protocols who uttered the following excerpt upon translating the problematic item *Halloween*:

Example: (39)

Halloween اعتقد ان Halloween مصطلح وهي حقيقة من ال terms التي نواجهه
 منها صعوبة لأنها تعتمد على الخلفية الثقافية .. اعتقد أن Halloween عيد وتوصلت لهذه الحقيقة لأنني
 ترجمت قطعة باسم Halloween وهي تتكلم عن عيد للثقافة الغربية .. نسيت بالضبط ايض المقصود
 من معناها لكن قدامي الآن صورة واعتقد انه .. استشف منها أنها للأطفال هذا عيد الأطفال فيه المرح فيه
 السرور سيما وان الأطفال يجمعون اكبر قطعة ممكنة من القرع ويشكلونها على شكل وحش مبتسم .. كما
 قلت أن Halloween اعتقد أنها عيد اسمه عيد التنكر .. حقيقة ذهبت إلى بريطانيا وسالت my host
 family about Halloween أخذت فكرة لكنها مبسطة يعني ما أخذت فكرة عميقة عن العيد إلا
 أن الاسم اللي أتذكر انه اسمه عيد التنكر .. ولكن لكي أرسخ المعنى لابد أن أبحث في قاموس القارئ اعتقد
 انه ذاكر الكلمة هذي .. ولكن يتأبني شعور اني لن أجد معناه لأنه مصطلح ثقافي [checking]
 hallow يقدر يمجده يعظم ارض مقدسة .. لكن ما اعتقد أن معناها مقدس لكن لأبحث في قاموس
 Longman لعلني أجد فيه وحقيقة دراسة الأعياد أمر مهم جدا للتعرف على الثقافة .. كان عندي

كتاب عن الأعياد اسمه *American Days* وكان فيه *Washington Days* وكان فيه
Mother Day وكان فيه *Labor Day* وأذكر فيه *Halloween* لكن ما قرأته قراءة مستفيضة
لكن لعلي أجدها هنا في القاموس [checking] يقول 31st the night of October
when it was formerly believed that the spirit of the dead appears and
when the children dress up in strange clothes and play tricks
عشان أفهم الموضوع فهم دقيق.. 31st the night of October أعتقد أن الأرواح للموتى
تظهر عندما يكون الأطفال *strange clothes and play tricks* يعني يلعب فيها الأطفال
اللعاب.. أعتقد نعم توصلت إلى تعريفه أن اسمه عيد التنكر وهو أعتقد مشهور في أمريكا وبريطانيا.. رأيته في
الصور عيد التنكر.. رأيت بعض الأطفال يلبسون أو يلونون أبدانهم بشيء من الألوان بحيث يطلع على
شكل أسد أو نمر فأتوقع أن هذا من ضمن.. هذا يدخل تحته عيد الخالوين.. طيب...

...*Halloween*.. I think that *Halloween* is a term, and it is in fact one
of the *terms* which poses a problem to us because it is dependent on
the cultural background.. I think that *Halloween* is a festival and I
arrived at this fact because I translated a passage entitled *Halloween*
which was about a festival in the Western culture.. I forgot what
exactly it meant exactly, but I have in front of me now a picture
which I think.. I assume it's for children, that is a children's festival
which is full of joy and happiness, particularly because children
collect the largest piece of pumpkins and shape them in a form of a
smiling monster.. as I said *Halloween* is a festival of disguise.. In
fact I have been to Britain and I asked *my host family about Halloween*, I got a rough idea about this festival but the name that I
remember for it is the festival of disguises.. But to ensure the
meaning I have to look it up in the Al-Qari dictionary, I think it is
available there.. But I have the feeling that I will not find its
meaning because it is a cultural term [checking].. hallow: sanctify,
glorify, praise, a holy land.. But I don't think that it means holy, I'll
check it in Longman dictionary where I would hopefully find it,
really studying festivals is very important so as to learn about the
culture.. I had a book about festivals called *American Days*, and it
included *Washington Days, Mother's Day and Labor Day*, as I

remember, it also contained *Halloween*, but I didn't read it thoroughly... I hope I can find it in this dictionary [checking]..It says *the night of October the 31st when it was formerly believed that the spirit of the dead appears and when children dress up in strange clothes and play tricks..* I would like to repeat it so as to understand it accurately.. *The night of October the 31st ..I think that the spirits of the dead appear when children.. strange clothes and play tricks..* it means that children play games in it.. I think yes, I arrived at its definition, that it is called the festival of disguise which I think is popular in America and Britain.. I saw it in pictures as festival of disguise.. I saw some children wear, or paint their bodies with some colours to appear in a shape of a lion or tiger.. I think this is part of.. it is part of *Halloween* festival.. OK...

Example (39) above is a striking illustration of how one translational problem is addressed by more than one problem-solving strategy. Here, Hasan identified *Halloween* as a translational problem, as manifested by his comment "it is in fact one of the *terms* which poses a problem to us because it is dependent on the cultural background." Hasan's realisation of the difficulty of the term *Halloween* leads him to employ a number of problem-solving strategies in an attempt to find its Arabic equivalent. After the initial monitoring of the problematic item, he uses the strategy of semantic analysis coupled with the strategy of inferencing and reasoning by drawing on his world knowledge, previous experience, and the picture attached to the text under translation (see appendix 2), as seen in his comments: "I think that *Halloween* is a festival and I arrived at this fact because I translated a passage entitled *Halloween* which was about a festival in the Western culture.... I have in front of me now a picture which I think.. I assume it's for children, that is a child's festival... In fact I have been to Britain and I asked *my host family about Halloween*. I got a rough idea about this festival... I had a book about festivals called *American Days*. It

included *Washington Days*, *Mother's Day* and *Labor Day*, it also contained *Halloween*.” Hasan also uses the bilingual dictionary and abandons it when he mistakenly believes that the word is not available. His final attempt to find what *Halloween* stands for is carried out via consulting the monolingual dictionary which provides detailed and adequate information on the problematic lexical item. Hasan's success in finding a solution for what to him was a translation problem (i.e. Halloween) was the result of his successive use of problem-solving strategies complementarily.

It is also the case that one strategy can be used successfully to solve different translation problems (e.g. semantic analysis). For example, as the data shows, a great number of translation problems were primarily solved by merely consulting the bilingual dictionary rightly after the identification of the problematic lexical item, as in the following excerpt taken from Thamir's protocol:

Example: (40)

..what is the meaning of justify .. justify...
 هاالكلمة ما هي جديدة لكن
 وشي...؟..justify.. حل نشوفها بالقاموس [checking the bilingual dictionary] .. بيرر
 أو يسوغ...
 ...justify.. what is the meaning of justify.. this word is not new to me,
 but what is it?.. justify.. let's check the dictionary [checking the
 bilingual dictionary].. explain away or excuse...

In (40), it is clear that Thamir is encountering a translational problem caused by what seems to be a partially familiar word (i.e. justify). Here, Thamir might be experiencing a momentary fade of memory as regards remembering the meaning of *justify*. Immediately after his realisation of the problem, he employs one single problem-solving strategy, namely a consultation of the bilingual dictionary which

provides adequate information, thus resulting in an optimal solution to the translation problem.

Twelve types of problem-solving strategies were identified in the present data corpus. These were dictionary consultation, semantic analysis, guessing, providing an interim equivalent, providing alternative equivalents, reasoning and inferencing, compensation, copying, transliteration, avoidance, deferment and word-segmentation. These problem-solving strategies differed dramatically in their degree of successfulness (c.f. table:5.2) as well as the number of occurrence (i.e. density) as evidenced in the following table:

Table 5.1: Frequency of problem-solving strategies

No.	Problem-solving strategy	frequency	percentage
1	Dictionary consultation	309	53.5%
2	Semantic analysis	55	9.5%
3	Guessing	46	8%
4	Alternative equivalents	32	5.5%
5	Reasoning	30	5.2%
6	Interim equivalents	25	4.3%
7	Compensation	20	3.5%
8	Copying	17	2.9%
9	Transliteration	12	2.1%
10	Avoidance	12	2.1%
11	Deferment	10	1.7%
12	Word-segmentation	10	1.7%
Total		578	

As can be seen in table (5.1) above, a total of 578 problem-solving strategies were used by the subjects to generate solutions for the translational problems (=348 problems) which they faced during their translation task performance. The strategy of dictionary consultation was by far the most frequent problem-solving strategy (i.e. 53.5% of the total number of occurrences). The use of the dictionary was also the most successful problem-solving strategy (=62.7%) according to the total number of success, as shown in the following table:

Table 5.2: Degree of successfulness of problem-solving strategies

No.	Strategy	Frequency	No. and % successful strategies	% of the total number of success
1	Dictionary consultation	309	136 (44%)	62.7%
2	Semantic analysis	55	19 (34.5%)	8.8%
3	Reasoning	30	15 (50%)	6.9%
4	Alternative equivalents	32	12 (37.5%)	5.5%
5	Interim equivalents	25	11 (44%)	5.1%
6	Guessing	46	10 (21.7%)	4.6%
7	Compensation	20	8 (40%)	3.7%
8	Transliteration	12	3 (25%)	1.4%
9	Deferment	10	2 (20%)	0.9%
10	Word-segmentation	10	1 (10%)	0.5%
11	Copying	17	0 (0%)	0%
12	Avoidance	12	0 (0%)	0%
total		578	217 (37.5%)	

As can be seen in table 5.2 above, not all problem-solving strategies lead to a successful end (adequate translation), as only 37.5% of these strategies resulted in solutions for translational problems which the subjects encountered during their task performance. However, despite this moderate degree of success, problem-solving strategies have been a determining factor as regards the quality of the translation. That is, the subjects' end product has been significantly enhanced by the employment of these strategies as 147 translation problems (= 42.2% of the total number of problems, c.f. table 4.2) have been successfully solved, which if left unsolved would inevitably end in erroneous translations. This entails that had the subject not used problem-solving strategies, particularly the use of dictionary, their translations would have been far worse.

On the other hand, it can also happen that the employment of problem-solving strategies may occasionally worsen the quality of the translation. An example of this is when the subject misuses the dictionary (c.f. section 5.6.1.3), consequently producing faulty TT equivalents that reduce the quality of the end product.

The figures in table 5.1&5.2 give support to Krings' study (1986, reported in Tirkkonen-Condit 1989:75) which yielded the result that the subjects' principal strategy in solving translational problems, particularly problems caused by lexical items and idioms, was the use of the bilingual dictionary rather than textual or extratextual information.

Thus, because of the subjects' predominant use of dictionaries and the high degree of success of this strategy (compared with other problem-solving strategies), the conductor of the present study thought it was reasonable to give a detailed description of the subjects' behaviour as regards the use of reference materials as a problem-solving strategy. Discussing the use of dictionary at length is also justified on the

grounds that the ability to use reference materials is central in the training of translators as it is the most important aid for the translator to carry out the task of translating.

5.6.1. The strategy of dictionary consultation

In this section a detailed description of the different aspects of dictionary consultation will be thoroughly investigated with illustrative examples from the subjects' protocol data.

5.6.1.1. Primary source of reference

As was pointed out earlier (cf. Section 3.5), subjects were instructed to bring with them to the experiment room the dictionaries they normally use in their translation classes. This would certainly create a genuine situation, because the subjects were not used to translating without the presence of dictionaries. Thus, different types of dictionaries (both bilingual and monolingual) were also made available by the experimenter for the subjects to consult when they needed to do so.

The subjects were not provided with other types of reference materials such as encyclopaedias, and specialized dictionaries (e.g. technical dictionaries, dictionaries of idioms, dictionaries of synonyms), mainly because of their unfamiliarity with such tools.

As the analysis of the protocol data shows, the subjects differed considerably in the number of times they consulted the dictionary as well as in their principal source of reference. Table 5.3 below sums up the frequency of dictionary use along with the subjects' favoured source of reference (the subjects are arranged in order of frequency of dictionary use):

Table 5.3: Frequency and distribution of dictionary consultation

No	Name	Bilingual dictionary	Monolingual dictionary	total	% of the total number of occurrences of dictionary use
1	Zaid	18 (40.9%)	26 (59.1%)	44 (100%)	14.2%
2	Khalid	35 (85.4%)	6 (14.6%)	41 (100%)	13.3%
3	Hameed	32 (82.1%)	7 (17.9%)	39 (100%)	12.6%
4	Hasan	33 (89.2%)	4 (10.8%)	37 (100%)	12%
5	Faris	11 (32.4 %)	23 (67.6%)	34 (100%)	11%
6	Ali	25 (89.3%)	3 (10.7%)	28 (100%)	9.1%
7	Omar	18 (64.3%)	10 (35.7%)	28 (100%)	9.1%
8	Badir	3 (12.5%)	21 (87.5%)	24 (100%)	7.8%
9	Thamir	13 (61.9%)	8 (38.1%)	21 (100%)	6.8%
10	Faisal	9 (69.2%)	4(30.8%)	13 (100%)	4.2%
	Total	197 (63.8%)	112 (36.2%)	309 (100%)	

Prior to the present experiment, the assumption was that the more competent subjects would resort less to the dictionary to solve translational problems in comparison with the less competent subjects. This assumption was primarily based on the fact that the more competent subjects had superior linguistic and vocabulary capability, which they would manipulate in dealing with translational problems, especially those difficulties that are related to ST comprehension. The present study, however, indicated a rather surprising result; i.e. Zaid, by far the most competent subject, was the most frequent dictionary user as he consulted the dictionary 44 times which

constituted 14.2% of the total number of dictionary consultations. Faisal, by contrast, a less competent subject, used the dictionary only 13 times (= 4.2% of the total number of dictionary consultations). One explanation for Zaid's wide use of the dictionary is that, in addition to the fact that he encountered a larger volume of translational problems (= 34 problems), he showed a tendency to use the bilingual and monolingual dictionaries complementarily in his dealing with translational problems. One major reason for this kind of behaviour was Zaid's cautious attitude towards translational problems, as he wanted to ensure the suitability of his problem-solutions by using more than one dictionary. That is, Zaid showed some degree of professional behaviour by not readily accepting the variants offered by the bilingual dictionary, as he tested them in the monolingual dictionary and against the context of the TT.

On the other hand, Faisal's infrequent use of the dictionary was due in part to his detectable insensitivity to translation problems, as manifested by the fact that he identified only 20 translational problems. Consequently the number of his dictionary consultations was comparatively small: 13.

This result seems to authenticate a similar finding reported in Jaaskelainen (1990:156) who concluded that there was more dictionary consultation in the good and satisfactory groups than the least successful group. This may entail that successful translations presuppose a high degree of sensitivity to potential problems which is reflected in the relatively high frequency of dictionary use.

Similarly, Al-Ajmi's investigation (1992:153) of his subjects' use of the dictionary revealed that the frequency of dictionary use correlates with the improvement of subjects' foreign language proficiency, as manifested by the fact that the high level informants used their dictionaries more frequently.

Two other factors that may affect the increase in the frequency of dictionary use were also present in the present data, which were originally observed by Al-Besbasi (1991).

These two factors are:

- The subject's degree of confidence in his/her tentative translation of the source-text items, which can increase or reduce the number of consultations depending on how high or low the confidence is.
- The subject's degree of fastidiousness, as some subjects tend to pay far too much attention to details which leads to more and often unnecessary dictionary consultations. (Al-Besbasi 1991:161)

Regarding the primary source of reference, table (5.3) above shows that the subjects differed in their preferences, but on the whole the bilingual dictionary proved more popular than the monolingual dictionary (63.8% as opposed to 36.2%). The popularity of the bilingual dictionary, however, does not apply to all subjects as three subjects (i.e. Zaid, Faris, and Badir) preferred using the monolingual dictionary in their dealings with translational problems.

The popularity of the bilingual dictionary is similarly observed in Al-Ajmi's study (1992:140) of some subjects' use of reference material in translation. When asked about their preference as regard the type of dictionary (in a questionnaire), the majority of the subjects favoured the bilingual dictionary, particularly those with low foreign language (i.e. English) proficiency.

Furthermore, the fact that the use of the bilingual dictionary by the subjects of the present study (i.e. non-professional translators) constituted 63.8% of the total number of dictionary consultations may give some support to Jaaskelainen's conclusion (1987&1990) that non-professional translators showed a marked preference for bilingual dictionaries as a problem-solving strategy, whereas professional translators preferred using the monolingual dictionary as their primary source of reference. The

only difference between Jaaskelainen's non-professional subjects and the present subjects lies in the fact that while Jaaskelainen's subjects' use of monolingual dictionaries is limited to cases where the bilingual dictionary offers no help, some of the informants in the present study (i.e. non-professional translators) may resort solely to the monolingual dictionary to solve a given translation problem without necessarily checking the bilingual dictionary in the first place (i.e. particularly when the monolingual dictionary offers adequate information that bring about a solution for the problematic item under translation) . It is also the case that some of the subjects in the present study checked the monolingual dictionary first, and when it offered no clue for solving the translation problem, they then resorted to the bilingual dictionary. By the same token, some subjects turned to the monolingual dictionary when they were not satisfied with the information offered by the bilingual dictionary; i.e. the monolingual dictionary played only a supplementary role. Thus, the subjects in the present study showed various patterns of behaviour as regards which type of dictionary was consulted first, in contrast with Jaaskelainen's non-professional subjects who universally resorted to the monolingual dictionary only after the bilingual dictionary proved useless.

In Jaaskelainen (1987), the results of the study showed a relatively close connection between the type of reference material used in the experiment (i.e. bilingual or monolingual dictionaries) and the quality of translation. Jaaskelainen found that the fifth-year students produced a higher translation quality and their primary source of reference was the monolingual dictionary. On the other hand, first-year subjects' heavy reliance on the bilingual dictionary as the primary source of reference seemed to be connected with a low translation quality. This is further substantiated by Jaaskelainen's subsequent study (1990:158) which revealed that successful translators

favoured monolingual dictionaries, whereas the less successful translators relied more heavily on bilingual dictionaries as their primary source of reference.

In the present study, by contrast, the analysis of the subjects' primary source of reference, as shown in table 5.3, seems to give no support to Jaaskelainen's results; i.e. that there is a connection between the quality of dictionary use and the quality of translation. This is evident in the fact that, although Zaid and Faris used the monolingual dictionary as their primary source of reference (Zaid used the monolingual dictionary in 59.1% of his dictionary consultations and Faris's monolingual dictionary consultations constituted 67.6% of the total number of times he used reference material), Zaid produced the best translation quality (c.f. section 6.2.1) whereas Faris produced the worst translation quality among all subjects (c.f. section 6.2.10). On this basis, it seems rather obvious that there is no evidence that the type of dictionary (i.e. whether bilingual or monolingual) would determine the quality of the translation. The assumption is, however, that there is a relatively close correlation between the quality of translation and the degree of efficiency in the use of dictionary (i.e. making appropriate use of the information offered by the dictionary), as well as the comprehensiveness of the dictionary under consultation.

Table 5.3 also shows that none of the subjects used only one type of dictionary as a problem-solving strategy, a behaviour observed by Krings (1986, reported in Jaaskelainen 1990:150), as some of his subjects never used a monolingual dictionary even though they had access to one. One possible explanation for this difference in the quality of dictionary consultation between the informants in the present study and Krings' subjects lies in the fact that Krings' subjects had a lower foreign language proficiency than the present experiment's informants which would mean that Krings' subjects found it a hard task to understand the information offered by the monolingual

dictionary (because it is written in the foreign language), thus they resorted entirely to the bilingual dictionary as “the easiest way of solving problems” (Jaaskelainen 1990:151).

Regarding the degree of successfulness of bilingual and monolingual dictionaries, the analysis of the protocols revealed that the consultation of the bilingual dictionary was a more successful problem-solving strategy than checking the monolingual dictionary, as shown in table 5.4 below:

Table 5.4: Degree of successfulness of bilingual and monolingual dictionaries

No.	subject	No. of cases of bilingual dictionary use	No. and % of cases of successful use of bilingual dictionary	No. of Cases of monolingual dictionary use	No. and % of cases of successful monolingual dictionary use	Overall no. and % of success
1	Zaid	18	11 (61.1%)	26	16 (61.5%)	27(61.4%)
2	Hameed	32	17 (53.1%)	7	5 (71.4%)	22 (56.4%)
3	Thamir	13	6 (46.2%)	8	5 (62.5%)	11(52.4%)
4	Omar	18	6 (33.3%)	10	7 (70%)	13 (46.4%)
5	Ali	25	12 (48%)	3	0 (%)	12(42.9%)
6	Badir	3	1 (33.3%)	21	9 (42.9%)	10(41.7%)
7	Khalid	35	17 (48.6%)	6	0 (%)	17 (41.5%)
8	Hasan	33	14 (42.4%)	4	1 (25%)	15 (40.5 %)
9	Faris	11	3 (27.3%)	23	4 (17.4%)	7(20.6%)
10	Faisal	9	2 (22.2%)	4	0 (0%)	2 (15.4%)
	total	197	89 (45.2%)	112	47 (42%)	136 (44%)

The figures in table (5.4) show clearly that the bilingual dictionary accounted for most of the successful dictionary consultations (= 89, i.e.65.4% of the total number of successful dictionary use). The higher volume of success achieved using the bilingual dictionary is largely attributable to the fact that it was used more frequently than the monolingual dictionary (i.e. 197 as opposed to 112 occurrences); and less significantly to the inadequacy in the foreign language (i.e. English), as manifested by the fact that some informants failed to benefit from the monolingual dictionary when they had difficulty in understanding information provided by such reference material, consequently adding to their comprehension problems. For example, some definitions offered by monolingual dictionaries may contain words which themselves are problematic for the subject to understand, in which case he may engage in another dictionary search to disambiguate the problematic item found in the monolingual dictionary's definition. A clear example of this is found in the following excerpt taken from Faris's protocols:

Example: (41)

VA..VA ... مشكلة المختصرات دائما ما أحصلها في القواميس.. لو كان هناك
 dictionaryمخصص للمختصرات لكأن أفضل...
 veteran ..VA ..[Checking the monolingual dictionary]
 administration .. وش معنى veteran .. نشوف معناها .. المعنى الثلثي vicar apostolic ..
 وش معناها ذي بعد؟.. الآن نبحت في قاموس القارئ [checking] .. الصراحة انه رغم حجمه إلا أنه
 غني .. veteran.. مخنك خبير محارب قديم...
 ...VA..VA.. the problem with abbreviations is that they are never
 found in dictionaries.. it would be better to have a *dictionary*
 dedicated to abbreviations...
 [checking the monolingual dictionary]..VA .. I found it.. *veteran*
administration.. what is the meaning of *veteran*.. let's check its
 meaning.. the second meaning is *vicar apostolic*.. what does this

mean too?.. now let's check the Al-Qari dictionary [checking].. in fact this is a rich dictionary despite its size.. *veteran*.. experienced, skilled, experienced warrior...

In example (41) it is apparent that Faris is encountering a translational problem, namely the abbreviated item *VA*. To solve this problem, Faris immediately resorts to the monolingual dictionary which lists two definitions (Veteran Administration and Vicar Apostolic) which turn out to be unfamiliar to the subject. Faris's failure to benefit from these two definitions that were offered by the monolingual dictionary is apparently the result of some deficiency in his English proficiency. In order to understand the information in the monolingual dictionary, Faris has to resort to the bilingual dictionary.

A secondary observation that can be drawn from the figures in table 5.4 relates to the correlation between the degree of successfulness of dictionary use and the quality of translation. Here it is apparent that there is some connection between the number of cases of successful dictionary use and the quality of translation. This is evident in the fact that Zaid was the most successful dictionary user and produced the best translation. On the other hand, Faisal, Faris, and Badir were the least successful dictionary users (i.e. in terms of frequency of success) and produced the worst three translations of the whole group of subjects (c.f. chapter 6). The figures in table 5.4 show that Zaid used the dictionary successfully 27 times (= 19.9% of the total number of cases of successful dictionary consultation), whereas Faisal, Faris, and Badir's success in dictionary consultation was as low as 2 (=1.5%), 7 (=5.1%), and 10 (=7.4%), respectively. This correlation between the frequency of successfulness of dictionary use and the quality of translation is understandable on the grounds that successful dictionary searches would lead to solving translational problems, which

would in turn result in the reduction of translation errors and consequently an improvement in the quality of translation.

Regarding the factors that determine the successfulness of dictionary consultation, the analysis of the subjects' protocols revealed two elements which proved vital to the success of the dictionary search. These are (a) the availability of the information (i.e. definitions and TL equivalents of problematic ST lexical items) sought by the subject in the dictionary under consultation and (b) the subject's ability to properly extract information from the dictionary; i.e. the subject's efficiency in the use of the dictionary.

5.6.1.2. Purposes of dictionary consultation

As was indicated earlier (c.f. table 5.2), the use of the dictionary accounted for most of the successful problem-solving strategies (= 62.7%). As the protocols of the subjects show, the dictionaries which the subjects used to solve translational problems were employed for different purposes, as follows:

First, the primary purpose of using dictionaries in the present experiment (both bilingual and monolingual dictionaries) was to find out the meaning of totally unfamiliar lexical items found in the ST (i.e. comprehension problems). The subjects found the bilingual dictionary a more appropriate tool to serve this purpose (i.e. checking the meaning of unfamiliar words), as manifested by the higher number of cases of bilingual dictionary consultation in comparison with that of the monolingual dictionary (197 (63.8%) as opposed to 112 (36.2%)). It is also the case that the bilingual dictionary enjoyed a higher degree of success in terms of providing definitions for unfamiliar lexical items, in contrast with the monolingual dictionary. One major reason for the higher rate of success of the bilingual dictionary in solving

comprehension problems is apparently the fact that some subjects found it a difficult task to understand the definitions offered by the monolingual dictionary, because of the nature of the definition (e.g. it contained potentially problematic words) and some inadequacy in the foreign language (i.e. English) on the part of the subject. On the other hand, consulting the bilingual dictionary for meanings of unfamiliar words was an easy and time-saving task, mainly because the definitions are written in the mother tongue (i.e. Arabic). Examples of using dictionaries to check meanings of unfamiliar words are scattered all over the subjects' protocols. A case in point is found in Zaid's protocol, as shown by the following excerpt:

Example: (42)

checking the monolingual] أه وش بعد ذي؟ Haptic disorder...
 [dictionary .. يقول لك .. relating to or associated with the liver يعني
 اختلال في الكبد...
 ..[checking the bilingual dictionary] ؟symptoms ويش معنى symptoms
 أيوه عرض مرضي...
 ...*hepatic disorder*.. oh what is the meaning of this too ?[checking
 the monolingual dictionary].. it says *relating to or associated with
 the liver*.. it means a deficiency in the liver...
symptoms .. What does *symptoms* mean? [checking the bilingual
 dictionary].. Oh yes, a sign of sickness...

Example (42) is a clear illustration of the use of bilingual and monolingual dictionaries with the objective of checking out the meaning of unfamiliar lexical items found in the ST (i.e. comprehension problems). Here, Zaid uses the monolingual dictionary in the first instance once he realises the problematic nature of the lexical item *hepatic*. The monolingual dictionary in this case offers a clear definition of the word *hepatic* which Zaid finds comprehensible and satisfactory, thus leading to an

acceptable solution to the problem. In the second instance, on the other hand, Zaid uses the bilingual dictionary to check what seems to be another problematic item (i.e. symptoms). As was the case with the monolingual dictionary, the bilingual dictionary provides an adequate equivalent for *symptoms*, thus resulting in successfully putting an end to the translational problem.

Secondly, it was a common practice of the subjects of the present study to resort to the dictionary for the purpose of assurance. This takes place when the subject encounters a lexical item in the ST whose meaning is known to him but with some degree of uncertainty. In this case, the subject resorts to the dictionary so as to confirm the appropriateness of the proposed translation. As can be seen in examples (43) and (44) which were taken from the protocols of Ali and Zaid respectively, both bilingual and monolingual dictionaries were used to serve this purpose:

Example: (43)

... elapsed .. أنا أعرف معناها .. أتوقع هنا إنها تحمل معنى انقضى لكن للتأكد نشوف معناها

... [checking the bilingual dictionary]

... *elapsed*.. I know its meaning.. I think it means passed, but for assurance lets check its meaning [checking the bilingual dictionary]...

Example: (44)

..co-worker ..One day his co-worker... زميله في العمل.. ممكن نتأكد على أساس

fellow- .. [checking the monolingual dictionary] أكيد إنها زميل في العمل .. يعني

worker .. زميل .. يعني طيب زميل في العمل ...

...*one day his co-worker*.. fellow-worker.. we can make sure if *co-worker*.. it must be a fellow-worker [checking the monolingual dictionary]..it means *fellow-worker*.. fellow .. OK, it means a colleague in work...

As can be seen in example (43), Ali uses the bilingual dictionary so as to check the meaning of *elapse*, a word which seems partially familiar to him, as evidenced by his comment “I know its meaning.” The purpose of such conduct is apparently to authenticate the suitability of the TT equivalent (i.e. مضي) which he initially proposed. Likewise, Zaid in example (44) uses the monolingual dictionary, seemingly with the aim of confirming the appropriateness of the TT equivalent (i.e. زميله في العمل) which he suggested for the compound word, *co-worker*.

Thirdly, it was typical of the subjects in the present study to use dictionaries as a mnemonic aid. That is, the subjects have the tendency to consult the dictionary in cases where they seem to suffer from a momentary memory malfunction caused by the encountering of a partially familiar word in the ST, whose meaning is momentarily absent from the subjects’ mind. A striking example of this is found in Khalid’s protocols as shown by the following excerpt:

Example: (45)

...continent .. [checking the dictionary] .. القارة .. صح .. راحت عن بالي ..

نسيتهها ...

...continent .. [checking the dictionary].. the continent.. this is right

.. it escaped from my mind.. I forgot it...

Quite obviously, in example (45), Khalid is experiencing a momentary memory breakdown as regards the meaning of the word *continent*. This is explicitly shown by his comment: “it escaped from my mind.. I forgot it”, which shows that *continent* is a word whose meaning is already stored in his mind (i.e. familiar), but at the time of translating it became momentarily absent from his memory. In this case, Khalid uses the dictionary as a mnemonic aid with the objective of retrieving the temporarily lost meaning of the word *continent*.

Fourthly, the analysis of the protocols yielded the result that some subjects tend to consult both bilingual and monolingual dictionaries for the purpose of searching for contextual clues in illustrative examples, e.g. in cases where the subject is faced with two or more tentative TT equivalents.

Fifthly, the subject may use the dictionary for the purpose of editing, i.e. in cases where the subject provides a tentative translation for a certain lexical item which turns out to be unsatisfactory, in which case the subject resorts to the dictionary in search of an alternative TT equivalent.

Example: (46)

after waiting for ten minutes during one call he became ...
معناها الظاهر يصك السماعه stick it out ..determined to stick it out
stick out [reading the ST again]...
stick out لكن stick it out .. ما أدري ..
stick out. stick out. ..[checking the dictionary].. check it up now
stick out يبرز .. يواصل حتى النهاية.. الظاهر انه واصل ماصك السماعه عكس ما قلت .. واصل ..
وبعد انتظار دام لعشرة دقائق لمكالمه واحده فقط عزم على الاستمرار في المكالمه ...
...after waiting for ten minutes during one call he became
determined to stick it out.. stick it out.. apparently it means hang up
the telephone hand set...
[reading the ST again] stick out means protrude but stick it out.. I
don't know.. check it up now [checking the dictionary].. stick out,
stick out, stick out means protrude.. proceeds until the end.. it seems
that he didn't hang up the telephone, opposite to what I said earlier..
continued.. after waiting for ten minutes in only one call he became
determined to continue his call...

In (46) it is quite conspicuous that Hasan is finding it difficult to translate the idiom *stick it out*. Here, Hasan suggests a tentative TT equivalent (i.e. hang up the telephone hand set). In the second reading of the ST (the editing stage), Hasan

decides to revise the tentative translation which he suggested previously for *stick it out* and to look for an alternative TT idiom by consulting the dictionary. Hasan's use of the dictionary as a revising tool resulted in a successful translation of the idiom *stick it out*, namely *continued*.

5.6.1.3. Misuse of dictionaries

Despite the fact that the dictionaries have been an indispensable aid to the subjects in carrying out the task of translation, particularly in solving most of the translational problems, the subjects may sometimes fail to benefit from the availability of the dictionaries at their disposal, due to some deficient use of such reference materials or the inadequacy of these dictionaries.

The analysis of the present protocol data revealed that the subjects differed to some extent in their efficiency as regards the use of the dictionary. While some subjects showed that they were relatively efficient dictionary users, others displayed inconsistent behaviour in their dictionary consultation. The most noticeable patterns of dictionary misuse are as follows:

- a) The most salient type of dictionary misuse is manifested by the fact that some subjects in the present study tend to readily accept translations offered by the dictionary which are irrelevant to the text under translation, i.e. without considering the contextual suitability of such variants. That is, in cases where the dictionary fails to provide the relevant information (e.g. due to the dictionary's inadequacy), some subjects seem to look at the dictionary as the final authority by not questioning or evaluating translations offered by the dictionary, that is, by failing to test the variants provided by the dictionary against the context of the TL. Such inexperienced behaviour results in a great number of mistranslations which

consequently affect the quality of the translation end-product. A striking example of this is found in the protocols of three subjects (Omar, Badir, and Khalid, respectively) when they were translating what seemed to be a problematic abbreviated lexical item, namely the abbreviation TT (i.e. target text):

ST: At the extreme of SL bias is interlineal translation, where the TT does not necessarily respect TL grammar...

Example: (47)

والله أنا أنبسط إذا .. telegraphic transfer .. [checking the dictionary] ..TT...
وجدت المصطلح المختصر .. التحول البرقي ...
...TT.. [checking the dictionary] *telegraphic transfer*.. I really feel
happy when I find the abbreviated term.. the telegraphic transfer...

Example: (48)

.... أبغي أبحث عن المختصرات SL و TT و TL و ST ...
...the TL ..source language ..[checking the dictionary] SL
... target language .. [checking the dictionary]
... telegraphic transfer .. [checking the dictionary] TT
... I want to search for the abbreviations, *SL*, *TT*, *TL*, and *ST*...
SL [checking the dictionary].. *source language* ..*TL* [checking the
dictionary] .. *target language* ..*TT* [checking the dictionary]..
telegraphic transfer...

Example: (49)

... التحول البرقي .. telegraphic transfer .. [checking the dictionary] TT ...
...TT [checking the dictionary].. *telegraphic transfer*.. the
telegraphic transfer...

Examples (47), (48), and (49) above illustrate clearly how some subjects may misuse the dictionary when they incautiously accept the first TL equivalents offered by the dictionary without considering the context of the TT. Here, Omar, Badir, and Khalid,

respectively, are finding it difficult to translate the abbreviation *TT*. Therefore, they immediately resort to the dictionary to find an equivalent for this problematic item. In all the three cases, the dictionary failed to provide the appropriate equivalent (i.e. *target text*) and alternatively indicated that *TT* stands only for *telegraphic transfer*, which the subjects hastily accepted and translated into Arabic, without considering the contextual suitability of such a translation as well as the overall readability of the *TT*. The result of such deviant behaviour is an odd translation for all the three subjects, as evidenced by the following back-translation of the subjects' translation products:

Omar's translation:

وفي نهاية الترجمة للغة المصدر نجد أنها تكون ترجمة حرفية. وذلك عندما يكون التحول البرقي لا يراعى بشكل ضروري قواعد اللغة الثانية.

Back-translation: At the end of the translation of the source language we find a literal translation. This is when the *telegraphic transfer* does not necessarily respect the rules of the second language.

Badir's translation:

ولكن في حالة أن يكون الميل في اللغة الثانية فإن الترجمة تكون ترجمة حرة حيث أن التماثل الشامل يكون موجود فقط بين الوحدات النصية في الوقت الرسمي والوحدات النصية في التحول البرقي.

Back-translation: But in case the deviation is in the second language, the translation will be a free one where the global correspondence is available only between the textual unit at the official time and the textual units in the *telegraphic transfer*.

Khalid's translation:

يكون الحد الأقصى للانحراف في الوقت الرسمي هو ترجمة ما بين سطور النص حيث أن التحول البرقي ليس بالضرورة لا يعبر اهتماما لقواعد اللغة الثانية.

Back-translation: The extreme end of deviation is at the official time which is translating what is between the lines of the text where the *telegraphic transfer* is not necessarily, does not respect the rules of the second language.

As can be seen in the above back-translations, Omar, Badir, and Khalid's improper use of the dictionary (i.e. readily accepting the variant offered by the dictionary regardless of its contextual unsuitability) resulted in the production of extremely poor translations. That is, by choosing البريد البرقي (telegraphic transfer) as an equivalent for the abbreviation *TT*, it is apparent that the three subjects naively trusted the information offered by the dictionary and overlooked the subject matter of the ST as well as the contextual coherence of the TT. Such behaviour is presumably the result of a) the subjects' inexperience in dictionary consultation which can be attributed to the lack of training and deficiency in translation competence and b) the subjects' carelessness or insensitivity towards the readability of the TT. In other words, the fact that the three subjects readily accepted the information offered by the dictionary without considering its contextual suitability can be explained by the assumption that the subjects may have comprehension goals in mind rather than production goals, which is typical of novice translators and foreign language learners, as observed by similar studies, e.g. Jaaskelainen (1987) and Kussmaul (1995). Here, one can assume that if the subjects have evaluated the contextual appropriateness of البريد البرقي (telegraphic transfer) in the TT, they might have realised the irrelevance and unsuitability of such a translation to the subject matter, namely the definition of types of translations.

b) The second observable type of subjects' misuse of reference material takes place when the dictionary successfully provides the appropriate definition for a problematic lexical item but the subject fails to benefit from such information. A revealing example of this is found in Faisal's data protocols when he verbalised the following excerpt upon translating the abbreviation VA:

Example: (50)

[When my father was a biomedical repairman in a VA Hospital]
..VA... وش معنى VA .. نروح للمورد لمحل الاختصاصات ونشوف ..
[checking the dictionary] .. قائمة اختصارات جيدة.. Virginia VA إحدى
الولايات.. vice admiral .. رتبة عسكرية vice admiral .. يعني المقصود in repairman
a VA.. hospital مستشفى عسكري...
...VA.. what is the meaning of VA ?.. let's check the abbreviation
section in Al-Mawrid [checking the dictionary].. this is a good list
of abbreviations.. VA, Virginia, one of the states.. vice admiral.. a
military rank.. vice admiral.. it means a repairman in a VA hospital,
that is a military hospital...

Example (50) above illustrates manifestly how Faisal fails to choose the appropriate TT equivalent *Virginia* despite its availability in the dictionary and rashly opts for *vice admiral*, definitely an inappropriate TT equivalent for the abbreviation VA. Faisal's failure to select the right equivalent (i.e. Virginia) is apparently the result of his inexperience in the use of the dictionary, as evidenced by his baseless confidence and haphazard selection of the wrong equivalent without checking its appropriateness against the context of the overall translation.

c) Some subjects showed some inefficiency in their dictionary use when they failed to understand all or parts of the definitions offered by the monolingual dictionary, a practice which can doubtlessly be attributed to some deficiency in the foreign language (i.e. English). Thamir, for example, recognises this inadequacy, when he explicitly remarks:

Example: (51)

..VA hospital... عاد وشي VA والله شغلة الاختصاصات...

Advanced ..والله مشكلة المختصرات.. [checking the monolingual dictionary]
Oxford Dictionary جيد لكن قليل استخدامنا له بصراحة .. أحيانا ندير بالإنجليزي إنجليزي
وبعدين تجيك كلمة في نفس الشرح ما تعرف معناها...

...*VA hospital*.. what is *VA*?.. the abbreviations are troublesome...
[checking the monolingual dictionary].. abbreviations are
problematic.. *Advanced Oxford Dictionary* is good but in fact we
rarely use it.. sometimes we consult the English-English dictionary
when we find in the definition a word that we don't know...

d) Some subjects seem to have the tendency to read only one variant, in cases where the dictionary offers more than one definition for a particular problematic lexical item. This practice is evidently inappropriate and misleading as it can happen that the only definition read by the subject may turn out to be an unfitting translation and that the appropriate translation is in the other variants offered by the dictionary which the subject overlooked. An example of this is found in the protocols of Hasan, as in the following excerpt:

Example: (52)

ST: global correspondence between the textual units of the ST and the TT.

... global correspondence between the textual units .. تطابق عالمي بين

الوحدات النصية.. [checking the dictionary] textual ?.. نصي .. global ?.. كيف

تجي عالمي هنا [checking the dictionary] .. global .. عالمي .. صح عالمي...

... *global correspondence between the textual units*.. a worldly
correspondence between the textual units.. *textual* ?.. [checking the
dictionary].. textual.. *global*? How can we use worldly
here.. [checking the dictionary] *global*. worldly.. worldly is correct...

Example (52) illustrates clearly how harmful it is to consider and read only one definition in consulting a dictionary, when a number of variants are listed as potential

equivalents for a particular problematic lexical item. Here, Hasan, upon realising the problematic nature of the word *global*, decides to consult the bilingual dictionary *Al-Mawrid* that lists three TT equivalents, namely عالمي كروي شامل. Hasan reads and considers only عالمي, an inappropriate equivalent in the given situation and overlooks the other two variants. The result of this behaviour is a mistranslation which could have been avoided had he taken into consideration the other variants offered by the dictionary, particularly شامل which fits perfectly as a good translation for *global* within the context of the TT.

e) Using the dictionary to check a problematic lexical item under a wrong headword.

Illustrative examples of searching under a different headword are found in the protocols of Faris (example 53) and Faisal (example 54), as in the following two excerpts:

Example: (53)

ST: When my father was a biomedical repairman in a VA hospital.
 biomedical ... اعتمد انه كلمة طبية.. ربما تكون محضر أدوية.. المصطلحات الطبية دائما ما
 تصير صعبة.. دائما ما أواجه صعوبة في حفظ الكلمات الطبية.. [checking the dictionary]
 ...a biomedical
 ...*biomedical*.. I think it is a medical word.. it could be a medicine-
 manufacturer .. the medical terms are often difficult.. I always find it
 difficult to memorise medical terms..[checking the dictionary].. *a
 biomedical*...

Example: (54)

ST: the side effects are those which usually occur with this type of
 drug: They are: mucocutaneous reactions...
 mucocutaneous ... الآن نبحث في المورد [checking the dictionary] .. مادة
 مخاطية...

...*mucocutaneous*.. now we check AL-Mawrid [checking the dictionary] ..*mucoserous* ...

In (53) and (54), it is apparent that Faris and Faisal are using the dictionary inefficiently, i.e. by searching under the wrong headword. In example (53), Faris's misuse of the dictionary is manifested by his faulty search for the meaning of the problematic item *biomedical* under the entry *a biomedical*. That is, instead of searching for *biomedical* in the B section of the dictionary, Faris mistakenly adds the indefinite article to *biomedical* and searches under the A section of the dictionary, which inevitably ended in an unsuccessful consultation. In example (54), on the other hand, Faisal is clumsily searching for the problematic item *mucocutaneous* under a phonetically similar word, namely *mucoserous*, which again resulted in a mistranslation. Here, in both cases, it could be the case that Faris and Faisal misuse of the dictionary (i.e. searching under the wrong headword) is the result of their lack of concentration or lack of dictionary training (i.e. inexperience).

f) The slow speed at which some subjects use the dictionary may also reflect some degree of inefficiency and inexperience, i.e. when they spend a great amount of time in searching for the meaning of one single word. It is also the case that some subjects may consult the same dictionary more than once to check the same lexical item, a behaviour that wastes valuable time during the task of translating.

However, although some of the subjects in the present experiment showed some signs of inefficiency in dictionary consultations as shown earlier, none of the subjects displayed a behaviour which was eccentric, as that of Krings' subjects (1986) when they made statements like "If all equivalents concerned are in the dictionary, take the one that precedes the others or the shortest one" (Krings 1986: 273), upon consulting the dictionary. One possible explanation for such novice

behaviour is the fact that Krings' subjects are foreign language learners with potentially no translation experience, as they are trained to be language teachers. By contrast, a few subjects in the present study, particularly Zaid, showed that on the whole they were efficient dictionary users, wasting little time in their dictionary searches, choosing the right dictionary where the information could be found and paying attention to the contextual appropriateness of the information offered by the dictionary.

5.6.1.4. Attitude towards dictionaries

Despite the fact that the use of reference materials generated most of the solutions to translational problems, some of the subjects in the present experiment showed some degree of dissatisfaction with both bilingual and monolingual dictionaries. One major reason for the subjects' discontent is the fact that both bilingual and monolingual dictionaries proved inadequate in some instances of consultation, particularly in providing information on problematic lexical items, such as abbreviations, technical vocabulary, and idioms. That is, some of the subjects were critical, although to varying degrees, of the non-comprehensive nature of all types of bilingual and monolingual dictionaries when they failed to provide satisfactory information on a number of occasions about different types of problematic lexical items. Examples of that are scattered all over the subjects' protocols, as in the following excerpt taken from Hameed's verbal reports:

Example: (55)

وطني biomedical كأنها شئ طبي .. When my father was a biomedical ...

bio. bio ..خلينا نشوف قاموس القارئ المزعج هذا.. [checking the dictionary]

..biomedical. biomedical. Biomedical.. يعني زي ما توقعت القارئ ما راح يسعفنا

مرة.. ما فيه زي ما تصورت...

..gastrointestinal [checking dictionary] .. ما فيه فايده هالقاموس .. خلاص بالنسبة

لنا انتهى هالقاموس...

.... *When my father was a biomedical.. what is biomedical?*, it seems something medical *bio. bio..* let's check Al-Qari, the annoying dictionary..[checking the dictionary]..*biomedical. biomedical. biomedical..* like I expected, Al-Qari will not help us at all.. like I thought, there is nothing...

gastrointestinal.. [checking the dictionary].. this dictionary is useless.. it is all done.. for us, this dictionary is finished...

As can be seen in example (55), Hameed seems to be frustrated by the limitations and inadequacy of the bilingual dictionary *Al-Qari*, as it failed to provide him with appropriate equivalents for the problematic lexical items, *biomedical* and *gastrointestinal*. His frustration is explicitly expressed by his description of the dictionary as “annoying”. Hameed’s negative expectation of Al-Qari dictionary is justifiable on the grounds that it constantly failed to provide adequate information on unfamiliar lexical items which posed problems to him. Consequently, as is the case with some other subjects, Hameed resorted to different types of dictionaries (e.g. Longman and Advanced Oxford) in his subsequent dealings with translational problems.

In most cases, the subjects’ low opinion of a certain dictionary does not seem to be a preconceived conviction but is rather a verbal reaction to their momentary unsuccessful experience with this particular reference material. It is also fairly safe to assume that the subjects’ negative comments on dictionaries can be linked to their unawareness of the shortcomings and potential pitfalls of the dictionaries which they

are using, as well as the high expectation which the subjects attach to dictionaries; i.e. in solving any translational problem that might arise during the performance of the translation task.

Of course, the subjects' disappointments with dictionaries are justifiable in the majority of cases, because a great number of unsuccessful consultations of reference materials are attributable to the limitations inherent in the dictionaries themselves, e.g. lack of thoroughness, and the failure to list information on potentially problematic lexical items (e.g. abbreviations and collocations). However, it is not always the case that unsuccessful consultation of a given reference material is indicative of the inadequacy in the dictionary itself. In some cases, the dictionary succeeded in providing an appropriate translation for a particular problematic item but the subject failed to benefit from this information. In other words, it can happen that the subject's low opinion of a certain dictionary is a misjudgement, e.g. when the negative comment is made in reaction to a failed consultation which is the result of the subject's misuse of the dictionary.

On the other hand, some subjects were less critical of bilingual and monolingual dictionaries, and even on occasions praised such dictionaries for their comprehensiveness and their role in solving translational problems, specially the bilingual dictionary *Al-Mawrid* which proved to be the most helpful source of reference in the present experiment. As an example of the positive attitude towards dictionaries, consider the following two excerpt taken from the protocol data of Faris and Faisal, respectively:

Example: (56)

... الآن نبحت في قاموس القارئ .. الصراحة انه رغم صغر حجمه إلا انه غني..veteran.

[checking the dictionary] محنك, خبير, محارب قدم...

...Now let's check the Al-Qari dictionary.. really, despite its small size, it is a rich dictionary.. *veteran* [checking the dictionary].. skilled, experienced, experienced warrior..

Example: (57)

[checking the قاموس المورد وهو من أفضل القواميس .. put on hold...

.. [dictionary يعني ينتظر على التلفون فترة طويلة...]

...*put on hold*.. we will consult Al-Mawrid dictionary as it is one of the best dictionaries [checking the dictionary].. it means wait on the telephone for a long time...

In (56) and (57), Faris and Faisal show a favourable attitude towards dictionaries. Apparently, this attitude is a reaction to the successfulness of the dictionary in providing appropriate information, which according to the subjects brought about solutions to the problematic lexical items under translation.

Thus, as can be seen in examples (55), (56), and (57), the subjects' approval and disapproval of dictionaries is determined by the extent of help offered by the dictionary under consultation. That is to say, subjects show a positive attitude towards dictionaries only when these dictionaries become helpful (i.e. by providing useful information on translational problems).

As far as trusting the information offered by dictionaries, the majority of subjects seem to take this information for granted, a behaviour typical of non-professional translators which can be attributed to the subjects' inexperience as dictionary users. That is, the subjects rarely question the appropriateness of the information provided by the dictionary against the context of the TL; i.e. they rarely test such information against the TT. This lack of awareness of the potential traps of dictionaries if misused may result in mistranslations and sometimes blunders that would badly affect the

quality of the translation (e.g. translating TT as التحول البرقي (telegraphic transfer) in examples (47), (48), and (49)).

Only on a few occasions did some subjects show some cautiousness when consulting reference materials by, for example, evaluating the suitability of the definitions listed in dictionaries, which can sometimes be contextually inappropriate or misleading. Zaid, for example, showed sensitive behaviour towards inappropriate dictionary information when he rejected the equivalents offered by the monolingual dictionary for the abbreviations *TT* and *ST* (*trust territory* for *TT* and *sanitary towel* for *ST*). As shown in his protocols, Zaid's immediate rejection of the translations offered by the dictionary for the two abbreviated items is based on his consideration of the contextual suitability of such equivalents, as it became evident to him that such equivalents were unsuitable for the present context.

The subjects' unwary trust of the information offered by dictionaries can be contrasted with that of the professional subjects of Al-Besbasi (1991) and Jaaskelainen (1987) who exhibited a noticeably cautious attitude towards reference materials, particularly the bilingual dictionary. One possible explanation for the difference in the sensitivity towards information offered by dictionaries between the subjects in the present study and those of Al-Besbasi and Jaaskelainen's experiments is the conspicuous difference in translation competence, experience, and skill in dictionary use. That is, because the subjects in Al-Besbasi and Jaaskelainen's studies were more skilled dictionary users (because of experience and type of training), they were more cautious towards the information offered by the dictionary, as opposed to the present subjects who had less experience as dictionary users, and accordingly took the information provided by the dictionaries consulted for granted.

5.6.2. The strategy of semantic analysis

The strategy of semantic analysis refers to the subject's attempt to clarify the meaning of a certain lexical item by means of paraphrasing or explanation, so as to understand the intended meaning and consequently provide the appropriate equivalent. According to Al-Besbasi (1991:147), using the strategy of semantic analysis would allow the translator to have a deeper understanding of the meaning of problematic lexical items (e.g. connotation).

As regards the frequency of occurrence, semantic analysis was ranked as the second most important problem-solving strategy in the present experiment (c.f. table 5.1). The subjects used this strategy 55 times, which constituted 9.5 % of the total number of strategies. The success rate of the strategy of semantic analysis is 34.5% (the strategy was used successfully 19 times), which constituted 8.8% of the total percentage of cases of success of all problem-solving strategies. Such a relatively low percentage of success reconfirms the assumption that employing a problem-solving strategy may or may not end in a solution to the translation problem.

This strategy was rarely used individually, as in the majority of cases it was coupled with other types of problem-solving strategies, particularly the use of the dictionary. The following are two illustrative examples of semantic analysis taken from the protocols of Hasan and Hameed, respectively:

Example: (58)

...after a half hour he was in a state of disbelief ... وبعد نصف ساعة أصبح في

disbelief.. معناها الحر في الكفر لكن believe .. disbelief .. حالة من ..

disbelief الظاهر معناها لا يصدق أو عدم التصديق...

...After a half hour he was in a state of disbelief.. after half an hour he became in a state of.. disbelief.. believe means think or have faith in.. disbelief.. its literal meaning is atheism but disbelief

apparently means doesn't believe or unbelief [amazement]...

Example: (59)

ST: Rare is the American who has not dreamt of dropping what he is doing and hitting the road.

... dropping ..dropping drop ..معناها نقطة أو يسقط شيء بس هنا وشلون معناها؟..

نشوف القارئ [checking the dictionary] .. فطرة يقع يتخلى عن يتراجع يتقهقر.. أي وحدة

من هاذولي؟ والله البلشه ..نشوف قاموس Advanced Oxford (checking the

[dictionary] .. واكثر معانيها! .. stop doing something, not use, decrease ..

يمكن يتخلى عن ...

... *dropping*.. *dropping*.. *drop* means a drip or something falls, but here what does it mean?.. let's check Al-Qari [checking the dictionary].. drip, fall, give away, fall behind, retreat.. which one of these? What a problem.. let's check Advanced Oxford [checking the dictionary].. a lot of meanings!.. *stop doing something, not use, decrease*.. may be it's give away...

As can be seen in examples (58) and (59), the semantic analysis of problematic lexical items can be used by the subjects of the present experiment as a problem-solving strategy with the objective of disambiguating the meaning of the words which the subjects find difficult to comprehend. The difference between the above two examples lies in the fact that while Hasan in (58) employs the strategy of semantic analysis individually, in (59), on the other hand, the strategy of semantic analysis is accompanied by other problem-solving strategies, namely the use of the bilingual dictionary and the monolingual dictionary. Thus in both cases, the individual and the complementary use of the strategy of semantic analysis resulted in the disambiguation of the problematic lexical items *disbelief* and *dropping*, and consequently the provision of two appropriate TT equivalents, namely عدم التصديق for *disbelief* and التخلي عن for *dropping*.

5.6.3. The strategy of guessing

The strategy of guessing refers to instances when the subject proposes, with some degree of uncertainty, a translation for a problematic lexical item. This strategy is usually identified via phrases like *I think, it seems, it could be, I guess*, etc.

Regarding the popularity of this procedure, the subjects resorted to the strategy of guessing 46 times (= 8% of the total number of strategies), of which only ten instances were successful (21.7%), accordingly constituting only 4.6% of the total percentage of cases of success of all problem-solving strategies. The subjects differed considerably in the number of times they used the strategy of guessing, ranging from 13 times by Hasan to only once by Ali and Faisal.

Apparently, as my data shows, the subjects in the present study usually use this strategy when other problem-solving strategies (e.g. the use of a dictionary) prove unhelpful, in which case the subjects seem tempted to haphazardly provide a TT equivalent, even if it stands a low chance of success. One striking example of this is found in Hasan's protocol data, as in the following excerpt:

Example: (60)

...الآن ما عندي الكلمة في القاموس.. خليني أعمل guess TT.. الظاهر إنها teacher time ...
...Now I don't have this word in the dictionary.. let me make a
guess.. *TT* seems to be *teacher time*...

As shown in his verbalised processing, upon translating the abbreviation TT, Hasan realised that he was encountering a translational problem. Therefore, as is the case with all the subjects, he resorted to the most favoured problem-solving strategy, namely the use of the bilingual dictionary so as to find an Arabic equivalent for the abbreviated lexical item *TT*. After a lengthy search in Al-Mawrid, Hasan was disappointed because he found no information in this dictionary which would allow

him to understand its meaning and ultimately find an appropriate equivalent (i.e. target text نص اللغة المترجم إليها). Thus, as shown in example (60), Hasan decides to make a guess, consequently providing what seems to be a 'hit-or-miss' translation (i.e. *teacher time*) which unfortunately turned out to be an inappropriate translation.

5.6.4. The strategy of providing alternative equivalents

The strategy of providing alternative equivalents was used by the subjects of the present study 32 times (5.5 % of the total number of strategies), of which only 12 instances were successful. This strategy refers to the instance when the subject proposes two (or more) TT equivalents for one problematic ST lexical item. As observed in the present protocol data, the subjects employ this strategy when a) they find that two TT equivalents are equally appropriate translations for the problematic item, in which case the subjects find it difficult to choose between these two alternatives, accordingly translating one ST item by two TT equivalents in the translation manuscript, or b) when they provide a TT equivalent at one stage of the translation which they find slightly unsatisfactory, and provide another TT equivalent at the editing stage to ensure the correctness of their translation. As is the case with all problem-solving strategies (with the exception of the use of dictionary), the strategy of providing alternatives is usually employed complementarily with other problem-solving strategies, particularly the use of reference materials. One revealing example of providing two or more translations for one particular item is found in Zaid's protocols, who uttered the following upon translating the problematic idiom *hit the road*:

Example: (61)

ST: Rare is the American who has not dreamed of dropping whatever he is doing and hitting the road

نشوف القاموس... American slang الظاهر إنما ..hitting the road?...

الأمريكي Webster ..[checking the dictionary] ..hitting the road.. زين

موجود... to travel. to leave.. يعني بمسك الطريق.. hitting the road .. خروجه

وهروبه وسفره...

...*hitting the road*?.. it seems to be *American slang*.. let's see the American dictionary, *Webster* [checking the dictionary].. *hitting the road*.. good, it's available.. *to leave*.. *to travel*.. it means go on a journey.. *hitting the road*.. his going out, his escape and his travel...

As can be seen in example (61), it is apparent that Zaid is encountering a translational problem, namely the idiom *hit the road*. To solve this problem, Zaid immediately initiates a dictionary search with the aim of understanding the meaning of the idiom and subsequently finding its appropriate Arabic equivalent. The dictionary offers two variants for the idiom, and Zaid is again faced with the difficult task of choosing one equivalent. Instead of choosing one variant, Zaid writes three TT equivalents (خروجه وهروبه وسفره), and at the editing stage crosses out one equivalent (i.e. خروجه) and settles on هروبه and سفره as equally potential translations for the idiom *hit the road*.

5.6.5. The strategy of inferencing and reasoning

According to Gerloff (1988:108), the strategy of inferencing and reasoning refers to any problem-solving activity that explicitly draws upon personal experience, world knowledge, or context (i.e. a problematic lexical item is seen in its context so as to

allow the subject to deduce additional information about its range of meaning). That is, subjects solve translation problems by using their reasoning and linguistic abilities (e.g. textual knowledge) as well as their world knowledge to deduce information either from the ST or from previous experience. The subjects resorted to the strategy of inferencing 30 times (= 5.2% of the total number of cases of problem-solving strategies) with an average success rate of 50% (= 15 times). Amongst subjects who employed this strategy, use ranged from 2 (the lowest) to 9 (the highest). Only two subjects (i.e. Omar and Faisal) refrained from using this strategy despite its relatively reasonable rate of success (50%). A case in point is Zaid's use of his world knowledge, personal experience, and context clues (jointly with the strategy of dictionary consultation) to correctly deduce the meaning of the abbreviation *VA* which he found problematic to translate without employing problem-solving strategies, as in the following excerpt taken from his protocol corpus:

Example: (62)

ST: when my father was a repairman in a VA hospital
 Virginia, a US .. [checking the dictionary]...وشي هذي اختصار؟..VA...
 ..state .. في مستشفى في Virginia .. زين.. دائما الأمريكان يميلون لاختصار الولايات مثل VA.
 PA اللي هي Pennsylvania وهلما جرا وخاصة إن Reader's Digest أمريكية...
 ...VA.. what is this, an abbreviation?...[checking the
 dictionary]..Virginia, a US state.. In a hospital in Virginia.. good..
 the Americans are always inclined to abbreviate the states, such as
 VA and PA which is Pennsylvania and so on, particularly since
 Reader's Digest is American...

Example (62) illustrates clearly how Zaid uses his world knowledge and contextual clues in the ST to infer the appropriate meaning of the abbreviation *VA*. Here, after consulting the dictionary, Zaid resorts to the strategy of inferencing and reasoning

with the objective of deducing extra information as well as evaluating the appropriateness of the TT equivalent *Virginia* which was offered by the dictionary, by drawing on personal experience and contextual clues. As shown in the above excerpt, Zaid's use of world knowledge is manifested by his comment: "the Americans are always inclined to abbreviate the states, such as VA and PA, which is Pennsylvania", while his use of contextual clues is exhibited by his comment: "particularly since Reader's Digest is American", reflecting the fact that *Reader's Digest* is printed in the ST assignment sheet. Thus, the employment of the strategy of inferencing and reasoning (complementarily with the use of dictionary) generated an optimal solution to the problematic abbreviation *VA*, and the result is an appropriate TT equivalent (i.e. (فرجينيا)).

5.6.6. The strategy of providing interim equivalents

The strategy of providing interim equivalents refers to instances when the subject, at a given stage of the translation process, translates a problematic lexical item into an interim TT equivalent. Apparently, the subject resorts to this strategy when he is faced with a translational problem for which he has no satisfactory translation, and accordingly proposes a tentative equivalent which will be subject to modification or confirmation at a subsequent stage of the translation process. This strategy is also a timesaving technique as it allows the translator to proceed with the translation process and not to engage in a lengthy search for an optimal solution, a behaviour which may disturb the linearity of translation processing. Although in the majority of cases, the subjects of the study provided one tentative equivalent for a particular problematic ST item, there are a few instances when the informants used two interim variants to

render one single item, because they intended to omit one of the two equivalents in the final translation (i.e. editing stage).

The subjects of the present study proposed tentative TT equivalents for potentially problematic lexical items 25 times, making up only 4.3% of the total number of problem-solving strategies. The employment of the strategy of providing interim equivalents generated solutions to translation problems in only 11 cases (= 44%), which constitutes only 5.1% of the total number of successful problem-solving strategies. All the subjects but one (i.e. Faris) used this strategy, ranging from 2 to 5 instances of occurrence.

Revealing examples of providing interim equivalents are easily observable in the protocols of Hameed and Hasan, to name but two subjects. Hameed for instance resorted to the strategy of providing a tentative equivalent upon translating the word *soul* (ST: 'those restless souls who populated the American continent') which temporarily posed a translational problem. He initially proposed أرواح (*spirits*), a tentative TT equivalent which he subsequently rejected and altered into أشخاص (*persons*), apparently a more appropriate TT equivalent. In editing his interim equivalent أرواح, Hameed resorted to the dictionary which provided adequate information from which he selected one variant which was ultimately written in the translation manuscript (i.e. أشخاص).

Hasan, on the other hand, proposed two tentative equivalents for the lexical item *frustrating* (ST: 'Tim spent a particularly frustrating morning on the phone being put on hold'), apparently with the objective of selecting one variant at a subsequent stage. That is, upon identifying *frustrating* as a potentially problematic item, Hasan resorted to the strategy of providing interim equivalents, i.e. he initially provided two interim

translations for *frustrating*, namely مزعج (annoying) and محبط (frustrating), which he wrote in his first draft. In the editing stage (the final draft) Hasan crossed out one of the two variants which he proposed earlier and settled on مزعج as a final translation for *frustrating*.

5.6.7. The strategy of compensation

The subjects of the present study employed the strategy of compensation 20 times (= 3.5% of the total number of problem-solving strategies) with an average success rate of 40%. This constitutes only 3.7% of the total number of successful cases of problem-solving strategies (= 217 successful cases). As shown in the subjects' protocol data, subjects resort to this strategy for two purposes, which are originally identified by Al-Besbasi (1991) as follows:

Subjects sometimes feel the need to add information in their translations so as to compensate for any potential loss of information be it real or imagined. Sometimes the information is added simply for the sake of clarity which the subject feels is necessary. (Al-Besbasi 1991:153)

In the present experiment, the example that best illustrates the use of the strategy of compensation is the word *Halloween* which proved a troublesome for all subjects. In all cases, the subjects immediate problem-solving strategy was the use of dictionary which in the majority of cases provided an apparently appropriate TT equivalent (حلولين). However, despite the fact that the use of reference material provided adequate information, eight of the total number of subjects resorted to the strategy of compensation for the sake of clarity, and to compensate for what they thought to be a

potential loss of information. Thamir, for example, produced the following remarks upon translating the word *Halloween*:

Example: (63)

Halloween .. نكتب عيد حلا وين .. نكتب بين قوسين تفسير له .. عيد من أعياد النصارى
يوافق ٣١ أكتوبر ...

Halloween.. we write Halloween festival .. we write an explanation between brackets for it.. one of the Christian festivals corresponding to the 31 of October...

As can be seen in example (63) above, Thamir states explicitly that he will “write an explanation between brackets”, apparently because he feels there is a loss of information and lack of clarity in *حلا وين* which can be reduced if a description is added.

Similarly, seven subjects employed the strategy of compensation upon translating the word *Halloween*, as shown in the following TT versions and their back-translations:

Khalid’s translation:

عيد "هالوين" العظيم ويظهر في الصورة فرع زينت على أشكال وجوه وتعمل في هذا العيد.

Back-translation: The great festival of “Halloween” and pumpkins are shown in the picture which are made in the form of faces for this festival.

Ali’s translation:

حالوين- عيد خاص أشبه ما يكون بحفلة تنكرية.

Back-translation: Halloween- a special festival similar to a party of disguise.

Thamir’s translation:

عيد هلا وين (عيد من أعياد النصارى يوافق ٣١ من أكتوبر من كل عام يشترك فيه جميع القساوسة ورجال الدين).

Back-translation: Festival of Halloween (one of the Christian festivals which corresponds to 31 of October every year which all Saints and religious men take part in).

Faris' translation:

"هلا وين" هي عبارة عن عيد عند النصارى والطوائف الأوربية أو لعلها كلمة تقال في العيد مساء اليوم التالي بعد الواحد والثلاثين من شهر أكتوبر.

Back-translation: "Halloween" is a festival for Christians and European nations or it could be a word that is said in the festival in the evening the next day after October 31st.

Faisal's translation:

"احتفالات عيد القديسين ومغامراتها".

Back-translation: "Celebrations and adventures of Saints' festival"

Zaid's translation:

"الحالوين" حفلة تقام في ٣١ أكتوبر كعيد للأطفال يلبسون الجديد ويمثلون أعمالا نكتية وطرائف على الجيران.

Back-Translation: "Al-Halloween" is a festival which takes place on 31 of October as children festival when they wear new clothes and perform funny acts on the neighbours.

Hameed's translation:

هالوين الترفهية.

Back-Translation: The recreational Halloween

Hasan's translation:

"حالوين" عيد التنكر.

Back-Translation: "Halloween" the festival of disguise.

As can be seen in the above eight translations of the word *Halloween*, the subjects added some definition for the transliterated Arabic equivalents هالوين and حالوين .

Apparently, the subjects' addition of the explanations is largely due (as can be inferred from the subjects' protocols) to their belief that the transliterated Arabic equivalents (i.e. هالوين and حالوين) which they initially proposed are not comprehensible

to the Arabic readership. Thus the only solution to this problem will be to apply the strategy of compensation through adding definitional information with the objective of clarity, as well as compensating for any potential translational loss. Here it can be noted that the subjects differed considerably in the extent of the explanation, ranging from a single word by Hameed to a lengthy visual description of the intended meaning of the word *Halloween* by Khalid.

5.6.8. The strategy of copying

The strategy of copying refers to instances where the subject encounters a translational problem for which he finds no proper TT equivalent and he literally transfers the same ST item into the translation manuscript without making any changes to it. That is, the problematic ST item is copied into the TT in its original alphabetical form (i.e. SL alphabet). As can be observed in the present protocol data, in the majority of cases, the subjects resorted to the strategy of copying only when other problem-solving strategies (e.g. the use of dictionary) proved useless.

The subjects used this strategy particularly in dealing with problematic abbreviations which proved insoluble in the majority of cases even after the employment of problem-solving strategies, such as consulting reference material which provided little information on abbreviations. One possible explanation for the subjects' recourse to this strategy is that they simply wanted to fill in potential gaps in the TT even by haphazard TT equivalents.

The analysis of the protocols reveals that the subjects used the strategy of copying to generate solutions in 17 instances (= 2.9% of the total number of problem-solving strategies) of encountering a translational problem. However, despite its use as a problem-solving strategy by the subjects, the employment of the strategy of copying

was a total failure, because it did not lead to the solution of any translational problems, and even worsened the quality of the translation to varying degrees. One evidence of the negative effect of the strategy of copying on the quality of translation is found in the translation of Faris who was the most frequent user of this strategy (i.e. 9 out of the 17 total instances = 52.9%), and produced the worst translation of all subjects.

The most revealing example of the use of the strategy of copying in Faris' verbalisations is shown in the following excerpt:

Example: (64)

ST: where there is a global correspondence between the textual units of the *ST* and those of the *TT*.

... بينما يوجد هناك تشابه طفيف بين محتويات الوحدة في *ST* وتلك التي في ال *TT* .. ما أدري
حطينا الاختصارات كما هي وهذي شكلها مشكلة...

... where there is a slight similarity between the contents of the unit in *ST* and those in the *TT*. I don't know, I translated the abbreviations as they are, and this seems to be a problem...

Example (64) shows clearly Faris' use of the strategy of copying to translate the abbreviated items *ST* and *TT* which proved difficult to translate. Here, it should be noted that prior to the use of the strategy of copying, Faris used reference materials immediately after realising the problematic nature of the two abbreviations but found no useful information. Thus as a last resort, Faris reluctantly employed the strategy of copying despite his implied knowledge of its limitations, as manifested by his comment: "I don't know.. I translated the abbreviations as they are and this seems to be a problem." As a result, Faris failed to produce a satisfactory translation for the problematic abbreviations, despite his strategic use of dictionaries and copying techniques.

5.6.9. The strategy of transliteration

In translating a problematic lexical item, some of the subjects in the present study resorted to the strategy of transliteration as a problem-solving technique. This strategy refers to the case when the subject takes over a problematic lexical item from the ST into the TT through transcribing the ST item into corresponding letters of the TL. That is, the ST item is “adapted to conform to the phonic/graphic conversions of the TL” (Hervey and Higgins 1992:29). In principle, the strategy of transliteration can be beneficial for translators (especially in translating names) when there is no TT equivalent or a standard transliteration in the TL that has been established by earlier writers and dictionary compilers.

Despite the fact that the strategy of copying and the strategy of transliteration have some features in common, these two strategies can be differentiated in that: while the strategy of copying involves taking over a problematic ST item into the TL without making any change to its SL phonic/graphic form, the strategy of transliteration by contrast, involves the introduction of some changes, i.e. by transferring an ST item into the TT through transcribing the ST item into corresponding letters of the TL.

The subjects of the present study used the strategy of transliteration only 12 times (= 2.1% of the total number uses of problem-solving strategies) with an average success rate of 25% (= 3 successful uses of the strategy of transliteration). Some subjects (four subjects) refrained from using this strategy, possibly due to its low rate of success as it helped in only 1.4% of the total number of successful cases in solving translation problems. Apparently, one major reason for the low degree of success of this strategy is that in the majority of cases, the subjects transliterated some problematic lexical items which they failed to realise did not need transliteration, because they had standard equivalents in the TL.

The analysis of the subjects' protocols reveals that they resorted to the strategy of transliteration only when other problem-solving strategies proved useless, particularly the use of reference materials. Thus, one possible explanation for the subjects' recourse to the strategy of transliteration, despite its potential failure, is the fact that they have no other alternative and that they are reluctant to leave gaps in the translation manuscript.

The best examples of the successful as well as the unsuccessful use of transliteration as a problem-solving strategy are found in the protocols of Hasan, who produced the following two verbalised excerpts upon translating the problematic items *diamicron* and *mucocutaneous*, respectively:

Example: (65)

ST: Diamicron: [The side effects are those which usually occur with this type of drug: they are mucocutaneous reactions]

... Diamicron .. ويش معنى Diamicron ..؟ أعتقد إن cron هذي تعني طب و R تعني علامة مسجلة .. Diamicron.. وش معناه؟! .. ما أدري ما سمعت بها أبد.. لعلي أجدها هنا [checking the dictionary] .. Diamicron .Diamicron .Diamicron .. ليست موجودة .. أكتبها كما هي (ديمكرون)...

...Diamicron.. what is the meaning of *Diamicron*?.. I think that *cron* means medicine and *R* is a trade mark.. what does *Diamicron* mean? .. I don't know, I have never heard of it.. I hope I could find it here [checking the dictionary] .. *Diamicron*. *Diamicron*. *Diamicron*.. it is not available.. I'll write it as it is (ديمكرون)...

Example: (66)

... mucocutaneous .. وش معنى mucocutaneous ..؟ let me check it up .. [checking the dictionary] .. mucocutaneous .mucocutaneous .. الحقيقة mucocutaneous بحثت عنها في Longman وقاموس القارئ العربي ولم أجدها.. اعتقدت لي لها متخصص .. أبي أترجمها كما هي .. reaction ردة فعل

.. reaction .reaction . reaction.. [checking the dictionary]

(أعراض مالتكونيس)...

...*mucocutaneous*.. what is the meaning of *mucocutaneous* ?.. *let me check it up* [checking the dictionary].. *mucocutaneous, mucocutaneous, mucocutaneous*.. in fact I searched for *mucocutaneous* in *Longman* and the *Al-Qari Arabic dictionary* with no success.. I think it requires a specialist.. I will translate it as it is.. *reaction*, tat is a response [checking the dictionary].. *reaction. reaction. reaction*.. that is a response.. [أعراض مالتكونيس] ...

As can be seen in the above two excerpts, Hasan is pondering how to translate the two problematic items *diamicron* and *mucocutaneous*. In the first instance, upon identifying *diamicron* as a translation problem, Hasan immediately employs a number of problems-solving strategies with the aim of bringing about a solution to the problem (i.e. understanding the meaning of the problematic item and finding its TT equivalent). Initially, he resorts to the strategy of semantic analysis, as manifested by his remark: "I think that *cron* means medicine", but this strategy proves useless; then he checks the dictionary, a more promising problem-solving strategy, but again this strategy turns out to be unsuccessful, as it provides no information. Thus, as a final resort, Hasan uses the strategy of transliteration, which fortunately proves helpful, as it leads to the production of an acceptable TT equivalent, namely ديمكرون. In the second excerpt, on the other hand, Hasan's employment of the strategy of transliteration turns out to be unsuccessful. Here upon recognising the problematic nature of the word *mucocutaneous*, Hasan initiates a dictionary search with the aim of understanding the meaning of *mucocutaneous* as well as finding its TT equivalent, and again his consultation proves unsuccessful because of the unavailability of the information. Consequently, when Hasan realises the insolubility of the problem, as shown by his

comment: “I think it requires a specialist.. I will translate it as it is”, he finds himself tempted to use the strategy of transliteration which results in an unsuccessful translation (i.e. مالتكونيس), because of the availability of a standard TL equivalent (i.e. تفاعلات جلدية) which Hasan failed to provide, even after using problem-solving strategies.

Similarly, Zaid, the most competent subject, resorted to the strategy of transliteration at the editing stage in his attempt to translate the problematic item *mucocutaneous*, but his use of the strategy was unsuccessful, as evidenced by the fact that he wrongly translated *mucocutaneous* as موكو كوتانيوس, after commenting:

Example (67)

... ما أدري وش معناها.. نكتبها بالعربي موكو كوتانيوس .. الكلمات الطبية صعبة جدا...

... I don't know its meaning.. I shall write it in Arabic as موكو كوتانيوس

.. the medical terms are very difficult...

5.6.10. The strategy of avoidance

The strategy of avoidance refers to the ambivalent attitude of some subjects towards unfamiliar or unavailable TT equivalents, i.e. when they decide to reject unfamiliar TT equivalents, or when they refrain from providing a haphazard translation for an unsolved translation problem, consequently leaving the problematic lexical item untranslated (i.e. leaving a gap in the translation manuscript). One possible explanation for the subjects' recourse to the strategy of avoidance is that they might use it as a 'playing-it-safe' technique, because of the assumed belief that leaving a gap in the translation manuscript is less harmful than writing a random or unfamiliar TT

equivalent which may result in the production of an odd translation, thus having a negative effect on the overall quality of the translation.

The strategy of avoidance is also reported in Kiraly (1990:121) who observed that some of his subjects, at some stages of the translation process decided to eliminate certain units and not to attempt to render them at all in the translation.

Only six subjects resorted to the strategy of avoidance (12 times = 2.1% of the total number of uses of problem-solving strategies), and their use of this strategy usually followed the employment of other problem-solving strategies which turned out to be unsuccessful.

The most striking example that illustrates the employment of the strategy of avoidance when facing unsolved translation problem is found in Thamir's protocols, as shown in the following excerpt:

Example: (68)

ST: [It is the verbal Get-Out- of Jail card for the '90s.]

..get out...هنا؟ وشلون تجي هنا؟..get out of jail card ..كلامي..لفظي..verbal...

يخرج..jail..سجن.. verbal ..[consults the dictionary]..not written..ما هي

معقولة بطاقة لفظية للخروج من السجن.. مشكلة الexpressions ذولي حتى لو عرفت معنى كل

كلمة المعين كله ما أقدر أجيبه.. والله اني ما أدري عمجزنا عنها.. ما هنا إلا نخليها.. وش نسوي به؟!...

...verbal.. oral.. verbatim.. *get out of jail card*.. how can we say that?.. *get out*.. leave.. *Jail*.. prison.. verbal..[consults the dictionary]..not written.. it is not logical to say verbal card for getting out of jail.. the problem of these *expressions* is that even if I know every word, I can't get the whole meaning.. I really don't know, I can't get it.. we better leave it.. what shall we do with it?...

Example (68) illustrates clearly the use of avoidance in dealing with translational problems which prove insoluble. Here, it is apparent that Thamir is encountering a

translation problem, i.e., understanding and finding TT equivalent for the problematic expression *get out of jail card*. After recurrent attempts to find an Arabic equivalent through the employment of different problem-solving strategies at different stages of the translation process (e.g. the use of dictionary and the strategy of reasoning), Thamir begins to realise the insolubility of this translational problem. Accordingly, he decides not to produce a random TT equivalent, but to leave a gap in the translation manuscript. He, therefore, utters a decision to this effect: “I don’t know I can’t get it.. we better leave it.. what shall we do with it?”

5.6.11. The strategy of deferment

The strategy of deferment is employed by some of the subjects in the present study (4 subjects) upon encountering a translational problem for which there is no immediate solution. In this case the subject leaves the problematic item temporarily untranslated with the aim of dealing with it at a later stage of the translation process. The most likely reasons for using this strategy are: a) that it allows the subject to proceed with the translation process without being interrupted by a superfluous search for solutions to the problematic item under translation; b) it works as a time-saving technique; and c) it gives the subject the chance to have extra feedback in subsequent stages of the translation process, particularly in the editing phase of the task performance.

Despite a partial similarity with the strategy of providing an interim equivalent, the strategy of deferment is distinct in that the subject proposes no tentative translation for the problematic lexical item, but rather leaves a momentary gap in the translation which he fills out in a subsequent stage.

A total of 10 instances of deferment were identified in the protocols of four subjects (i.e. Zaid, Ali, Faisal, and Hasan). Only two of these instances ended in generating a successful solution to the translation problem.

Zaid, for example, used the strategy of deferment on two occasions when he failed (at the writing stage) to provide immediate TT equivalent for two translational problems. In the first instance, which involved the translation of the problematic item *Halloween* (example 69), the employment of the strategy of deferment was successful, as manifested by Zaid's decision to leave *Halloween* temporarily untranslated, and his ability ultimately to provide an acceptable TT equivalent at the editing stage of the translation process. In the second instance on the other hand, Zaid's use of the strategy of deferment to deal with the problematic abbreviation *TT* (example 70) was unsuccessful as he failed to provide an appropriate TT equivalent at the subsequent stage of editing. The following are the two excerpts from Zaid's protocol which illustrate the use of the strategy of deferment:

Example: (69)

... Halloween ... نتركها ونرجع لها بعدين... (الحالوين TT:)...

... *Halloween*.. We leave it and come back to it later on.. (TT: الحالوين)...

Example: (70)

... TT ... ما أدري ویش معناها.. حط فراغ وبعدين ترجمها...

... TT.. I don't know its meaning.. I'll leave a gap and translate it later on...

5.6.12. The strategy of word-segmentation

The strategy of word-segmentation is the least favourite problem-solving strategy among the subjects of the present study (along with the strategy of deferment), as it

was employed to deal with only 10 instances of translational problems. This strategy refers to the technique of dividing a problematic lexical item into smaller segments with the aim of disambiguating its meaning through the analysis and search for the meaning of its parts.

A revealing example that illustrates the use of the strategy of word-segmentation is found in Zaid's protocol data, as shown in the following excerpt:

Example: (71)

ST: [At the extreme of SL bias is interlineal translation].

...[checking the bilingual dictionary] ..interlineal ...

متداخل ..inter .. طيب نقسم الكلمة ..[checking the monolingual dictionary]

لكن lineal ..[checking the bilingual dictionary] .. أيوه معناها خطي أو مباشر ..

التداخل المباشر ممكن ؟ .. ترجمة التداخل المباشر ...

...interlineal .. [checking the bilingual dictionary]...

[checking the monolingual dictionary].. OK, let's divide the word..

inter.. is overlapping but lineal ..[checking the bilingual dictionary]..

yes, it means on a line or direct.. possibly, the direct overlap?.. the direct overlap translation...

As can be seen in example (71), Zaid is finding it a strained task to translate what seems to be a totally unfamiliar word. Here, after realising the problematic nature of *interlineal*, Zaid instantaneously initiates a simultaneous search in both the bilingual and monolingual dictionaries which fail to provide any useful information. Therefore, Zaid employs the strategy of word-segmentation, as evidenced by his fragmentation of the word *interlineal* into two parts (i.e. *inter* and *lineal*). Apparently, his aim in dividing the problematic item into two parts is to try to clarify its meaning by searching for the meaning of its parts through analysis and dictionary consultation. Unfortunately, Zaid's use of the strategy of word-segmentation was unsuccessful as it provided a translation which turned out to be inappropriate.

CHAPTER SIX

6. Evaluation of translation product and process

6.1. Introduction

In chapters 4 and 5, translational problems and problem-solving strategies were thoroughly discussed. In this chapter, a quality assessment of the subjects' finalised translations will be made, as well as a detailed description and evaluation of each subject's translation processing that led to the production of the translation end-product. The aim of evaluating subjects' translations is primarily to highlight the effect of translation problems and problem-solving strategies on the final product. This is because translational problems and errors are interrelated, as errors are often caused by problems. That is, linking up translational problems and strategies with the final product will help us to isolate potential translation problems and successful strategies for training purposes: i.e., in a translation training programme, translator trainees are to be instructed in how to identify and deal with potential problems which negatively affect the quality of translation, as well as successful problem-solving strategies which contribute to the improvement of translation quality. Evaluating the subjects' translation in the present experiment will also serve a global aim: i.e. to evaluate the subject's translation competence so as assess the progress of the translation training programme which they undertook in their previous years at the university. This is because the level of translation competence is a true reflection of the quality of translation courses. It is hoped that diagnosing the strengths and

weaknesses of translation programme will be a step forward towards finding a remedy for shortcomings as well as reinforcing the good points in the programme.

Along this line, Kussmaul (1995) in his empirical study of translation processes criticises some TAP studies for not combining the analysis of translation processes and the evaluation of translation product. He maintains that:

... there is no reason for this kind of restraint. If we want to provide data for translation teaching, we cannot abstain from evaluating the translations which are produced at the end of the processes observable in the protocols. If the translations are unsatisfactory, then one may with some justification expect that the processes leading up to them are problematic too. If the translations are of high quality, the subjects will most likely have used appropriate strategies. (Kussmaul 1995:8)

The importance of evaluating translation product in TAP studies which are aimed at investigating translation processes is also emphasised by Jaaskelainen (1991) who points out that:

.... one of the purposes of empirical research on translation processes is to identify the features of processes resulting in good translation products; that is, to investigate empirically what constitutes translation competence. This naturally presupposes a knowledge of the quality (and the hierarchy) of the translations produced by the subjects. (Jaaskelainen 1991:97)

The operational criteria by which the subjects' translations are assessed are based on two types of quality assessment techniques. First, the subjects' translations will be evaluated by the experimenter of the present study on a global basis through the implementation of *a global quality assessment method*. This technique is based on Kiraly's quality assessment model (1995:83) which rates the quality of translation on a 5-point scale, as shown in table 6.1. The only modification to Kiraly's scale of

assessment lies in the fact that while the subjects in Kiraly’s study were given a specific assignment (i.e. translating for an employer), the subjects in the present study were not given a specific assignment. Thus their translations are not expected to meet such a requirement.

Table 6.1: Kiraly’s five-point scale for rating translations

Scale rank	Description
1	This is a totally unacceptable translation.
2	This is a poor translation. It would require major improvements before it could be submitted to an employer.
3	This translation is marginally adequate. It has a number of errors and would require a moderate amount of work to prepare it to be submitted to an employer.
4	This is basically a good translation. It does have some minor errors but they could be eliminated quite easily.
5	This is a very good translation. It contains no errors with respect to the norms of the TL and it is a functionally acceptable translation of the source text.

The investigator evaluated the end product of each subject in terms of its overall accuracy with respect to the norms of the TL (i.e. Arabic) and its functional adequacy within the translated text.

Second, individual mistranslated units of the subjects’ translation end-product will be assessed via the use of *error analysis technique*. According to Kussmaul (1995:5), error analysis can be divided into three stages: a) description of errors (looking at the symptoms), b) finding reasons for the errors (diagnosis) and c) searching for solutions (therapy). He adds that in assessing translational errors, there are two opposing views among translation evaluators. The first one is the typical foreign language teacher’s view which focuses on the word as an isolated unit as well as looking at the student as a foreign language learner and not as a translation trainee. This kind of evaluation

does not take into account the communicative function of textual units. The second view, by contrast, emphasises the communicative function of the translation unit; i.e. the distortion of the meaning is seen within the text as a whole and with regard to the TT readership. In other words, with the foreign language view, translations are assessed with comprehension goals in mind, whereas in a communicative view, translations are evaluated with production goals in mind.

In the present study, the second view (communicative point of view) will be adopted throughout the error analysis of the subjects' final product; that is, the erroneous units are evaluated in terms of the extent to which they impair communication. The major reasons for adopting the communicative approach (the professional translator's view, Kussmaul 1995:128) are a) the investigator's belief that translation should be viewed as a discipline in itself (taking the TT audience into account by having production goals in mind), and not as a language exercise where emphasis is laid on learning new vocabulary via translation, and b) the fact that the subjects in the present study are being trained to be translators (i.e. they are translation trainees).

Thus, the detailed analysis of the subjects' mistranslations in the present study will be focused on those lexico-semantic errors that seriously disturb the textual coherence of the TT.

The other part of evaluation in the present chapter will focus on the subjects' global behaviour during their task performance, such as text processing and editing. The main purpose of this assessment is to relate the subjects' general translation activities to the quality of the translation.

6.2. The assessment

In this section, a global assessment of each subject's end translation will be presented. This will be followed by a detailed analysis of the main translational errors which significantly impair the readability of the TT. Additionally, the subject's principal patterns of behaviour (global translation processes) will be presented with the aim of relating them to the quality of the translation. (The subjects will be arranged according to their translation quality):

6.2.1. Zaid

6.2.1.1 Global assessment

The analysis of the subjects' end product revealed that Zaid produced the best translation among all subjects. His final translation was rated by the investigator of the present study as *a generally good translation* (i.e. in the 4 band on Kiraly's scale), with a number of errors that had a moderate effect on the overall quality of translation. It was also lauded by the evaluator for its communicative appropriateness and overall textual cohesion. On the whole, the line of thought of the TT was rationally clear; i.e. the reader of the TT would be able to understand most of the intended messages that were contained the STs.

6.2.1.2. Error analysis

Despite the fact that Zaid's translation was rated as a good translation, it nevertheless contained a number of serious lexico-semantic errors, which may slightly impede the readability of the text (or segment of text) under translation, consequently reducing the overall quality of the translation as shown in the following table:

Table 6.2: Zaid's main translational errors

<i>Text</i>	<i>ST unit</i>	<i>Subject's translation</i>	<i>Recommended translation</i>
B	Stick it out	إنهاء (termination)	استمرار (continuation)
B	Battle of wills	معركة بين العزائم و إرادته في نفسه (a battle between determinations and the will inside him)	في حالة تحدي (a state of challenge)
C	mucocutaneous reactions	ردود فعل موكوكوتانيوس (mucocutaneous reactions)	تفاعلات جلدية (mucocutaneous reactions)
D	has not dreamed	يحلم (dream)	لم يحلم (has not dreamed)
D	restless	أفذاذ (unique characters)	رحالة (on the move)
E	miscommunication	فقدان الاتصال (loss of communication)	سوء الفهم (misunderstanding)
E	Missed the wedding	عدم زواج (non-marriage)	لم يحضر الزواج (failed to attend the wedding)
E	Clients	موكلون (lawyer's clients)	زبائن (customers)
F	SL	اللغة الثانية (second language)	اللغة الأصلية (source language)
F	Interlineal translation	ترجمة ما بين السطور (between the lines translation)	ترجمة حرفية (literal translation)
F	TT	تدريس الترجمة (teaching translation)	نص اللغة الهدف (target text)
F	TL grammar	تدريس قواعد اللغة (teaching language grammar)	قواعد اللغة الهدف (target language grammar)
F	ST	اللغة الرئيسية (main language)	نص اللغة الأصلية (source text)
F	Bias	تعصب (extremism)	التحيز (favouritism)

As can be seen in table 6.2 above, Zaid produced a number of serious lexico-semantic errors, which reduced the quality of his translation. In fact, most of Zaid's errors are attributable to the problematic nature of the lexical items under translation, as well as the inadequacy of dictionaries, i.e. in failing to provide adequate information on problematic translational units. This is because, on the whole, Zaid indicated a better understanding than the rest of the subjects of what the authors were getting at, as well as the fact that he showed a relatively more sophisticated global behaviour in carrying

out the task of translation. His protocols also suggested a higher level of foreign language and translation competence, in comparison with other subjects.

Again, despite the fact that Zaid's overall translation was given a "good" score, the quality of his translation is variable from text to text. The quality of each individual text is determined by its readability as well as the number of serious errors that impair understanding. In text B for example, Zaid made two serious errors which significantly reduced the quality of his translation. The first one was caused by the idiom *stick it out* that he found unfamiliar, in which case he immediately resorted to the bilingual and monolingual dictionaries which provided no information. Consequently, Zaid depended on his translation intuition and erroneously reversed the meaning of the problematic idiom in his final translation; i.e. he failed to provide the appropriate TT equivalent استمرار (continuation) and opted for an inappropriate translation, إنهاء (termination). The second error in text B was caused by the unfamiliar metaphorical use of *battle of wills*. Again, in his attempt to disambiguate the meaning of this problematic collocation, Zaid employed problem-solving strategies but with no success. Therefore, he ultimately decided to go for a literal TT version of the metaphor as well as an explanatory phrase to compensate for any loss of meaning, and the result was an unsuitable translation.

In text C, on the other hand, Zaid made only one serious erroneous translation despite the technical nature of the text (i.e. it contained medical terminology). This error was caused by the medical term *mucocutaneous* whose translation into Arabic proved difficult even after the use of dictionary, which turned out to be inadequate. Consequently, Zaid resorted to the strategy of transliteration. The result was an inappropriate TT equivalent, موكوكوتسايوس. Here, Zaid's unsuccessful use of

transliteration is due to the fact that *mucocutaneous* has a standard Arabic equivalent which he failed to recognise, namely تفاعلات جلدية.

Regarding text D, Zaid's untypical lack of concentration led to the production of an inaccurate translation of the lexical items *has not dreamed* which impeded its intended message in the ST. Here, Zaid failed to transfer the negated aspect of the verb *dream* into the TT and mistakenly opted for an affirmative Arabic version, يحلم (to dream). Similarly, he incautiously mistranslated *restless* (on the move) as أفذاذ (unique characters).

In translating text E, Zaid produced three serious errors that considerably reduced the degree of coherence in the TT. First, he failed to realise the connotative meaning of the word *miscommunication* (i.e. misunderstanding), and opted for a literal TT version (i.e. فقدان الاتصال loss of communication) which turned out to be an inappropriate translation. Second, Zaid unexpectedly translated a straightforward ST unit (i.e. missed the wedding) into a totally irrelevant TT equivalent (i.e. عدم زواج non-marriage), thus resulting in a mistranslation which apparently resulted from his lack of concentration. Third, the word *clients* (customers) was inappropriately translated as موكلون (lawyer's clients). Judging from his protocols, Zaid's mistranslation is the result of his unawareness of the polysemous nature of the word *client* as well as his failure to deduce the potential meaning from the context (i.e. he failed to consider the word *vendor* (seller), an obvious contextual clue as it clearly indicates that the word *client* is used here to denote a customer and not a lawyer's client).

Text F caused the largest volume of errors which dramatically reduced the readability of the TT. Because of this, it was considered by the evaluator as the worst translation

that Zaid produced. As can be seen in table 6.2, most of these errors were caused by unfamiliar abbreviations. In dealing with these problematic abbreviations, Zaid made ample use of the dictionary, but in all cases his search ended in a disappointment. Therefore, Zaid resorted to his translation intuition as well as contextual clues to infer the meaning of these abbreviated items. As a result, he erroneously translated these abbreviations into inappropriate TT equivalents which led to a noticeable distortion of the intended message of the ST. Moreover, the faulty translation of *interlineal* as بين السطور (between lines) is the result of Zaid's unjustified trust in the information offered by the dictionary, without testing this information against the context of the translation. The erroneous translating of the word *bias* as تعصب (extremism) is also the result of Zaid's misuse of the dictionary when he failed to benefit from the appropriate variant offered by the dictionary (i.e. المحياز favouritism) which he irrationally rejected and ultimately settled on an inaccurate TT equivalent. Here, it should be noted that in addition to the mistranslations listed in table 6.2 above, Zaid made a number of other less serious errors, such as circumlocutions (e.g. two variants), omissions, and slightly inaccurate renditions.

6.2.1.3. Global behaviour

6.2.1.3.1. Translation processing

The analysis of Zaid's protocols revealed that he employed the most linear approach to the ST, translating individual units as they appeared sequentially in the text, suggesting interim solutions for problematic items, and making some backtracking for previously unsolved problems.

His translation processing can be roughly divided into three stages: a) the pre-writing stage, b) the writing stage and c) the editing stage. In the pre-writing stage, he proceeds through the ST once with the aim of having a global understanding of the topic of the text under translation, as well as identifying potential problems. He then reads the entire ST a second time and checks some unfamiliar lexical items in reference materials and proposes tentative translations for some problematic units. The writing stage represents the main run-through where most of the translation task is carried out, e.g. looking up words in dictionaries, text analysis, TT production, and outright corrections. The editing stage is the shortest phase of the translation process. This includes an evaluative reading of the TT as well as an occasional editing in cases where inconsistencies are detected. Apparently, this revision process is aimed towards improving the end product through a global evaluation of the translation, as well as identifying and dealing with inadequately solved problems.

6.2.1.3.2. Patterns of behaviour

Based on the analysis of the protocol data, the most observable patterns of Zaid's global behaviour during his task performance are as follows:

- a) He showed a reasonable degree of sensitivity towards potential translation problems as evidenced by the large volume of problems he identified (= 34 problems) as well as the abundant use of problem-solving strategies (= 70 instances) which he employed with the objective of bringing about solutions to these translation problems. Apparently, Zaid's noticeable awareness of potential problems and his tendency to employ a large number of problems-solving strategies is the result of the evaluation of his translation against high standards. Additionally, he proved to be the most successful problem-solver as 41(=58.6%)

of his use of problem-solving strategies ended up in successful solutions to problematic lexical items;

- b) He displayed an exceptional behaviour in relation to the editing process. He is one of the few subjects who produced a preliminary draft and consequently produced a final translation in which he introduced some changes with the aim of improving the quality of the translation. This behaviour may indicate that he has production goals in mind; that is, he takes the target audience into account. He used different types of editing, such as outright correction in the writing stage in dealing with surface inconsistencies, delayed changes to some inadequately solved problems in the editing stage, and a final evaluative reading to check the coherence of the TT. Here it can be said that Zaid's use of a draft may corroborate Seguinot's (1991) finding that some excellent subjects produce prefatory drafts, while others do not;
- c) He used monitoring (i.e. a verbatim repetition of a SL item) with apparently two purposes in mind: (a) to work as a mnemonic aid in an attempt to retrieve potential equivalents and (b) to force the spontaneous production of an interim translation solution (Kiraly, 1995:76) and b) to hold the text together;
- d) He behaved in a way which gives an impression of a highly efficient dictionary user who knows how to successfully extract information from the dictionary. The speed at which he used the dictionary was relatively high in comparison with the rest of the subjects. Likewise, he showed a cautious attitude towards some of the information offered by reference material and only on a few occasions did he take the variants offered by the dictionary for granted without considering their appropriateness. As pointed out earlier, most of his errors are attributable to the inadequacy of dictionaries and not to a lack of competence or inexperience in

dictionary use. He also showed a unique technique in using reference material; that is, using both the bilingual and monolingual dictionary in a complementary fashion, with the objective of ensuring the appropriateness of the information provided by the reference material under consultation.

- e) He indicated some textual-awareness as manifested by his explicit remarks about the contextual unsuitability of some proposed TT equivalents which led to the refinement of these variants. He also made some use of contextual clues in inferring information which ended in successful solutions to translational problems;
- f) He drew successfully on his world knowledge and translation intuition in dealing with some problematic lexical items. The most revealing example is his exceptional understanding of the metaphorical meaning of the *expression verbal get-out- of-jail card*, as he was the only subject who successfully interpreted it as referring to the Monopoly game (i.e. the card for easy escape from a critical situation);
- g) He left a gap in the translation manuscript as an interim solution for insoluble problems (e.g. some abbreviations), and in the closing stage of the translation task performance provided 'hit-or-miss' TT equivalents as a last resort;
- h) He demonstrated some dissatisfaction with dictionaries' shortcomings, particularly in dealing with abbreviations and technical terminology.
- i) He exhibited a tendency to add synonyms and exegetic phrases in the TT to compensate for any loss of information and to clarify potentially ambiguous equivalents.
- j) He developed a timesaving strategy, e.g. leaving corrections until the editing stage as well as the abandonment of problem-solving strategies which he thought to

waste time, as he worked against the clock. In general, he showed a relatively good management of time.

k) He showed an evaluative attitude towards a number of proposed solutions for translational problems.

6.2.2. Hameed

6.2.2.1. Global assessment

The evaluator of the present experiment rated Hameed's final product as *a marginally adequate translation* (i.e. in the 3 band on Kiraly's scale), with various mistranslations which reduced the overall quality of the translation. By and large, the line of thought of Hameed's end translation was partially clear, despite the fact that it contained some vague elements, redundant information, free renditions and some lexical gaps, which slightly affected the readability of the TT.

6.2.2.2. Error analysis

The following table 6.3 is an account of Hameed's most serious erroneous translations which significantly impaired the intended message of the STs. Here, it should be borne in mind that, in addition to the serious errors listed in table 6.3 which had a far-reaching effect on the communicative aspect of the translation, he made a number of inaccurate renditions which had a minor effect on the overall contextual coherence of the TT, e.g. additions and circumlocutions. The density of Hameed's serious errors is variable, ranging from only 2 errors in texts C, D, and E to 6 major mistranslations in text F. Apparently, the share of errors in Hameed's translation is dependent on the number of potentially problematic items contained in the ST under translation:

Table 6.3: Hameed's main translational errors

Text	ST unit	Subject's translation	Recommended translation
B	VA	حوادث السيارات (car accidents)	ولاية فرجينيا (Virginia State)
B	Battle of wills	قوة الإرادة (the power of will)	في حالة تحدي (a state of challenge)
B	Are you being helped	هل أنت مستعد للمساعدة (are you ready for help)	هل تمت مساعدتك (Are you being helped)
C	Mucocutaneous reaction	انفعالات عصبية (nervous reaction)	تفاعلات جلدية (Mucocutaneous reaction)
C	Minor Gastrointestinal disorders	الاضطرابات العضوية الرئيسية (major organic disorder)	اضطرابات هضمية محدودة (minor digestive disorders)
D	Unrestrained movement	الطموح الزائد (extra ambition)	التنقل بحرية (free movement)
D	Bequeathed	محددة (specified)	متوارث (handed down)
E	Miscommunication	اللاتصال (lack of communication)	سوء فهم (misunderstanding)
E	Get-out-of-jail card	كرت الخروج من السجن (the card for leaving the jail)	الخروج من مأزق (escape from a critical situation)
F	Bias	حيز (side)	المحياز (favouritism)
F	Interlineal translation	ترجمة وصفية (descriptive translation)	ترجمة حرفية (literal translation)
F	TT	0	نص اللغة الهدف (target text)
F	TL	0	اللغة الهدف (target language)
F	ST	0	نص اللغة المصدر (source text)
F	Global correspondence	توافق تام (complete correspondence)	توافق عام (general correspondence)

In translating text B, Hameed spend quite sometime in ample attempts to disambiguate the meaning of the two recognised problematic units, *VA* and *battle of wills*. He initially made use of reference materials, but was disappointed by the inadequacy of the dictionaries. He then made some semantic analysis and guessing and ultimately provided two haphazard TT equivalents, which turned out to be serious mistranslations. Judging from his protocols, Hameed failed to realise the metaphorical use of *battle of wills* (a state of challenge), as evidenced in his search in

the dictionary under the headword *will* and ultimately his choice of a relatively literal version, i.e. إرادة (will). Additionally, Hameed's lack of concentration led to the misinterpreting of the expression *are you being helped*.

The limitations of the dictionary (i.e. the failure to list appropriate information), coupled with the technical nature of text C made Hameed produce two random Arabic equivalents of *mucocutaneous* and *gastrointestinal* which resulted in mistranslations that seriously affected the readability of the TT.

In translating text D, Hameed's failure to benefit from the adequate information in the monolingual dictionary resulted in wrongly translating the problematic translation units *unrestrained movement* and *bequeathed* into totally irrelevant Arabic equivalents. That is, upon consulting the monolingual dictionary, Hameed misinterpreted the definitions for *unrestraint* and *bequeath* and the result was two mistranslations.

Regarding text E, Hameed erroneously translated two of the most important key units, namely *miscommunication* and *Get-Out-of-Jail card*. As shown in the protocols, both mistranslations were largely due to Hameed's unawareness of the connotative use of *miscommunication* (misunderstanding), as well as his unfamiliarity with the metaphorical meaning of *Get-Out-of-Jail card* (escape from a critical situation). In both cases, He faultily opted for one-to-one correspondences (i.e. literal translation), and the result was serious translational errors that significantly impaired the intended message contained in the ST, and consequently reduced the overall quality of the end translation.

Text F contained most of Hameed's errors, largely because of the highly problematic nature of the text, particularly the abbreviated items whose translation proved burdensome for all subjects. After realising the inadequacy of reference materials and

the consequent insolubility of the problematic items *TT*, *TL*, and *ST*, he decided to leave them untranslated (i.e. he left a gap in the translation manuscript). Moreover, the lack of close attention and the failure to properly deduce the meaning from contextual clues led Hameed to inappropriately render *bias* (favouritism), *interlineal* (literal) and *global* (general) as *وصفية* (side) *وصفية* (descriptive) and *تام* (complete), respectively.

6.2.2.3.Global behaviour

6.2.2.3.1.Translation processing

The analysis of Hameed's protocols revealed that he employed two different approaches in his translation processing of the STs. First, he read through the entire ST as a preparatory process so as to gain a general sense of the text, to be followed by a lengthy writing stage which included identifying and solving translational problems via problem-solving strategies, and finally an evaluative reading of the final translation. The second approach was translating the ST orally as a preparatory stage, dealing with problematic lexical items as they arose (i.e. using problem-solving strategies), to be followed by a short writing stage and eventually an evaluative reading of the TT to check its readability and detect inconsistencies.

As far as editing is concerned, in addition to the evaluative reading of the TT, Hameed used outright correction in the preliminary and the writing stages, as well as a delayed revising at the closing stage of the translation process, yet on the whole, such processes had little influence on the quality of the end translation.

6.2.2.3.2. Patterns of behaviour

The following are the main observable patterns of behaviour of Hameed during his task performance:

- a) He displayed some degree of sensitivity to translation problems, as evidenced by the large number of identified problematic items (40 problems) as well as the ample use of problem-solving strategies (68 instances);
- b) He exhibited a moderate context-awareness, as manifested by his rejection of a number of proposed translations on the grounds that they did not suit the context of the TT, as well as checking familiar lexical items in reference materials for secondary meanings that could be contextually more appropriate;
- c) He showed a tendency to add variants and descriptive phrases in the translation manuscript, seemingly with the objective of clarifying ambiguous units or compensating for any loss of information. Evidently, with such an attitude, the quality of Hameed's end translation slightly turned out for the worse. A revealing example that illustrates the negative effect of such a course of action is the addition of redundant information upon rendering the first sentence of text D, as shown in the following back-translation:

ST: Rare is the American who has not dreamed of dropping whatever he is doing and hitting the road.

TT: قل ما نجد أمريكيا لم تراوده أحلام بالتخلي عن عمله والقيام برحلة تحقق أحلامه:

Back-translation: It is rare to find an American who has not dreamed of leaving his work and going on a journey **that fulfills his dreams.**

The above back-translation obviously exemplifies Hameed's typical preference for circumlocution, an attitude that doubtlessly reduces the quality of the translation.

Here, Hameed showed an unfaithful attitude towards the ST by superfluously adding the phrase تحقق أحلامه (fulfills his dreams) which did not exist in the ST;

- d) He showed an evaluative attitude towards the translation of individual units as well as the end product. He seemed unsatisfied with the quality of his translation, and attributed this to the inadequacy of reference materials, particularly the bilingual dictionary;
- e) He displayed a generally competent use of dictionaries despite his occasional misuse and explicit remarks of frustration as regards the shortcomings of reference materials.

6.2.3. Ali

6.2.3.1. Global assessment

Ali's end product was rated by the evaluator of the present study as *a barely adequate translation* (i.e. at the lower end of the 3 band of Kiraly's scale), with a number of serious errors which considerably affected the quality of the TT. Additionally, the translation was considered too faithful to the ST, and this resulted in some odd mistranslations as well as negatively affecting the contextual coherence of the TT.

6.4.2. Error analysis

As pointed out earlier, Ali made a number of serious mistranslations which notably reduced the quality of the end translation. The following table (6.4) lists these errors together with the recommended translations. The number of serious errors is variable, ranging from one mistranslation in text C to five errors in text F:

Table 6.4: Ali's main translational errors

Text	ST unit	Subject's mistranslation	Recommended translation
B	VA	في آي (V A)	ولاية فرجينيا (Virginia State)
B	Battle of wills	معركة الإرادة والإصرار (battle of desire and determination)	في حالة تحدي (a state of challenge)
C	Mucocutaneous reactions	تفاعلات الغشاء المخاطي (mucous membrane reactions)	تفاعلات جلدية (Mucocutaneous reactions)
D	Rare	رير (Rare (a proper name))	نادر (uncommon)
D	Dropping	إسقاط (causing to fall)	التخلي عن (leaving)
D	Hitting the road	يرطم بالطريق (to collide with the road)	يسافر (travel)
D	Restless	علم الراحة (nervous)	رحالة (on the move)
E	Miscommunication	الاتصال الخاطيء (faulty communication)	سوء الفهم (misunderstanding)
E	Explain away	تعبير (expressing)	يبرر (justify)
E	Get-Out-of-Jail card	0	الخروج من مأزق (escape from a critical situation)
F	Extreme	0	أقصى درجة (endmost)
F	Bias	0	انحياز (favouritism)
F	Interlineal translation	ترجمة بين السطور (between lines)	ترجمة حرفية (literal translation)
F	TT	تدريس اللغة المنشودة (teaching target language)	نص اللغة الهدف (target text)
F	ST	تدريس اللغة المصدر (teaching source language)	نص اللغة المصدر (source text)

As can be seen in table 6.4, Ali produced a total of 15 major translational errors which had a far-reaching effect on the quality of his end product.

In text B, for instance, Ali resorted to the strategy of transliteration in his attempt to find an equivalent for the problematic abbreviation *VA*. The employment of this strategy came after the unsuccessful use of reference material, and the result was a mistranslation that led to the impairment of the intended message of the ST lexical items (i.e. Virginia State). Moreover, Ali failed to realise the figurative use of *battle of wills* when he opted for a word-for-word rendition, which failed to convey the

intended meaning (i.e. a state of challenge), consequently reducing the readability of the TT.

Text D, on the other hand, provides a striking example of the effect of lexico-semantic errors on the quality of the translation. Prior to translating the first sentence of the text, Ali commented: “ما فيه كلمه صعبة” (there is no difficult word), a remark which demonstrates Ali’s insensitivity towards potentially problematic lexical items. This unwary behaviour resulted in the production of three odd errors which significantly reduced the quality of the translation. Initially, Ali mistook the word *rare* for a proper name and clumsily transferred this into the TL. He then failed to understand the intended meaning of the lexical item *dropping* (i.e. leaving), and literally perceived it as *causing to fall*, a faulty interpretation which he transferred into the TT, consequently resulting in the introduction of an irrelevant TT equivalent that distorted the intended message. Once again, Ali failed to realise the metaphorical denotation of the idiom *hit the road* (travel), as manifested by his hasty literal rendition which led to the production of an absurd TT equivalent (i.e. يرتطم بالطريق = literally translated as to collide with the road). To further illustrate the effect of above three errors on the quality of translation, we may consider the following back-translation of Ali’s rendition of the first sentence of Text D:

ST: Rare is the American who has not dreamed of dropping whatever he is doing and hitting the road.

TT: رير رجل أمريكي لا يحلم بإسقاط أي شيء يفعله أو ما يرتطم بالطريق.

Back-translation: Rare is an American man who does not dream of pulling down whatever he is doing or colliding with the road.

As can be seen in the above back translation, the three errors which Ali made in his translation of the first sentence of text C resulted in a total distortion of the intended

message in the ST, and ultimately the reduction of the quality of the translation as a whole.

Translating the word *restless* (text D) as *عندم الراحة* (nervous) is also another erroneous literal rendition of the intended meaning in the ST (i.e. *رحالة* = on the move).

The rest of Ali's errors are the result of either a faulty word-for-word rendition (i.e. miscommunication, explain away, interlineal), unjustified omission (i.e. verbal get out of jail card, extreme, and bias), or a haphazard misjudgement (i.e. TT and ST).

6.2.3.3. Global behaviour

6.2.3.3.1. Translation processing

The analysis of Ali's protocols yielded the result that his progression through the ST falls into two main stages, namely the writing stage and the editing stage. Regarding the preparatory stage, Ali seems to have the tendency to start the translation process directly without reading through the ST as a preliminary step to gain a general sense of the subject matter. Here, it is fairly safe to assume that the absence of a preliminary stage in Ali's translation processing may have increased his unawareness of the subject matter and potential problems, and consequently reduced the quality of the translation. The greatest part of the translation task (approximately 90%) was carried out during the writing stage, e.g. employing problem-solving strategies and TT production. As for the editing stage, this represented only a minor phase of the translation process and was confined to the addition of alternative variants at the closing stage of the translation process. Despite the fact that Ali's addition of alternative equivalents at the editing stage was aimed at improving the end translation quality, the evaluation of his end product revealed that his editing did not enhance the quality of the translation in any way, but rather worsened it in some instances.

6.2.3.3.2. Patterns of behaviour

The most detectable patterns of Ali's global behaviour during his task performance are as follows:

- a) He demonstrated a low degree of sensitivity towards potential translation problems. He also showed unjustified overconfidence as regards his familiarity with meanings of problematic lexical items. In the majority of cases, Ali carelessly considered faulty one-to-one correspondences for potential problematic units, e.g. collocations, without paying adequate attention to the appropriateness of his proposed translations;
- b) He showed little interest in the contextual appropriateness of his translation, as manifested by the fact that he took most of his proposed TT equivalents (and dictionary definitions) for granted without assessing them against the context of the ST and the TT. He also paid little attention to the readability of the TT; e.g. he did not read his end product upon finishing the translation task. This behaviour seems to be the result of approaching the translation task with comprehension goals in mind, along with having little interest in the coherence of the TT.
- c) He showed some inefficiency in his use of reference materials, e.g. searching for the meaning of a lexical item under a wrong headword, failing to benefit from adequate information, readily accepting dictionary equivalents without checking their contextual appropriateness, etc.

6.2.4. Thamir

6.2.4.1. Global assessment

The evaluator general assessment of Thamir's overall translation resulted in rating his end product as a *barely adequate translation* (i.e. at the very bottom of the 3 band on

Kiraly's scale), with various lexico-semantic errors. The quality of his translation was variable, depending on the number of serious mistranslations as well as the overall coherence of the TT. On the whole, the line of thought was barely clear, for it contained a number of vague and inaccurate translations, as well as some lexical gaps in the translation manuscript.

6.2.4.2. Error analysis

Table 6.5 below illustrates Thamir's major translational errors which significantly impaired the communicative aspect of the end translation:

Table 6.5: Thamir's main translational errors

<i>Text</i>	<i>ST unit</i>	<i>Subject's translation</i>	<i>Recommended translation</i>
B	VA	إدارة الخبراء (expert administration)	ولاية فرجينيا (Virginia State)
B	Battle of wills	معركة مع الإرادة (battle with will)	في حالة تحدي (a state of challenge)
C	Mucocutaneous reactions	التهاب الغشاء المخاطي (inflamed mucous membrane)	تفاعلات جلدية (mucocutaneous reactions)
C	Blood disorders	ارتفاع ضغط الدم (high blood pressure)	اضطرابات الدم (blood disorders)
C	Minor gastrointestinal disorders	0	اضطرابات هضمية محدودة (minor digestive disorders)
C	Hepatic disorders	فقدان الشهية (loss of appetite)	اضطرابات الكبد (hepatic disorders)
D	Dropping	فشل (failure)	التخلي عن (leaving)
D	Hitting the road	يسبب ضررا للآخرين (to cause harm to others)	يسافر (travel)
D	National	0	وطني (national)
E	Miscommunication	عدم الاتصال (not communicating)	سوء الفهم (misunderstanding)
E	Missed the wedding	فقد التواصل (loss of contact)	لم يحضر الزواج (failed to attend the wedding)
E	Get-Out-of-Jail card	0	الخروج من مأزق (escape from a critical situation)
F	Bias	0	انحياز (favouritism)

<i>Text</i>	<i>ST unit</i>	<i>Subject's translation</i>	<i>Recommended translation</i>
F	Extreme	0	أقصى درجة (endmost)
F	TT	TT	نص اللغة الهدف (target text)
F	ST	ST	نص اللغة المصدر (source text)

Table 6.5. shows clearly that Thamir produced a total of 16 serious mistranslation which had a far-reaching consequence on the quality of the translation, i.e. reducing the quality of the end product.

In translating text B, for example, two major erroneous translations were detected, namely translating *VA* as إدارة الخبراء (expert administration) and *battle of wills* as معركة مع الإرادة (battle with will). Based on the analysis of his protocols, Thamir's faulty rendition of *VA* was the result of his misplaced trust of the contextually unsuitable information provided by the dictionary (i.e. Veteran Administration). Mistranslating *battle of wills*, on the other hand, resulted from Thamir's unawareness of the figurative use of this unit (i.e. a state of challenge), as manifested by his hasty selection of a faulty one-for-one correspondence.

In translating text C, Thamir found most of the medical lexical items (e.g. *mucocutaneous*, *blood disorder*, *gastrointestinal*, and *hepatic disorder*) unfamiliar. Therefore, he sought help from dictionaries but they proved unhelpful in all cases of consultation. Eventually, He depended on his translation intuition, and haphazardly guessed the meaning of the problematic medical terminology (except for *gastrointestinal* which he left untranslated), but his TT equivalents turned out to be inappropriate.

Upon realising the problematic nature of *dropping* and *hitting the road* in text D, Thamir immediately initiated a dictionary search. In searching for the potential meaning of *dropping*, the dictionary offered يسقط (fall), among other variants, which

Thamir instantly rejected on the grounds that it was unsuitable for the present context. He then erroneously guessed the intended meaning and randomly provided a TT equivalent (فشل failure), which turned out to be totally irrelevant. Likewise, his search for the meaning of *hit the road* proved unsuccessful. As observed in his protocols, Thamir realised the inappropriateness of a literal TL version of the idiom, as manifested by his comment: “ما هي معقولة يضرب الطريق” = “it is impossible to say to beat the road.” However, despite such context-sensitivity, he failed to provide an appropriate Arabic equivalent, and opted for a ‘hit-or-miss’ version, يسبب ضررا للآخرين = to cause harm to others, unquestionably, an inadequate translation.

The unawareness of the connotative meaning of the key word *miscommunication* (i.e. misunderstanding) in text E, led Thamir to hastily provide a faulty literal Arabic version (الاتصال lack of communication), an action which significantly impaired the intended message of the ST. Additionally, the lack of concentration caused Thamir to misinterpret the straightforward phrase *missed the wedding*, and consequently to introduce an erroneous translation. In translating the metaphor *Get-Out-of-Jail card*, despite the ample employment of problem-solving strategies, Thamir failed to deduce the figurative meaning of this problematic unit. He therefore rejected the idea of proposing a word-for-word Arabic equivalent for this metaphor, because of its contextual inappropriateness (see example (86) in section 5.6.10), and decided to leave a gap in the translation manuscript.

In translating text F, Thamir’s failure to efficiently extract the meaning of *bias* and *extreme* from the monolingual dictionary, made him again resort to the strategy of avoidance (i.e. leaving a gap in the translation manuscript), accordingly reducing the readability of the TT. In like manner, the inadequacy of the dictionary in failing to

provide any information on the abbreviations *TT* and *ST* led Thamir to erroneously resort to the strategy of transliteration, thus producing inappropriate Arabic equivalents that are doubtlessly incomprehensible to the Arabic readership.

6.2.4.3. Global behaviour

6.2.4.3.1. Translation processing

Thamir's translation processing was carried out in only one exhaustive stage, namely the writing stage. This entails that he did not show any preliminary phase (e.g. reading the whole *ST* for a general sense of the subject matter), nor he did introduce any post-writing stage such as evaluating *TTs* for improvements. On the whole, his approach to the *ST* is to directly translate sentence by sentence, interrupting the flow of his translation whenever a problematic item is detected and employing problem-solving strategies to bring about solutions for translational problems.

6.2.4.3.2. Patterns of behaviour

Based on the analysis of Thamir's protocols, the following are his main patterns of behaviour:

- a) He showed a reasonable sensitivity towards translational problems, as evidenced by the fact that he detected most of the potentially problematic lexical items. In most cases, he seemed irritated by encountering difficult translation units, especially the abbreviated items;
- b) He displayed some degree of context awareness, as manifested by his rejection of some proposed translations, because they did not sound right in the given context. In some cases, such context-sensitivity made him leave some insoluble problematic items untranslated, instead of introducing random equivalents that would be contextually inappropriate. The most striking

example is his decision to reject a word-for-word correspondence for the metaphor *verbal Get-Out-of-Jail card*, and to opt for leaving a gap in the translation manuscript. Thus, to this effect he commented: “ما هي معقول بطاقة لفظية” = “it is impossible to say an oral card for getting out of jail.. all we can do is leave it out..”). However, despite his evaluative attitude towards individual units, he did not assess the contextual coherence of the whole TTs;

- c) He demonstrated a moderate efficiency in consulting reference materials. Examples of inefficient use are a) readily accepting inappropriate equivalents, b) searching under the wrong headword, and c) failing to benefit from appropriate information in the dictionary. Additionally, he only occasionally checked the information provided by the monolingual dictionary in the bilingual dictionary

6.2.5. Khalid

6.2.5.1. Global assessment

By and large, Khalid's end product was rated as a *poor translation* (i.e. in the 2 band on Kiraly's scale), with a large number of inconsistencies. It contained a number of extremely irrational mistranslations which significantly reduced the overall quality of the translation. Apparently, the comprehension-orientedness of Khalid led him to produce an inadequately interlineal translation; i.e. he did not consider the appropriateness of his TTs, but was more concerned with understanding the meaning of individual units in the ST. As a result, the line of thought in Khalid's end translation was notably incoherent, particularly in text F.

6.2.5.2. Error analysis

The following table illustrates Khalid's main lexico-semantic errors which significantly reduced the quality of the end translation:

Table 6.6: Khalid's main translational errors

<i>Text</i>	<i>ST unit</i>	<i>Subject's translation</i>	<i>Recommended translation</i>
B	Biomedical	محضر أدوية (medicine manufacturer)	فني طبي (medical technician)
B	VA	0	ولاية فرجينيا (Virginia State)
B	Put on hold	الهاتف مشغول (the line is busy)	ينتظر على الهاتف (put on hold)
B	Battle of wills	معركة عزائم (إرادت) (battle of determinations (wills))	في حالة تحدي (a state of challenge)
C	Mucocutaneous reactions	آثار عكسية (negative effects)	تفاعلات جلدية (mucocutaneous reactions)
D	Rare	رير (Rare (a proper name))	نادر (uncommon)
D	Dropping	سقوط (falling)	التخلي عن (leaving)
D	Hitting the road	انسجم مع الطريق (harmonised with the road)	يسافر (travel)
D	Souls	أرواح (spirits)	الناس (people)
E	Miscommunication	عدم الاتصال (عدم الترابط) (non-communication (misconnection))	سوء الفهم (misunderstanding)
E	Missed the wedding	لم يهمل حضور الزفاف (did not neglect attending the wedding)	لم يحضر الزواج (missed the wedding)
E	Without assigning responsibility	عدم الاكتراث (indifference) عدم الشعور بالمسؤولية (not feeling responsibility)	دون إلقاء المسؤولية (without assigning responsibility)
E	Verbal Get-Out-of-Jail card	بطاقة الخروج من السجن الشفهية (the oral card for getting out of jail)	الخروج من مأزق (escape from a critical situation)
F	Bias	انحراف (deviation)	تحييز (favouritism)
F	SL	اللغة الثانية (second language)	اللغة المصدر (source language)
F	Interlineal translation	ترجمة ما بين سطور النص (the translation of what is between the lines of texts)	ترجمة حرفية (literal translation)
F	TT	التحول البرقي (telegraphic transfer)	نص اللغة الهدف (target text)
F	ST	الوقت الرسمي (official time)	نص اللغة المصدر (source text)

As can be seen in table 6.6, in translating text B, Khalid produced four major mistranslations, which had a far-reaching effect on the readability of the TT, although to varying degrees. Consequent to identifying *biomedical* as a translational problem, Khalid checked the dictionary but without success. He then proposed a relatively adequate equivalent (مصلح أجهزة طبية = medical machines technician) which he deduced from the text, but unconfidently rejected it and haphazardly settled on an inappropriate TT equivalent (محضر أدوية = medicine manufacturer). Regarding VA (Virginia State), Khalid immediately resorted to the monolingual dictionary which provided *veteran administration* as a definition of the abbreviation. He readily accepted the dictionary's information, but at a subsequent stage of the translation process crossed it out and decided to leave a gap in the translation manuscript. Besides, Khalid's unfamiliarity with the idiomatic meaning of *put on hold* resulted in a misinterpretation of the intended message and in carelessly proposing a faulty meaning (i.e. the line is busy) without considering its contextual appropriateness. By the same token, Khalid's unawareness of the metaphorical use of *battle of wills* (a state of challenge) resulted in erroneously providing a word-for-word Arabic equivalent (معركة عزائم (ارادات)) = battle of determinations (wills)), a translation which significantly distorted the intended message in the ST.

In text C, the only major error was the result of Khalid's lack of concentration as manifested by his random provision of a TT equivalent (آثار عكسية = negative effects) for *mucocutaneous*, without even consulting the dictionary.

In translating text D, Khalid's comprehension-orientedness and context-insensitivity resulted in producing four major mistranslations that dramatically impaired the intended message of the ST. First, he hastily mistranslated the word *rare*

(uncommon) into a proper name, without considering its suitability in the given situation. Apparently, Khalid's misinterpretation of *rare* resulted from his unfamiliarity with the possibility of subject-predicate inversion in English and the occurrence of the predicate at the start of the sentence. Second, he carelessly translated *dropping* (leaving) as a faulty literal equivalent (سقوط falling) without evaluating its apparent contextual inappropriateness, seemingly because *falling* was the first meaning that came to his mind. Third, his lack of judgement as well as the unfamiliarity with the idiomatic meaning of *hit the road* (travel) led him to irrationally provide a haphazard Arabic equivalent (انسجم مع الطريق = harmonised with the road) which hampered the ST intended message. Fourth, he incautiously translated *souls* (people) as a faulty TT equivalent (أرواح = spirits), apparently because of his ignorance of its polysemous nature as well as his context-insensitivity. Here, a back-translation of the first sentence of text D will illustrate the extent of the effect of Khalid's mistranslations (and context-insensitivity) on the quality of the translation:

ST: Rare is the American who has not dreamed of dropping what he is doing and hitting the road

TT: رير هو مصطلح أمريكي يطلق على الذي لم يحلم بالسقوط مهما عمل أو مهما انسجم مع الطريق الذي يسلكه

Back-translation: Rare is an American term for the one who has not dreamed of falling whatever he does or how much he harmonised with the road which he follows.

Similarly, Khalid's production-carelessness and context-unawareness resulted in four major erroneous translations in text E. First, he failed to realise the connotative meaning of *miscommunication* (misunderstanding), and naively opted for a literal version (عدم الاتصال = lack of communication) which dramatically impaired the intended

ST message. Second, his lack of concentration resulted in a misinterpretation of the simple phrase *missed the wedding*, and consequently in providing an irrelevant TT equivalent. Third, in like manner, he misinterpreted the phrase *without assigning responsibility* (blaming) and carelessly provided a random translation which turned out to be an unfitting TT equivalent (i.e. عدم الشعور بالمسؤولية = not feeling responsibility). Fourth, Khalid's context-insensitivity as well as his unawareness of the metaphorical use of *verbal Get-Out-of-Jail card* made him settle on an erroneous word-for-word correspondence. As a result, he produced an extremely odd translation which significantly distorted the ST message (easy escape from a critical situation) and reduced the overall quality of the translation.

Text F was by far the worst of Khalid's end translations, mainly because of the number of major errors as well as its extreme contextual inaccuracy. Here, in addition to his context-insensitivity and production-carelessness, Khalid's misuse of the dictionary contributed significantly to the worsening of his translation. For example, upon consulting the bilingual dictionary to search for the meaning of *bias*, Khalid read out only two variants انحراف and ميل, despite the inclusion of other variants (i.e. محاباة, تحيز, تشيع), and hastily selected انحراف (deviation) which does not suit the given situation (i.e. favouritism). That is, his misuse of the dictionary is manifested by his failure to read out and consider all the variants listed by the dictionary, which included the appropriate equivalent (تحيز). By the same token, Khalid's inefficient use of reference materials resulted in a mistranslation of the lexical item *interlineal* (literal). This is because he readily accepted the information of the monolingual dictionary (i.e. inserted between the lines of a text) without considering its easily observed contextual inappropriateness. Besides, he clumsily accepted the dictionary's

definitions for the abbreviated items *TT* (target text) and *ST* (source text) which are contextually unfitting; i.e. telegraphic transfer for *TT* and standard time for *ST*. Hence, his unjustifiable trust of reference materials without considering the given context, resulted in producing two odd translations, التحويل البرقي and الرقت الرسمي, which significantly impaired the *ST* message, accordingly reducing the readability and overall quality of the end translation (c.f. the example (49) in section 5.6.1.3.). Finally, the lack of concentration, coupled with context-insensitivity, resulted in Khalid's random mistranslation of the abbreviated item *SL* into the contextually unsuitable Arabic equivalent اللغة الثانية (second language).

6.2.5.3. Global behaviour

6.2.5.3.1. Translation processing

The analysis of Khalid's protocols revealed that he did not have a preliminary stage (e.g. reading the entire *ST* for a global sense of the subject matter or identifying and dealing with problematic items), and that his approach to the *ST* was to directly translate unit by unit. On the whole, his translation processing can roughly be divided into two stages: 1) the writing stage which is the main run-through, as it includes the largest part of the translation task performance, i.e. *ST* comprehension processing, problem identification, employment of problem-solving strategies, and *TT* production; and 2) the relatively short stage of editing at the end of the translation process, such as adding alternatives and crossing out some *TT* items. Although his editing stage was aimed at improving the translation, the analysis of the end product revealed that his editing activities had little effect on the overall quality of the translation.

6.2.5.3.2. Patterns of behaviour

The following are Khalid's main observable patterns of behaviour during his translation task performance:

- a) He showed a reasonable degree of sensitivity to translational problems, as evidenced by the large number of identified problematic items (=47 problems). However, despite the large share of recognised problems, he showed a low rate of success as a problem-solver, managing to solve only 18 problems;
- b) He exhibited a low degree of context-awareness, as manifested by the fact that he took his proposed translations for granted, without testing them against the context. Additionally, he was comprehension-oriented, as he had little interest in the readability of his poorly translated TTs;
- c) He displayed a great deal of inefficiency in his use of reference material. For example, he naively viewed the dictionary as the final authority; e.g. he readily took dictionary variants for granted. He also showed a tendency to read out only part of the dictionary's information, and to select the first equivalent. He searched for the same lexical item more than one time in the same dictionary. The speed at which he consulted the dictionary was fairly slow;
- d) He displayed a relatively low foreign-language efficiency, as manifested by his search for potentially neutral and easy vocabulary (e.g. continent), as well as his occasional misinterpretation of the definitions in the monolingual dictionary;
- e) He demonstrated a tendency to add redundant information, e.g. providing alternatives for a number of TT lexical items, as well as adding irrelevant information for which there was no ST equivalent. This attitude may reflect some lack of confidence in his understanding of these translated items. Examples of this are:

- 1- unrestrained = غير مقيدة (غير محدودة-غير مضبوطة)
- 2- miscommunication = عدم الاتصال (عدم الترابط)
- 3- wills = عزائم (ارادات)
- 4- without assigning responsibility = عدم الاكتراث (عدم الشعور بالمسؤولية)
- 5- broad = متباعد (واسع)

6.2.6. Hasan

6.2.6.1. Global assessment

The investigator of the present study rated Hasan's end product as *a poor translation* (i.e. in the 2 band on Kiraly's scale), with many major errors that reduced the overall quality. On the whole, Hasan's translation was ST biased; that is, he was notably comprehension-oriented and too faithful to the ST, as evidenced in his production of many faulty word-for word correspondences. The line of thought in the TTs was incoherent and sometimes misleading, as it contained a large number of deficient translations which impaired the intended messages of the STs.

6.2.6.2. Error analysis

Table 6.7 below lists Hasan's major translational errors which had a far-reaching effect on the quality of his end translation. A total of 23 serious errors were identified in Hasan's end translation. In addition, Hasan made some minor mistranslations that slightly affected the readability of the TTs, e.g. circumlocutions and slightly inaccurate renditions.

Table 6.7: Hasan's main translational errors

<i>Text</i>	<i>ST unit</i>	<i>Subject's translation</i>	<i>Recommended translation</i>
B	Biomedical	فتي للأدوات الطبية (young man for medical equipment)	فني طبي (medical technician)
B	VA	خيري (charity)	ولاية فرجينيا (Virginia State)
B	Battle of wills	حرب أعصاب ومعركة عزائم (battle of nerves and wills)	في حالة تحدي (a state of challenge)
B	A state of disbelief	فقدان أعصاب غير معقولة (unbelievable loss of control)	في حالة من عدم التصديق (a state of disbelief)
C	Mucocutaneous reaction	أعراض مالتكوتوس (maltkukotuos symptoms)	تفاعلات جلدية (mucocutaneous reaction)
C	Minor gastrointestinal disorders	اضطرابات محدود جاسترواناستنال (disorders minor gastrointestinal)	اضطرابات هضمية محدودة (minor digestive disorders)
C	Hepatic disorders	اضطرابات رئوية (lung disorders)	اضطرابات الكبد (hepatic disorders)
D	Rare	رير (Rare (a proper name))	نادر uncommon)
D	Dropping	يضعف (weaken)	التخلي عن (leaving)
D	Hitting the road	يتلقى الضربة (to take the hit)	يسافر (travel)
D	Unrestrained movement	حركة عفوية (accidental movement)	التنقل بحرية (free movement)
D	Souls	أرواح (spirits)	الناس (people)
D	Restless	متعبة (tired)	رحالة (on the move)
D	Populated	وسعوا شهرة (made popular)	سكنوا (inhabited)
E	Miscommunication	مقاطعة (boycott)	سوء الفهم (misunderstanding)
E	Clients	موكل (lawyer's clients)	زبائن (customers)
F	Extreme	متطرف (fanatic)	أقصى درجة (endmost)
F	Bias	منحرف (deviant)	انحياز (favouritism)
F	Interlineal translation	ترجمة مبطنة (implicit translation)	ترجمة حرفية (literal translation)
F	SL	اللغة المدروسة / SL (the studied language)	اللغة الأصلية (source language)
F	TL	ترجمة اللغة (language translation)	اللغة الهدف (target language)
F	ST	الترجمة الثانية (secondary translation)	نص اللغة الأصلية (source text)
F	TT	مدرس (teacher)	نص اللغة الهدف (target text)
F	Global correspondence	تشابه عالمي (international similarity)	تطابق عام (general correspondence)

In translating text B, Hasan produced 4 grave translational errors, which significantly hampered the intelligibility of the TT. In translating *biomedical*, Hasan employed various problem-solving strategies (i.e. dictionary consultation, word-segmentation, semantic analysis, and solution-deferment), but his ample attempts to disambiguate its potential meaning (medical technician) proved unsuccessful. Consequently, Hasan depended on his intuition and provided a ‘hit-or-miss’ TT equivalent (فنى للأدوات الطبية), a translation which doubtlessly does not make sense to the Arabic readership. In like fashion, Hasan’s total unfamiliarity with the abbreviation *VA* made him employ different types of problem-solving strategy which once again proved useless. Therefore, he erroneously guessed its meaning and haphazardly provided a faulty TT equivalent (خيري = charity) which recklessly twisted the intended message of the ST (i.e. Virginia State). Furthermore, Hasan’s inefficient use of reference material as well as his perceptible unawareness of the metaphorical use of *battle of wills* (i.e. a state of challenge), as evidenced by his search for the meaning of its individual components, resulted in the hasty production of a faulty word-for-word Arabic equivalent (i.e. حرب أعصاب ومعركة عزائم = a battle of nerves and wills), which failed to convey the intended message of the ST. As for the inaccurate rendition of the straightforward lexical item *disbelief* as فقدان أعصاب غير معقولة (unbelievable loss of control), this was the result of Hasan’s misplaced trust in his understanding of its meaning as well as his tendency to add unjustified additional information (i.e. adding غير معقولة).

The technical nature of text C, coupled with the inadequacy of reference material (i.e. the dictionary’s failure to provide adequate information on technical terms), resulted in producing three major mistranslations that significantly impeded the readability of

the TT. Here, upon realising the insolubility of the translational problems, *mucocutaneous*, *gastrointestinal*, and *hepatic*, Hasan irrationally decided to transliterate *mucocutaneous* and *gastrointestinal* into Arabic, and to provide a random TT equivalent for *hepatic*, consequently providing erroneous Arabic equivalents that make no sense to the Arabic readership

By the same token, Hasan's lack of concentration, inefficient dictionary use, and context-insensitivity led him to produce 7 major errors in translating text D. First, he misinterpreted the word *rare* as a proper name, mainly because of its unfamiliar position (i.e. as a fronted predicate) within the sentence as well as its capitalised initial, as evidenced by his remark "أول شيء capital معناها اسم = the first thing is capital, so it is a name." Second, he incorrectly translated *dropping* as يضعف (weaken), a mistranslation which resulted from his inefficient use of reference material when he rejected the appropriate dictionary equivalent التخلي عن (leaving), and irrationally selected يضعف, without considering its contextual appropriateness in the given situation. Third, Hasan's unawareness of the idiomatic use of *hit the road*, as evidenced by his search in reference material for the meaning of its individual components, coupled with his apparent comprehension-orientedness, resulted in a hasty production of a totally inappropriate translation (يتلقى الضربة = to take the hit) that significantly impaired the intended message of the ST (i.e. travel). Fourth, in translating the adjective *unrestrained*, Hasan failed to benefit from the dictionary's adequate information when he rejected the appropriate variant غير مقيدة (unrestricted) and randomly picked the unfitting variant عفوية (accidental) without considering its contextual unsuitability, thus resulting in an erroneous translation. Fifth, his

unawareness of the polysemous nature of *soul*, together with his context-insensitivity, led him to misinterpret its intended meaning (people) and to provide a contextually inappropriate TT equivalent, i.e. أرواح (spirits). Sixth, mistranslating *restless* as متعبة (tired) is also the result of his lack of evaluation of contextual appropriateness of his proposed translation. Seventh, the erroneous translation of *populated* as وسعوا شهرة (made popular) was the result of Hasan's lack of close attention, as evidenced by the fact that he mistook the lexical item *populate* for the word *popular*.

In translating text E, the use of *miscommunication* to denote *misunderstanding* proved troublesome to Hasan. Therefore, after unsuccessful semantic analysis, he resorted to the dictionary which provided no information. As a result, he irrationally decided to opt for a 'hit-or-miss' interpretation of this problematic item, consequently introducing an inappropriate TT equivalent (i.e. مقاطعة boycott), as evidenced in his comments: "[checking the dictionary] مقاطعة .. مقاطع العلاقات.. = " ما لقيتها الظاهر إنما سوء الاتصال أو قطع العلاقات.. boycott." did not find it. It could be bad communication or severance of relations.. boycott." Additionally, Hasan's comprehension-orientedness as well as the misuse of reference material resulted in erroneously translating the word *client* (customer) into the contextually unsuitable TT equivalent, موكل (lawyer's client). Here, although the bilingual dictionary provided تابع, موكل, زبون as potential equivalents for *client*, Hasan clumsily ignored زبون, and chose موكل despite its apparent TT collocational mismatch with the preceding lexical item, بائع (seller). Again, this deviant behaviour proves Hasan's context-insensitivity.

Regarding text F, Hasan produced his worst translation in terms of translation quality, as evidenced by the large number of major mistranslations (=8 errors) and accordingly

the unacceptable readability of the TT. In translating *extreme* and *bias*, for example, Hasan failed to benefit from the adequate information of reference material when he incautiously rejected appropriate equivalents and incorrectly favoured the unsuitable variants without testing them against the context. On the other hand, in translating the abbreviated items, *SL*, *TL*, *ST*, and *TT*, reference material proved useless, as it provided no information on these problematic items. As a result, Hasan depended on his translation intuition and erroneously guessed their meanings, consequently producing improper TT equivalents, which substantially impaired the quality of his end translation. Finally, Hasan's unawareness of the collocational meaning of *global correspondence* (general equivalence), as well as his observable lack of evaluative attitude towards the contextual appropriateness of his proposed translations, resulted in faultily producing an odd Arabic collocational mismatch, when he translated *global correspondence between the contextual units* into the faulty word-for-word Arabic equivalent, تشابه عالمي بين الوحدات النصية (international similarity between the contextual units).

Here, to illustrate the extensively negative effect of Hasan's major lexico-semantic errors on his end translation quality, consider the following back-translation of his translation of text F:

ST:

- (a) At the extreme of SL bias is interlineal translation, where the TT does not necessarily respect TL grammar, but has grammatical units corresponding to every grammatical units of the ST. (b) At the extreme of TL bias is completely free translation, where there is only a global correspondence between the textual units of the ST and those of the TT.

TT:

أن انحراف SL بشكل متطرف هو ترجمة مبطنة. في حيث أن مدرس ليس بالضرورة أن يتقيد بقواعد اللغة المدروسة ولكن نفس اللغة بما وحدات نحوية متطابقة لكل وحدة نحوية في اللغة الثانية SL. الانحراف في ترجمة اللغة هو ترجمة حرة مطلقة في حيث أن هنالك تشابها عالميا وحيدا فيما بين الوحدات النصية في الترجمة الثانية ومثيلاتها في النص المترجم

Back-translation:

The deviation of SL in an extreme way is an implicit translation, where the teacher does not necessarily follow the rules of the studied language, but the same language has syntactic units corresponding to each syntactic unit in the second language SL.

The deviation in translating the language is a completely free translation, where there is one international similarity between the textual units in the second translation and its counterparts in the translated text.

As can be seen in the back-translation, Hasan's misinterpretation of some ST lexical items, particularly abbreviations, resulted in producing an incoherent TT which undoubtedly failed to convey the intended message of the ST.

6.2.6.3.Global behaviour**6.2.6.3.1.Translation processing**

Judging from his protocols, Hasan's approach to the ST involves reading through the entire text once with the objective of identifying problematic lexical items. During this initial reading, the identified problematic units are dealt with spontaneously via the employment of problem-solving strategies, particularly consulting reference materials. This is followed by a writing stage, which includes dealing with previously unsolved translational problems, as well as some irregular editing activities. On some occasions, the translation is initially written in a form of a draft to be followed by a

final translation manuscript with relatively few changes to the draft. Despite some editing activities (e.g. outright correction, delayed corrections, and drafts), these processes revealed no significant effect on the quality of the translation, i.e. they did not improve the quality of TTs.

6.2.6.3.2. Patterns of behaviour

The following are Hasan's main patterns of behaviour, which were detectable in his protocols data:

- a) He produced the most detailed protocols, and generated the largest volume of problem-solving activities (=106 strategies). Despite this, he showed a low degree of success as a problem-solver, as evidenced by the fact that only 36 uses of strategies were successful and that he managed to solve only 11 (26.2%) translational problems from a total of 42 identified problems;
- b) He manifested a low degree of sensitivity to contextual appropriateness. On the whole, he displayed a noticeable comprehension-orientedness and showed a great deal of insensitivity to the readability of his TTs. He also showed a tendency to provide a word-for-word correspondence for many problematic items, a behaviour which resulted in many odd mistranslations.
- c) He exhibited some degree of misplaced confidence as regards the translation of some problematic items. In many cases, he drew inefficiently on his world knowledge and translation intuition and produced erroneous translations.
- d) He proved to be an inefficient dictionary user. For example, he made redundant consultations, displayed a misplaced trust in the appropriateness of the information in some dictionaries, and sometimes considered only part of the information provided by reference material.

6.2.7. Omar

6.2.7.1. Global assessment:

Omar's end product was rated as *a poor translation* (i.e. in the 2 band on Kiraly's scale), with abundant mistranslated lexical items. It contained a number of odd translations which significantly hampered the STs messages, and consequently reduced the overall quality of the translation. In many cases, Omar's translation was erroneously ST biased; that is, he resorted to faulty word-for-word correspondence without considering the appropriateness of the TT. The line of thought of the TTs was invariably incoherent, and the readability was quite unclear.

6.2.7.2. Error analysis

Table 6.8. below illustrates Omar's major mistranslation, together with the recommended translations for these errors.

Table 6.8: Omar's main translational errors

<i>Text</i>	<i>ST unit</i>	<i>Subject's translation</i>	<i>Recommended translation</i>
A	Halloween	0	حلا وين (Halloween)
B	VA	(VA) في أي	(Virginia State) ولاية فرجينيا
B	Put on hold	(telephone call) الاتصال الهاتفى	(put on hold) ينتظر على الهاتف
B	Determined	(annoyed) مزعج	(resolute) مصر
B	Stick it out	(lifting and putting down the handset) رفعها و إنزالها	(continues his call) يواصل الاتصال
B	Battle of wills	(battle of unrest) معركة من الاضطراب	(a state of challenge) في حالة تحدي
B	Are you being helped	(are you the helped) هل أنت المساعد	(have you been helped) هل تمت مساعدتك
C	Drug	(anaesthetic) مخدر	(medicine) علاج
C	Mucocutaneous reaction	(accidental reaction) ردة فعل عرضية	(mucocutaneous reaction) تفاعلات جلدية
C	Minor gastrointestinal disorders	(inner gastrointestinal disorder) عدم انتظام الجاستروانترتينال الداخلي	(Minor digestive disorder) اضطرابات هضمية محدودة

Text	ST unit	Subject's translation	Recommended translation
C	Hepatic disorders	الاضطراب الحركي (movement disorder)	اضطرابات الكبد (hepatic disorders)
D	Rare	رار (Raar (a proper name))	نادر (uncommon)
D	Dropping	انحطاط (deterioration)	التخلي عن (leaving)
D	Hitting the road	الذي يقتدي بطريقه (the one who follows his road)	يسافر (travel)
D	Unrestrained movement	حركات عفوية (accidental movements)	التنقل بحرية (free movement)
D	Souls	أرواح (spirits)	الناس (people)
D	Restless	متضجرة (troubled)	رحالة (on the move)
D	National folklore	تقاليدنا المفضلة (our favourite traditions)	تقاليدنا الوطنية (national traditions)
E	Miscommunication	الاتصال الخاطئ (faulty communication)	سوء الفهم (misunderstanding)
E	Verbal Get-Out-of-Jail card	بطاقة جايل الشفهية (Jail's verbal card)	الخروج من مأزق (escape from a critical situation)
F	Bias	0	انحياز (favouritism)
F	TT	تحول برقي (telegraphic transfer)	نص اللغة الهدف (target text)
F	ST	الوقت القياسي (record time)	نص اللغة الأصلية (source text)
F	TL	اللغة الدخيلة (المهدوفة) (the foreign (targeted language))	اللغة الهدف (target language)

Before describing the sources of Omar's major translational errors in table 6.8, it should be borne in mind that in addition to these errors, he made a number of less serious mistranslations whose description falls outside the scope of the present study as they only marginally affected the overall quality of the end translation, such as circumlocutions (e.g. adding variants)

In text A, Omar left the lexical item *Halloween* untranslated without justifying this action in his protocols. Regarding text B, he erroneously transliterated the abbreviation *VA* into Arabic, mainly because the dictionaries which he consulted were inadequate. Mistranslating *put on hold* on the other hand, was the result of Omar's unawareness of its idiomatic use, together with his apparent lack of concentration.

His misplaced confidence as regards the potential meaning of *determined* resulted in providing an erroneous Arabic equivalent (i.e. مزعج = annoyed). Moreover, upon realising the problematic nature of the idiom *stick it out*, Omar resorted to the dictionary but with no success. As a result, he hastily depended on his translation intuition and guessed its meaning, thus resulting in an inappropriate TT equivalent which considerably distorted the intended meaning contained in the ST (i.e. to continue his call). Similarly, the inadequacy of reference material, the unawareness of the metaphorical use (i.e. a matter of challenge), and the noticeable contextual-insensitivity made Omar resort to a haphazard translation for *battle of will*, the result of which was producing an odd TT equivalent (i.e. معركة من الاضطراب = battle of unrest) that would not make sense to the Arabic readership. The mistranslation of the expression *are you being helped* may be attributable to Omar's apparent lack of concentration.

As was the case with most subjects, text C proved particularly problematic for Omar, apparently because it contained a number of totally unfamiliar medical terms. To deal with such problematic items, he immediately employed the strategy of dictionary consultation (except for the word *drug* that he unwarily misinterpreted as *anaesthetic*), which was unsuccessful in all cases. As a result, he provided random translations which turned out to be inappropriate Arabic equivalents.

In translating text D, Omar made the largest number of lexico-semantic errors (=7 errors). This dramatically distorted the quality of his end translation. Judging from his verbalisations, this large volume of mistranslations is the result of a) the misuse of reference material, e.g. by failing to benefit from the information contained in the dictionary, b) context-insensitivity, as manifested by the fact that he did not evaluate his proposed translations against the given context, and c) lack of concentration, e.g.

when he took his understanding of a mistranslated item for granted without giving it adequate attention. Here, to illustrate the effect of Omar's lexico-semantic errors on the quality his translation, consider the following back-translation of his translation of the first sentence of text D:

ST: Rare is the American who has not dreamed of dropping whatever he is doing and hitting the road.

TT: إن رار هو الأمريكي الذي لم يجلم بالانحطاط وعلى أية حال فانه هو الشخص الذي يقتدي بطريقه

Back-translation: Raar is the American who did not dream of deterioration, but anyway, he is the person who follows his road.

As can be seen in the back-translation, Omar's misinterpretation of some problematic lexical items resulted in producing a totally irrelevant TT which failed to convey the intended message of the ST.

Regarding text E, Omar failed to realise the connotative meaning of the key word *miscommunication* (misunderstanding), as evidenced by the fact that he hastily opted for a faulty literal interpretation (i.e. الاتصال الخاطئ = faulty communication). By the same token, his unawareness of the metaphorical use of the expression *verbal-Get-Out-of-Jail card* (escape from a critical situation) resulted in producing an inappropriate word-for-word TT equivalent which is undoubtedly incomprehensible to the Arabic readership (i.e. بطاقة جايل الشفهية).

Not surprisingly, the abbreviated items in text F proved troublesome for Omar. To find their potential meanings, he immediately initiated a dictionary search. In dealing with *TT* and *ST* for example, the monolingual dictionary offered *telegraphic transfer* as the only definition for *TT* and *standard time* as the only denotation for *ST*. Regardless of their apparent contextual inappropriateness, Omar readily accepted *telegraphic transfer* and *standard time* as potential definitions and translated them

into the TL, consequently producing two odd Arabic equivalents (البريد البرقي, الوقت الرسمي) which significantly distorted the intended meaning contained in the ST. As for the abbreviated item TL, the dictionary offered no information, in which case Omar erroneously guessed its meaning as اللغة الدخيلة (the foreign language) and offered المهدوفة (targeted) as an alternative equivalent.

6.2.7.3.Global behaviour

6.2.7.3.1.Translation processing

As observed in his protocols data, Omar carried out the entire translation task in only one phase, the writing stage. He did not engage in any preparatory processing such as reading the ST for a general sense of its subject matter, or the search of unfamiliar lexical items. His approach to the ST was to directly translate unit by unit (his translation unit is mainly the word), and to solve translational problems whenever they arose. Moreover, he did not show any sign of editing, as he seemed to take his translations for granted.

6.2.7.3.2.Patterns of behaviour

Omar's most observable patterns of behaviour are as follows:

- a) He showed a moderate sensitivity to potentially problematic lexical items. He also displayed a marginally low degree of success (=35.3%) as regards solving translational problems;
- b) He demonstrated a noticeable context-insensitivity, as evidenced by the fact that he never questioned the contextual appropriateness of his proposed translations. This deviant behaviour resulted in the production of many odd TT equivalents;

- c) He proved to be an inefficient dictionary user. In many cases, he showed a misplaced trust in reference material when he readily accepted inappropriate information from the dictionary without testing it against the given context. He also showed a tendency to read and consider only part of the information provided by reference material;
- d) He displayed an unjustifiable confidence as regards his faulty knowledge of the meaning of some lexical items. That is, in some cases he took for granted his understanding of some lexical items despite his apparent misinterpretation.

6.2.8. Faisal

6.2.8.1. Global Assessment

A general assessment of Faisal's end product resulted in rating his translation as *an extremely poor one* (i.e. at the lower end of the 2 band on Kiraly's scale), with a large volume of highly inappropriate Arabic equivalents that distorted the readability of the TTs. Besides, his end translation contained a large number of inaccurately free renditions as well as redundant information.

6.2.8.2. Error analysis

The following table illustrates Faisal's main lexico-semantic errors which significantly impaired the readability of the TTs:

Table 6.9: Faisal's main translational errors

<i>Text</i>	<i>ST unit</i>	<i>Subject's translation</i>	<i>Recommended translation</i>
B	Biomedical	طبيب أحيائي (biology doctor)	فني طبي (medical technician)
B	VA	مستشفى عسكري تابع لقطاع بحري (military hospital in a naval sector)	ولاية فرجينيا (Virginia State)
B	Tracking down parts	يتفحص الأعضاء (inspect organs)	يحضر المواد الطبية (prepare medical appliances)

<i>Text</i>	<i>ST unit</i>	<i>Subject's translation</i>	<i>Recommended translation</i>
B	Battle of wills	بلغ السيل الزبي وكاد ينفذ صبره (reached his climax and almost became impatient)	في حالة تحدي (a state of challenge)
B	A state of disbelief	لم يكن يدور في فلكه أن أحدا على الجهاز بالمره (he did not think at all that someone is on the phone)	حالة من عدم التصديق (a state of disbelief)
C	Mucocutaneous reaction	جفاف الأنسجة المخاطية (the dryness of mucous membrane)	تفاعلات جلدية (mucocutaneous reaction)
C	Blood disorders	اضطرابات ضغط الدم (blood pressure disorders)	اضطرابات الدم (blood disorders)
D	Has not dreamed of dropping whatever he is doing	يتخلى عن أحلامه وأن يتخلى عما يريد فعله (leaves his dreams and abandons whatever he wants to do)	لم يحلم بالتخلي عن أي شيء يقوم بعمله (has not dreamed of dropping whatever he is doing)
D	Hitting the road	يفعل ما يبدو له ولا يتراجع (does whatever he likes and never retreats)	يسافر (travel)
D	Souls	أرواح (spirits)	الناس (people)
E	Vendors	متبضعين (buyers)	باعة (sellers)
E	Verbal Get-Out-of-Jail card	بطاقة بنكية للشراء (a bank card for purchasing)	الخروج من مأزق (escape from a critical situation)
F	Extreme	متطرفة (fanatic)	أقصى درجة (endmost)
F	Bias	0	انحياز (favouritism)
F	Interlineal translation	ترجمة بين السطور (between-lines translation)	ترجمة حرفية (literal translation)
F	SL	مدرسة (school)	اللغة الأصلية (source language)
F	TL	مدرسة (school)	اللغة الهدف (target language)
F	ST	المدرسة المتوسطة (the intermediate school)	نص اللغة الأصلية (source text)
F	TT	ترجمة نصية (textual translation)	نص اللغة الهدف (target text)
F	Global correspondence	توافق عالمي (international correspondence)	توافق عام (general correspondence)

In addition to the many marginally inaccurate free renditions of some lexical items, Faisal produced a total of twenty quality-influential erroneous translations, as seen in table 6.9. Judging from his protocols, almost all these major translation errors are

attributable to some kind of deviant behaviour on the part of the subject, e.g. the misuse of reference material.

In translating text B, for example, Faisal did not identify the word *biomedical* as a problematic item when he spontaneously mistranslated it as طبيب أحيائي (biology doctor), without considering the contextual clue *tracking down parts* which plainly suggests that the intended meaning is فني طبي (medical technician). As for the abbreviation VA (Virginia State), Faisal instantaneously consulted the monolingual dictionary which offered *vice admiral* as a potential definition. As a result, he readily accepted the dictionary's inappropriate information and redundantly added قطاع بحري (naval sector), consequently producing an odd Arabic equivalent that would not make sense to the Arabic readership. Soon afterwards, Faisal faultily interpreted *tracking down part* as يتفحص الأعضاء (inspecting organs), a mistranslation which apparently resulted from his previous misinterpretation of *biomedical* as biology doctor. Additionally, Faisal's lack of concentration, together with his tendency to propose free translations with superfluous information, resulted in spontaneously producing two erroneous TT equivalents for *battle of wills* and *state of disbelief*.

Regarding text C, Faisal misinterpreted the medical term *mucocutaneous*, mainly because he hastily searched for its meaning under the wrong headword in the bilingual dictionary, *Al-Mawrid*. That is, without realising, he searched under the word *mucoserous*, apparently because of its slight similarity in form with *mucocutaneous*. He also mistranslated *blood disorder* when he irrationally decided to add the redundant word *pressure* in his translation, a decision which significantly twisted the intended meaning.

Faisal's apparent unawareness of potential problematic items, context-insensitivity, and his tendency towards free-translation resulted in his producing three major mistranslations in text D. First, he failed to realise the negation in *has not dreamed of dropping whatever he is doing* when he incautiously provided a faulty affirmative TT equivalent which impeded the intended message of the ST. By the same token, he failed to realise the metaphorical use of *hit the road* (travel); thus he provided a superfluously random translation (i.e. يفعل ما يبدو له ولا يتراجع = does whatever he likes and never retreats), which turned out to be an inappropriate Arabic equivalent. Finally he misinterpreted *souls* as *spirits* without considering the apparent unsuitability of such an interpretation within the given context (i.e. people).

In translating text E, Faisal produced a marginally adequate TT, particularly when he exceptionally translated the highly problematic lexical item *miscommunication* as the Arabic appropriate equivalent سوء الفهم (misunderstanding). However, despite the relatively reasonable quality of translation of text E, he produced two mistranslations. Firstly, due to some lack of attention, he incautiously mistranslated *vendors* (sellers) as متبضعين (buyers). Secondly, he failed to realise the metaphorical use of *verbal Get-Out-of-Jail card* (i.e. escape from a critical situation) when he hastily guessed its meaning and consequently proposed a haphazard TT equivalent (i.e. بطاقة بنكية للشراء = bank card for purchasing), a translation which impaired the intended message of the ST.

In contrast with text E, the translation of text F was the worst of Faisal's end products. This is because text F contained the largest number of lexico-semantic errors (=8 errors), much of which were caused by abbreviated lexical items. Thus, in translating *extreme*, he carelessly misinterpreted it as denoting *fanaticism* without considering the

inappropriateness of such an understanding in the given context (i.e. endmost). He then irrationally left *bias* untranslated without justifying such an action in his protocols. His mistranslation of *interlineal* as بين السطور (between lines) is the result of his misuse of reference material when he readily accepted the dictionary's definition despite its apparent irrelevance to the context and subject matter of text F. Moreover, in his attempt to find solutions for the unfamiliar abbreviations, Faisal initially consulted the dictionary upon translating *SL*, but it proved useless. As a result, he abandoned the strategy of dictionary consultation and depended on his translation intuition when he proposed unfitting TT equivalents for all the abbreviated items, consequently reducing the readability and quality of the translation. Furthermore, upon translating *global correspondence*, Faisal failed to realise the collocational meaning of *global* (general) and opted for a rather literal translation (international) without considering its contextual inappropriateness, thus producing an unacceptable translation.

To further illustrate the effect of Faisal's translational errors on the quality of his end product, consider the following back-translation of text F:

ST: (a) At the extreme of SL bias is interlineal translation, where the TT does not necessarily respect TL grammar, but has grammatical units corresponding to every grammatical units of the ST. (b) At the extreme of TL bias is completely free translation, where there is only a global correspondence between the textual units of the ST and those of the TT.

TT: إن الترجمة التي تقع بين السطور- للأشياء الضمنية غير المذكورة- هي أساس المدرسة المتطرفة, بينما المدرسة الأخرى لا تظهر أي اعتبار للقواعد. لكن لها بعض الخضوع للقواعد وهذا يكون في المدرسة المتوسطة.

وفي تطرف المدرسة TL الحياد يكون للترجمة الحرة وحيث يوجد توافق عالمي بين الوحدات النصية للمدرسة المتوسطة والوحدات المتوسطة للمدرسة وكذلك الحال مع الترجمة النصية.

Back-translation: The translation which lies between lines -for implied things that were not mentioned- is the basis of the extreme school, whereas the other school does not show any consideration for grammar rules, but it sometimes follows the rules, and that is in the intermediate school.

At the extremism of the TL school, the neutrality is for the free translation, where there is an international correspondence between the textual units of the intermediate school and the intermediate units, as well as the textual translation.

6.2.8.3.Global behaviour

6.2.8.3.1.Translation processing

As can be observed in his protocols, Faisal carried out his translation task in only one major phase, namely the writing stage. The only exception to this is the translation of text F when he introduced a first draft which was followed by a final version with a few changes. For the rest of the texts, Faisal did not engage in any pre-writing activities, e.g. reading the ST for a general sense of its subject matter, nor did he generate any editing processes at the end of the translation task. Thus, the writing stage contained almost all the translation processing, such as the comprehension of ST units, problems identification, employment of problem-solving strategies, occasional editing, and TT production.

6.2.8.3.2.Patterns of behaviour

The following are Faisal's most observable patterns of behaviour:

- a) He showed a conspicuous insensitivity to potentially problematic lexical items, as manifested by the fact that he identified only 20 translational problems, the lowest

among all subjects. He also proved to be an unsuccessful problem-solver as he managed to find solutions for only 20% of the identified problems. Furthermore, in his attempts to solve the identified problems, he employed only 27 problem-solving strategies, fewer than any other subject;

- b) He displayed a high degree of context-insensitivity, as evidenced by the fact that he took his proposed translations for granted, without testing them against the context. He also showed a markedly misplaced confidence as regard his knowledge of the meaning of many misinterpreted lexical items. That is, in many cases, he took his understanding of many problematic items for granted and never identified them as potential problems, for the solution of which problem-solving strategy had to be employed. This attitude resulted in many odd mistranslations. In translating text D, for example, his wrongly assumed understanding of the meaning of all lexical items made him abandon the use of dictionary, thus resulting in the misinterpretation of three ST units;
- c) He exhibited a distinguishable inclination for free renditions of many ST lexical items, as well as a tendency to add redundant information (see back-translation of text F), a deviant behaviour which significantly reduced the quality of his translation;
- d) He showed a marked inefficiency in his use of the dictionary. For instance, he looked at reference material as the final authority and readily accepted its information. He showed an unawareness of dictionaries' shortcomings, as manifested by his explicitly favourable remarks towards reference materials despite their apparent inadequacies. He also made redundant dictionary searches.

6.2.9. Badir

6.2.9.1. Global assessment

The investigator of the present study rated Badir's end product as *an extremely poor translation* (i.e. at the very bottom of the 2 band on Kiraly's scale). It contained a large volume of mistranslated units, a factor that considerably reduced the overall quality of the end translation. In many instances, the translation was considered ST biased (i.e. faulty word-for word correspondence), and this resulted in producing some odd mistranslations, as well as negatively affecting the contextual coherence of the TT. Thus, the line of thought of the TTs was unclear and incoherent.

6.2.9.2. Errors analysis

As stated earlier, Badir produced a large number of erroneous translations. Table 6.10 below illustrates Badir's most serious translational errors that had a far-reaching effect on the quality of the end product:

Table 6.10: Badir's main translational errors

<i>Text</i>	<i>ST unit</i>	<i>* Subject's translation</i>	<i>Recommended translation</i>
A	Halloween	0	حلا وين (Halloween)
B	Biomedical	مهندس دراسات كيميائية طبية (an engineer of chemical and medical studies)	فني طبي (medical technician)
B	VA	VA	ولاية فرجينيا (Virginia State)
B	Tracking down parts	البحث عن القطع اللازمة لدراسته (searching for parts necessary for his study)	يجهز المواد الطبية (prepare medical appliances)
B	Stick it out	حالة من التضجر (a state of annoyance)	يواصل الاتصال (continues his call)
C	Drug	مخدر (anaesthetic)	دواء (medicine)
C	Mucocutaneous reactions	التفاعلات الماكوكاتينوسية (almakokatinosiah reactions)	تفاعلات جلدية (mucocutaneous reactions)

<i>Text</i>	<i>ST unit</i>	<i>Subject's translation</i>	<i>Recommended translation</i>
C	Blood disorders	عدم الانتظام في تدفق الدم (irregularity in blood flow)	اضطرابات الدم (blood disorders)
C	Minor gastrointestinal disorders	عدم الانتظام البسيط في القاسترونستينال (the minor irregularity in al-gastrointestinal)	اضطرابات هضمية محدودة (minor gastrointestinal disorders)
C	Hepatic disorders	فقدان الانتظام الهيباتيكي (the loss of the regularity of alhibatiki)	اضطرابات الكبد (hepatic disorders)
D	Rare	رير (Rare (a proper name))	نادر (uncommon)
D	Dropping	السقوط أو الانحلال (falling or dissolution)	التخلي عن (leaving)
D	Hitting the road	الطريقة التي يسلكها (the method he follows)	يسافر (travel)
D	Unrestrained movement	حركة عشوائية (random movement)	التنقل بحرية (free movement)
D	Souls	أرواح (spirits)	الناس (people)
E	Miscommunication	عدم الترابط الإنساني (lack of human connections)	سوء الفهم (misunderstanding)
E	Verbal Get-Out-of-Jail card	البطاقة الشفهية للخروج من الجحيم (the verbal card for going out of hell)	الخروج من مأزق (escape from a critical situation)
F	SL	الوقت الرسمي (official time)	اللغة الأصلية (source language)
F	Interlineal translation	ترجمة ما بين السطور (between-lines translation)	ترجمة حرفية (literal translation)
F	TT	التحول البرقي (telegraphic transfer)	نص اللغة الهدف (target text)
F	ST	الوقت الرسمي (official time)	نص اللغة الأصلية (source text)

Table 6.10 shows clearly the major translational errors which Badir made in his finalised translation. It also illustrates the variable density of errors from one text to the other, ranging from one error in text A to a total of 5 errors in texts C and D. Judging from Badir's protocols, those errors were attributable to a number of factors, such as the total unfamiliarity of a given lexical item, context-insensitivity, unawareness of potential problems, and misuse of reference material, to name but a few.

In text A, for instance, Badir opted for leaving the problematic lexical item *Halloween* untranslated without justifying this decision in his protocols.

In translating text B, Badir produced four serious mistranslations. First, upon realising the unfamiliarity of the lexical item *biomedical*, he employed the strategy of word-segmentation as well as the strategy of dictionary consultation, but with no success. Therefore, he decided to go for a 'hit-or-miss' translation, which turned out to be a faulty Arabic equivalent. Similarly, the dictionary's failure to provide adequate information of the abbreviated item *VA* (Virginia state), made Badir resort to the strategy of copying (i.e. the problematic item *VA* was copied into the TT in its original alphabetical form), a technique which resulted in a mistranslation. On the other hand, Badir's lack of concentration, as manifested by his unwary misinterpretation of *tracking down parts*, caused him to hastily provide a haphazardly irrelevant TT equivalent. Regarding the mistranslation of *stick it out* (to continue his call) as *حالة من التضجر* (a state of annoyance), the analysis of the protocols revealed that it was the result of the dictionary's inadequacy as well as Badir's context-insensitivity, i.e. failing to test his random translation against the context.

In translating text C, Badir incautiously misinterpreted *drug* (medicine) as *anaesthetic*, despite its conspicuous contextual unsuitability. His lack of concentration also resulted in the haphazard mistranslation of *blood disorders*. Moreover, the inadequacy of reference material in failing to provide information on the medical terms *mucocutaneous*, *gastrointestinal*, and *hepatic* as well as Badir's assumed unawareness of the availability of standard equivalents in Arabic made him resort to the strategy of transliteration (i.e. transcribing the ST item into the corresponding letters of the TL), accordingly producing inappropriate TT equivalents that were incomprehensible to the Arabic readership.

Badir's context-insensitivity, among other factors, resulted in producing 5 major errors in text D. First, he incautiously mistook the word *rare* (uncommon) for a proper name, seemingly because of its unusual position at the start of the text. Besides, Badir's failure to benefit from adequate information to be found in reference material as well as his unwary behaviour towards the textual appropriateness of his proposed translations of problematic items, made him inefficiently resort to an erroneous literal rendition for *dropping*, i.e. falling. Likewise, Badir's unfamiliarity with the metaphorical meaning of the idiom *hit the road* (i.e. travel), along with his lack of concentration (i.e. failing to identify it as a potential problem whose translation requires the employment of problem-solving strategies) and context-insensitivity, resulted in his carelessly producing الطريقة التي يسلكها (the method he follows), a faulty Arabic equivalent that impaired the ST message. Additionally, Badir misinterpreted *unrestrained* (free) as عشوائية (random) despite his consultation of the dictionary, which offered adequate information that was clumsily rejected. Lastly, he displayed a misplaced confidence and context-insensitivity when he incautiously commented: "طبعاً أرواح = of course spirits" upon translating the word *souls*, thus producing a contextually unfitting TT equivalent that distorted the intended meaning (i.e. people).

In text E, Badir mistranslated the two most important key units, namely the word *miscommunication* and the metaphor *verbal Get-Out-of-Jail card*. First he failed to realise the connotative meaning of *miscommunication* (i.e. misunderstanding) when he hastily mistranslated it as عدم الترابط الإنساني (lack of human connections), a translational error which significantly impaired the intended message. Regarding *verbal Get-Out-of-Jail card*, Badir's unfamiliarity with its metaphorical meaning (i.e.

escape from a critical situation), context-insensitivity, and lack of attention resulted in producing a relatively literal TT equivalent, which turned out to be a totally inappropriate translation that distorted the intended message.

In translating text F, Badir produced four extremely odd translations, which significantly impaired the readability of the TT. He erroneously translated *SL* as الوقت الرسمي (official time), interlineal as بين السطور (between lines), TT as التحول البرقي (telegraphic transfer), and ST as الوقت الرسمي (official time). In all cases, the mistranslation was caused by Badir's misuse of reference material when he incautiously accepted the information offered by the dictionary despite its apparent contextual inappropriateness. Additionally, Badir's lack of concentration is another determining factor in making these clumsy translational errors, because if he had considered the subject matter of text F (i.e. types of translations) carefully he would definitely have realised the irrelevance of, for example, الوقت الرسمي (official time) and البريد البرقي (telegraphic transfer) to the subject matter.

6.2.9.3. Global behaviour

6.2.9.3.1. Translation processing

Badir's main approach to the ST was to read through the entire text once or twice for a general sense. He then began a spontaneous writing of his translation which was only interrupted when a problematic item was detected, to be immediately followed by solution generation (e.g. dictionary consultation). Throughout this period, Badir showed little sign of editing or backtracking to previously unsolved problems. Additionally, he did not edit or evaluate his finalised translation.

6.2.9.3.2. Patterns of behaviour

Based on the analysis of his protocols, the following are Badir's most observable patterns of behaviour.

- a) He showed some degree of insensitivity to potential problematic lexical items. He also proved to be an unsuccessful problem-solver as he managed to solve only 25.8 % of his identified translational problems;
- b) He displayed unwary behaviour towards the contextual appropriateness of his mistranslated lexical items. On the whole, he was comprehension-oriented, as he showed little respect for the target reader when he failed to evaluate his finalised translation, despite its extreme incoherence;
- c) He demonstrated a great deal of misplaced confidence as well as some degree of carelessness, particularly with regard to the meaning of potentially problematic items;
- d) He exhibited a markedly inefficient behaviour as regards the use of reference material. In many cases, he failed to elicit appropriate variants provided by the dictionary. He also seemed to have the tendency to readily accept unsuitable dictionary information, without checking its contextual appropriateness.

6.2.10. Faris

6.2.10.1. Global assessment

The general evaluation of Faris's end product revealed that he produced the worst translation among all subjects of the present experiment. His finalised translation was rated as *an unacceptable translation* (i.e. in the 1 band on Kiraly's scale), with a large volume of translational errors. Additionally, his translation contained abundant cases of unjustified additions as well as unsuitable omissions in the translation manuscript.

The line of thought of the TTs was invariably unclear and incoherent; i.e. the reader of the end translation would find it a difficult task to elicit the intended message of the STs.

6.2.10.2. Error analysis

In table 6.11 below, Faris's most serious mistranslations are listed together with the recommended translations. Here, it should be noted that text E is not included in the analysis, mainly because Faris failed to translate it during the experiment's allotted time, due to his slow progression in carrying out the translation task:

Table 6.11: Faris's main translational errors

<i>Text</i>	<i>ST unit</i>	<i>Subject's translation</i>	<i>Recommended translation</i>
B	Biomedical	خبير تحضير الأدوية (an expert in medicine manufacturing)	فني طبي (medical technician)
B	VA	VA	ولاية فرجينيا (Virginia State)
B	Tracking down parts	تحليل الأجزاء (analysing parts)	يجهز الأدوات الطبية (preparing medical appliances)
B	Stick it out	ترك السماعة (left the telephone handset)	يواصل الاتصال (continues his call)
B	Battle of wills	معركة مع الإرادة (battle with will)	في حالة تحدي (a state of challenge)
C	Mucocutaneous reaction	ردة الفعل "mococ.." (mococ's reaction)	تفاعلات جلدية (mucocutaneous reaction)
C	Blood disorders	عدم تنظيم الدم (disorganisation of blood)	اضطرابات الدم (blood disorders)
C	Hepatic disorders	اضطرابات الشهية (appetite disorders)	اضطرابات الكبد (hepatic disorders)
D	Has not dreamed	يحلم (dreams)	لم يحلم (has not dreamed)
D	Hitting the road	يضرّب به عرض الحائط (to brush it aside)	يسافر (travel)
D	Unrestrained movement	عدم السيطرة (lack of control)	التنقل بحرية (free movement)
D	Bequeathed	بتوالي (successively)	متوارث (handed down)
D	Souls	أرواح (spirits)	الناس (people)
D	Restless	0	رحالة (on the move)

<i>Text</i>	<i>ST unit</i>	<i>Subject's translation</i>	<i>Recommended translation</i>
D	Continent	0	قارة (continent)
D	National folklore	حياتنا العامة (our public life)	تقاليدنا الوطنية (national tradition)
F	Bias	0	انحياز (favouritism)
F	SL	SL	اللغة الأصلية (source language)
F	Interlineal translation	ترجمة المبطنة أو الداخلية (implied or internal translation)	ترجمة حرفية (literal translation)
F	TT	TT	نص اللغة الهدف (target text)
F	Respect	استخدام (usage)	يراعي (consider)
F	TL	TL	اللغة الهدف (target language)
F	ST	ST	نص اللغة الأصلية (source text)
F	Global correspondence	تشابه طفيف (minor similarity)	توافق عام (general correspondence)
F	Textual units	محتويات الوحدات (the contents of units)	الوحدات النصية (textual units)

In addition to the many inaccurately translated units (e.g. redundant information), Faris, as shown in table 6.11, produced a total of 25 major translational errors that had an extensive effect on the readability of the end translation, i.e. totally impairing the intended message.

In text B, for instance, Faris made 5 serious mistranslations. First, after an unsuccessful search in the dictionary for the meaning of *biomedical* (medical technician), Faris randomly provided the inappropriate TT equivalent *خبير تحضير الأدوية* (an expert in medicine manufacturing). Second, by the same token, the inadequacy of the dictionary made Faris resort to the strategy of copying (the ST item is copied into the TT in its original alphabetical form) in translating *VA*, a faulty approach which resulted in a major mistranslation. Third, he erroneously translated *tracking down parts* as *تحليل الأجزاء* (analysing parts), mainly because he failed to extract the adequate information from the dictionary as well as from contextual clues. Fourth, upon

identifying the idiom *stick it out* as a problematic item, Faris immediately initiated a dictionary search, yet his inexperienced use of reference material (i.e. not considering all variants) resulted in a failure to deduce adequate dictionary information. Thus, he haphazardly proposed *ترك السماعة* (left the telephone handset), a mistranslation which reversed the intended message (i.e. continued his call). Fifth, in translating *battle of wills*, it was evident that Faris was not aware of its metaphorical meaning (a state of challenge). As a result, he hastily provided a faulty word-for-word version, without evaluating his translation against the context.

In translating text C, Faris failed to provide adequate translations for three medical terms. Firstly, he mistranslated *mucocutaneous reaction*, largely because of the inadequacy of the dictionary. Then, in translating *blood disorders* and *hepatic disorders*, Faris did not consult reference material and took his faulty understanding of these two items for granted, consequently producing two inappropriate TT equivalents.

Regarding text D, Faris made 8 major translational errors that significantly reduced the readability of the TT. His first serious error was his failure to retain the negation in *has not dreamed* into the TT, as he erroneously produced an affirmative meaning (i.e. dream) in his end translation. He then showed context-insensitivity as well as unwary behaviour towards potential problems, when he hastily misinterpreted the idiom *hitting the road* (travel) as *يضرب به عرض الحائط* (to brush it aside), despite the apparent contextual unsuitability of such a translation. Additionally Faris misinterpreted *unrestrained movement* (free movement) as *lack of control*, mainly because of his inefficient use of reference material when he failed to properly deduce the meaning from the adequate information offered by the dictionary. In like manner, Faris's mistranslation of *bequeathed* as *بتوالي* (successively) was the result of his

inefficient use of reference material when he failed to extract the appropriate TT equivalent provided by the dictionary, i.e. *handed down*. Faris's context-insensitivity led him to incautiously translate *souls* as أرواح (spirits), a contextually unfitting TT which distorted the intended meaning (i.e. people). Finally, Faris's lack of attention resulted in leaving *restless* and *continent* untranslated in the final manuscript, as well as introducing a thoughtless mistranslation (i.e. حياتنا العامة = our public life) for the straightforward ST items, *national folklore*.

Here, to show the negative effect of Faris's major errors on the readability of the STs, as well as the overall quality of his translation, consider the following back-translation of text D. For the sake of illustration, the cases of faulty additions and omissions will be underlined:

ST:

Rare is the American who has not dreamed of dropping whatever he is doing and hitting the road. The dream of unrestrained movement is a distinctly American one, an inheritance bequeathed by those restless souls who populated the American continent. Travel is part of our national folklore.

TT:

من النادر أن يحلم الأمريكي بترك ما هو فاعل ربما فعل وأن يضرب به عرض الحائط. والحلم بعدم السيطرة هو ما يفهمه الأمريكي "أو ما يتبادر إلى ذهن الأمريكي" وهو ما يورث بتوالي من تلك الأرواح التي تعايش وتستطيع السيطرة، والترحال هو جزء من حياتنا العامة.

Back-translation:

Rare is the American who dreams of leaving what he is doing he might have done and to brush it aside. The dream of lack of control is what the American understands "or what comes to the mind of the American", what is inherited successively from those spirits which coexist and can control. Travel is part of our public life.

The back-translation of Faris's translation of text D illustrates clearly the low quality of his end product. It is quite obvious that he failed to convey the ST's message into the TT, and that the line of thought of his translation is completely illogical, if not absurd. Moreover, the underlined items are an evident manifestation of his deviant behaviour in incorrectly adding information in the TT, which has no counterpart in the ST.

Finally, in translating text F, Faris made the largest volume of translational errors (=9 errors). Firstly, his lack of concentration resulted in leaving the key word *bias* untranslated. He also failed to properly translate the abbreviated items *SL*, *TT*, *TL*, and *ST*, mainly because of the inadequacy of reference material in all cases. As a result, he decided to opt for the strategy of copying in dealing with these problematic abbreviations, a decision which resulted in the introduction of unacceptable Arabic equivalents that would unquestionably be incomprehensible to the Arabic audience. Additionally, he misinterpreted *interlineal* (literal) as denoting the meaning of *implied* or *internal*, largely because of his unskilled use of reference material when he readily accepted the dictionary's information despite its apparent contextual inappropriateness. In the same way, Faris's failure to extract adequate information provided by reference material resulted in the haphazard mistranslation of the three units, *respect*, *global correspondence*, and *textual units*, respectively.

6.2.10.3. Global behaviour

6.2.10.3.1. Translation processing

As shown in his protocols, Faris carried out the translation task in only one stage, the writing stage. That is, he was not involved in any preparatory activities, such as reading the entire ST for general understanding, or any editing or evaluative activities

at the end of his translation task. His approach to the ST was that of directly translating a word by word (his unit of translation was mostly individual words or strings of words), instantly dealing with identified problematic items, and making no editing or backtracking to previous elements. His translation processing was also clearly slow, particularly his use of reference material, resulting in his leaving text E untranslated.

6.2.10.3.2. Patterns of behaviour

Based on the analysis of his verbalisations, the following are Faris' main observable patterns of behaviour:

- a) He displayed a foreign language deficiency, as manifested by his recurrent misinterpretation of the information contained in the monolingual dictionary, as well as his search for the meaning of straightforward lexical elements;
- b) He showed some degree of insensitivity to some potential translational problems. He also proved to be an unsuccessful problem solver, as evidenced by the fact that, although he employed a total of 57 uses of problem-solving strategies, only 12 of these were successful. As a result, he managed to bring about solutions for only 9 (27.3 %) of his identified problematic lexical items (i.e. 33 problems);
- c) He demonstrated a high degree of comprehension-orientedness. That is, he showed little respect for contextual appropriateness and TT readability, and seemed to take his translations for granted without evaluating them against the context. He also failed to deduce the meaning of problematic items from conspicuous contextual clues;
- d) He proved to be the most incompetent user of reference material among all subjects. His inefficient use of the dictionary included, to name but a few

examples, the slow speed at which the dictionary was consulted, the frequent misinterpretation of the information in the monolingual dictionary, the consideration of only part of the information provided by the dictionary, the hasty acceptance of the first variants given in the dictionary despite their apparent contextual unsuitability, the unnecessary consultations, and the search under a wrong headword in the dictionary.

- e) He displayed a noticeable mismanagement of time, as manifested by his inability to continue the task of translation in relation to text E.

6.3. Concluding Remarks

To sum up the detailed evaluation of the subjects' translation performance reported in this chapter, the following are the main noticeable observations:

1. With the exception of Zaid, the quality of the subjects' translations was invariably low. This could be the result of some deficiency in the subjects' translational and SL competence, as well as the difficult nature of the STs, for they contained a large number of potentially problematic units. In many instances, the line of thought of the Arabic texts was illogical, if not absurd, mainly because of the introduction of many odd mistranslations of some ST lexical items, e.g. translating the abbreviated item TT (target text) as البريد البرقي (telegraphic transfer) in text F, despite the fact that the subject matter was 'types of translations', i.e. within subjects' area of study. That is, although the subjects are native speakers of Arabic, some of their TTs were written in extremely poor Arabic.
2. Regarding the sources of errors, a combination of factors was detected. These are:
 - a) the total or partial unfamiliarity of the lexical item, b) carelessness or lack of concentration, c) having comprehension goals in mind and lacking production

orientedness, d) context-insensitivity, i.e. translating lexical items as isolated units, e) unawareness of potential problems, f) deficiency in the foreign language, g) inadequacy of reference materials, h) misuse of the dictionary, i) problematic nature of the lexical item, j) subject's misplaced confidence in relation to his faulty understanding of a given lexical item, and k) misuse of world knowledge and experience.

Sources of translational errors have also been the focus of a number of similar translation studies. Kussmaul (1995:21) for example, points out that it is typical of non-professional translators to know one meaning of a word which has a number of potential meanings, and that it is often the case that unknown meanings are figurative. What happens in this case is that the subject activates the only meaning which he has stored in his memory despite its contextual inappropriateness. Thus, the semantic reason for this mistake can be seen in the fact that the word under translation is polysemous. He also adds (ibid.:24) that one of the reasons for erroneous translations is the subjects' belief in the dictionary as the final authority, without considering the context, and looking at words as isolated units. In the same way, Aissi (1987:89) points out that some lexical errors are caused by the translator's negligence of the secondary meaning (i.e. contextual meaning), and the fact that s/he opts for the primary meaning which the word may inherently suggest, and which is usually the first equivalent found in the bilingual dictionary. Altman (1994:34) also identifies a number of causes of translational errors. They are a) excessive concentration on a preceding item, thus resulting in a lack of attention, b) difficulty in finding the correct contextual equivalent for a given lexical item, c) drawing erroneously on the subject's world knowledge, and d) inadequate mastery of the SL, a shortcoming which may lead to misunderstanding and therefore mistranslation of the ST. Additionally, Thelen

(1990), in her study of sources of errors in the translations of non-professional translators, states that:

For the act of translating, students have various aids at their disposal, including monolingual and bilingual dictionaries, synonym dictionaries and thesauruses, but very often these appear not particularly helpful -judging by the mistakes made in the translation-, not so much because these reference books are not exhaustive, because they are imprecise or otherwise lacking, but because students fail to analyse the information given in a 'correct' manner. This problem is apparent on both the decoding and encoding sides of translation process. Not only plays the (mis)interpretations of dictionaries -i.e. of word's meaning in isolation- a role, but also the (mis)interpretation of the word's meaning within the context of the text to be translated. And all this may have to do with the particular translation strategy that students apply. Quite often, their unit of translation appears to be the word rather than the sentence. (Thelen 1990:288)

3. The subjects' approach to the ST was highly variable. Very few subjects undertook preparatory work, such as reading the ST through once or twice and looking up unknown lexical items, or reading the ST once or twice in the prewriting stage for a general sense, engaging in solving problems and TT production at the writing stage, and doing some editing at the post-writing stage with the aim of improving the quality of their translation. The majority of subjects, rather, carried out their translation task in only one stage, the writing stage, and did no introductory activities (e.g. reading the entire ST) or any remedial editing at the closing stage of the translation process, e.g. evaluative reading of their end translation.

In contrast to this irregular approach, the subjects in Jaaskelainen (1990:143) showed a more consistent approach to the ST. They read the ST through once or twice, then either checked the unfamiliar words in reference material or moved straight to the writing stage, where most of the research in the dictionary, text production and editing was carried out. In the post-writing stage, the produced translation was read through once and edit changes were made, if necessary. One possible explanation for such diversity in the progression through the ST between Jaaskelainen's subjects and the present subjects lies in the fact that, while the subjects in Jaaskelainen's study were more professional translators, as they had proper translation training in how to approach translation tasks, the subjects of the present experiment did not have such translating exercises in their previous translation training.

4. There seems to be a considerable correlation between the skill in using reference material and the quality of the translation. For example, Zaid's efficient use of the dictionary helped him to solve many of his identified translational problems and to consequently produce the best translation of all subjects. In contrast, Faris's noticeable incompetence in his consultation of the dictionary resulted in his solving only a small share of his identified problems, accordingly producing the worst translation of all subjects. As observed in the subjects' protocols, examples of skilled use of the dictionary included a) choosing the right dictionary at the right time, i.e. knowing when and where to search for the potential meaning of a problematic item, b) reading and considering all the information provided by the dictionary, and c) evaluating dictionary variants against the context of the text under translations. On the other hand, examples of unskilled use of reference material included a) unnecessary use of reference material, e.g. searching for the

meaning of one lexical item in the same dictionary more than one time, b) incautiously trusting the information offered by the dictionary without evaluating its contextual appropriateness for the translation, c) searching under the wrong headword, d) considering only part of the dictionary's information, e) misinterpreting the information in reference material, etc.

5. The carelessness phenomenon (i.e. lack of attention) of some subjects proved to be a determining factor in the worsening of their end translations. This is because it can happen that a lack of concentration may result in the subject's failure to identify potential problems, as they pass unnoticed, thus leading to the production of an erroneous translation which would ultimately reduce the quality of the end product.
6. One of the most strikingly deviant behaviours of the majority of subjects in the present experiment is their insensitivity to the contextual appropriateness of their translations. Apparently, this attitude is the result of the fact that they had comprehension goals in mind; i.e. they looked at ST items as isolated units, a typical feature of foreign language learners. As revealed in their verbalisations, these subjects seemed to take their comprehension of individual units for granted without ever testing this understanding against the context of the translation. This irrational attitude resulted in some subjects' failure to deduce the meaning of problematic items from apparent contextual clues, as well as in producing many odd translations (e.g. faulty word-for-word renditions) that significantly reduced the readability and overall quality of their TTs.
7. Two extremes of translations were identified in the translations of some subjects: One is manifested by some subjects' occasional tendency to produce an interlineal

translation, i.e. literal translation that can be described as too faithful to the ST; the other extreme, by contrast, is a free translation of some ST units.

8. There seems to be some connection between generating preparatory activities, such as reading the entire ST for a general sense and for identifying potential problems, and a higher translation quality. Likewise, evaluative reading of the end product seems to enhance the quality of translation. A case in point of these two positive behaviours is easily observable in the translation processing of Zaid and Hameed who produced a higher translation quality than the rest of the subjects.
9. Some of the less competent subjects (e.g. Faisal) showed a tendency to add redundant information to their translation. On the other hand, some incompetent subjects demonstrated an inclination to leave some insoluble problematic units untranslated (i.e. to leave a gap in the TT). Both attitudes resulted in gravely worsening the quality of the end translation.
10. It seems that some subjects' use of the strategy of avoidance (i.e. leaving a gap in the translation manuscript) in dealing with insoluble problems is an attempt to avoid the potential production of odd translations. An explicit example of this is found in Thamir's verbalisations.
11. The majority of subjects showed a low degree of ambiguity-tolerance, i.e. allowing the meaning of problematic lexical items to emerge from the whole text. Quite often, these subjects provide random translations for unsolved problematic items before moving on to a subsequent stage.

CHAPTER SEVEN

7. Didactic implications for the training of the translator

7.1. Introduction

Having discussed translational problems, problem-solving strategies and the end product of trainee English-Arabic translators in the foregoing chapters, let us turn to some of the didactic implications, which can be drawn from this discussion. In fact, what motivated me to embark on the theme of didactic implications for translator training is the noticeable translation incompetence displayed by the subjects of the experiment which may reflect some deficiency in their translation training. Thus, the pedagogical implications presented in the present chapter are aimed at providing some useful didactic insights for translation trainees.

This chapter is an attempt to identify the main drawbacks of the subjects' translation training (with particular reference to Saudi universities), which draws on the observations reported in the present study, the investigator's personal experience (both as a student and as a teacher), discussion with some fellow-translator educators and translation trainees, and readings in the relevant literature; together with some recommendations for dealing with such flaws in pedagogical translation. Finally, it is hoped that the didactic implications presented in this chapter will provide a step forward towards bridging some of *the pedagogical gap* (Kiraly, 1995:5) in university translation training.

7.2. Shortcomings of subjects' translation training

In section 2.2, a general overview of the pedagogical gap in current translation training was presented together with some new initiatives aimed at opening new horizons for the establishment of a systematic translation instruction. Here, an evaluation of the main characteristics of translation training at Saudi universities will be presented along with some recommendations dealing with the main flaws which seem to hamper these translation programmes.

- 1- The analysis of the subjects' protocols and end product revealed the result that they lack a communicative competence in their translation performance. That is, the subjects of the present study exhibited a great deal of comprehension-orientedness (i.e. ST-biased) and showed little interest in the readability and line of thought of the TT (c.f. chapter 6). The result of this deviant behaviour is a low translation quality. In the majority of cases, subjects' translation errors are attributed to their non-communicative attitude towards the translation task which led to the production of many faulty word-for word- renditions (e.g. translating the idiom *hit the road* as *يرتطم بالطريق*, c.f. table 6.4). The subjects' lack of communicative translation competence is undoubtedly the result of the status of their translation training programme within the curriculum. In the majority of translation programmes at Saudi universities, translation is perceived as a language exercise for promoting general proficiency in the foreign language, and not a discipline in its own right. Unfortunately both instructors and trainees share this unfavourable attitude despite the fact that the graduates of such programmes are expected to work as professional translators as well as qualified teachers of English as a foreign language. One apparent explanation for this traditional

approach to translation instruction and learning is the fact that the aims of translation courses are not defined clearly. This explanation gains support from Konigs' survey (reported in Kussmaul 1995:33), conducted among teachers of translation, which yielded the result that "the instructors in question had not given any thought whatsoever to the aims and purpose of a course in translation." That is, in translation classes trainees are introduced to 'school-type translation' (Gile 1992:187) because of the lack of goal-oriented curricula. Translation is introduced "reluctantly, often only because students need to pass in translation components of examinations" (Malmkjaer 1998:1). Translator trainees are encouraged to come to translation classes with comprehension goals in mind, that is, learning new vocabulary to improve their foreign language competence. Consequently, trainees approach their translation tasks with the understanding that word-for-word translating is what they are expected to do. With this view in mind, translation trainees often fail to create the target text which would provoke a communicative response in a TT audience. Another crucial factor which seems to undermine the status of translation is the instructors' lack of motivation as they usually take translation courses as a curriculum requirement. Translation classes are often delegated to junior and inexperienced members of staff who take translation courses as an easy starting point in their teaching profession. Trainees' distorted idea of the status of translation could also be attributed to their lack of motivation and competence as manifested by their non-communicative attitude to the translation task in the present experiment. A further feature of university-level translation training is the inadequacy of time devoted to translation classes. On average, students are given three hours of translation instruction per week.

In order to enhance the status of translation training within the university curriculum and to eliminate the unfavourable view that translation is a testing procedure to measure learners' comprehension of the foreign language, a number of points should be taken into consideration:

- a) The aims of the translation programme should be defined precisely by means of designing well-constructed curricula, which take into account the communicative nature of translation. Translation trainees should be taught to avoid the traditional misconception that translation classes are disguised comprehension drills which involve little more than the automatic replacement of individual ST units with TL individual equivalents, and should aim at approaching translation as an end in itself. This means that trainee translators are encouraged to have comprehension as well as production goals in mind (i.e. reader-orientedness) when they carry out a translation task.
- b) Translation classes should be delegated to senior members of staff who have motivation and experience in translation pedagogy.
- c) We should increase the time allotted to the teaching of translation within the general curriculum, as this would enhance the status of translation training.
- d) Because translation is a skill which requires motivation, we should follow Snell-Hornby's (1992:19) call for a selection of candidates that are motivated and talented enough to qualify for the translation programme by means of some kind of entrance examination, combined with personal interview.
- e) An introductory course in translation theory to precede translation classes proper with the aim of acquainting learners with the basic principles of the process of

translation. In this preparatory course, it is important that instructors encourage trainees to operationalise their acquired theoretical knowledge as part of the translation process. An alternative to an introductory translation theory course would be to develop a coursebook for translation trainees which links translation theory directly to practical translation work (e.g. along the lines of Hervey and Higgins' coursebook *Thinking Translation* 1992).

f) Giving students specific translation assignments (i.e. translating for an audience). This would help them to rule out the belief that the objective of the translation assignment is to inform the teacher of their knowledge of the vocabulary of the foreign language. Learners aim in the translation task should be directed towards informing the readership about the contents of the ST.

2- The analysis of the subjects' verbalisations and end translations revealed the result that, on the whole, they lacked creativity and evaluative attitude and that they approached their translation task in a haphazard fashion (c.f. chapter 6). Only on few occasions did the subjects of the present study question the appropriateness of their proposed translations. Likewise, the majority of subjects showed no sign of creativity particularly when faced with lexico-semantic problems (e.g. the strategy of avoidance). The noticeable absence of creativity and evaluative attitude in the subjects' translation performance can be linked to the lack of a dynamic methodology for translation instruction in Saudi universities. The usual pattern of translation training is a traditional one: it "consists of setting short passages for translation, with specified hand-in date. The scripts are corrected by the tutor at home, and the class time is spent going over the translations the students have submitted, together with the "fair version" (Sewell and College 1996:138). This teacher-focused approach to translation

training is centred around the instructor's model translation, a practice which ignores the role of trainees in the learning process. Translation trainees' creativity is hampered by this passive approach because of their common belief that only one version is correct, the instructor's. Learners therefore work hard to avoid transgressing the instructor's model as this would lead them to lose some precious marks (ibid.). The teacher-centred approach also undermines trainees' self-confidence because the instructors' main concern is to spot learners' deviations from the "ideal" translation, thus giving little room for trainees' stylistic preferences. In teacher-biased translation training, instructors are always tempted to discuss only trainees' errors and to refrain from praising good solutions and specialized knowledge produced by some learners which can be shared with the rest of the group. Kussmaul (1995: 32) in this context points out that translator trainees lose their self-confidence as a result of the criticism of their teachers whose common teaching method is largely dependent on the phrase "my-version-runs-as-follows", a procedure which may be attributed to the fact that "instructors very often have no clear idea about what they are doing" (ibid.:33). He adds that with the teacher-centred instruction method, trainees tend to lose their adventurous, dynamic and vigorous nature, to be replaced by a rather "weak personality structure" (ibid.:32). In the present study, for instance, the negative effect of teacher-oriented translation pedagogy on how the subjects approached their translation task was reflected by their apparent lack of evaluative attitude as well as the absence of creativity.

Thus, because of the apparent passivity of the method practised in Saudi universities to teach translation (i.e. teacher-centred instruction), the following are

a number of suggestions aimed at improving these inappropriate teaching practices:

- a- We should foster students' creativity and self-confidence by moving from the strict teacher-oriented method towards a more dynamic instruction approach, such as the student-centred approach which proved innovative and stimulating (c.f. section 2.2.3.). This can be done through allowing students to enjoy some kind of controlled autonomy from the constraints of teachers' traditional practices (e.g. "my version runs as follows"). For example, we could bring both sides of the trainee-trainer equation into play through giving trainees the opportunity to take part in the selection of the texts to be translated and to carry out some of their translation exercises autonomously (e.g. peer translation and evaluation) with the teacher assuming the role of an observer. Giving learners the freedom of choice would undoubtedly allow them to explore areas of direct relevance to their own interests. The benefit of substituting teacher-focused instruction with a more energetic approach to translation learning is recognised by some translation educators, such as Bowen (1994:178) who points out that trainees appreciate a trainer who shows his interest in them by constantly changing his training methods in accordance with trainees' needs. Bowen adds that this dynamic approach means that translation educators occasionally make concessions to trainees learning styles.
- b- We should create a friendly atmosphere so that we can reduce trainees' anxiety and promote a co-operative environment through sharing the responsibility of the learning process between instructors and trainees. One possible way to do this is through fostering teamwork and allowing learners to participate and voice their opinions as regards their stylistic preferences and suggestions

- c- We should dispel trainees' fear of criticism by allowing them to see alternatives. Kussmaul (1995:51) in this context asserts that when evaluating a student's work, "criticism should never be harsh. We should try to create that atmosphere of sympathetic encouragement which, according to psycholinguistic research, seems to be so conducive to creative thought." Translator trainees should be instructed to rule out the assumption that the teacher's version is the only ideal translation, as this would encourage learners to use their creative faculties. In this context, Noss (1994:157) points out that because more than one version of translation can be acceptable "we want to encourage our students' creativity and, at the same time, teach them the rules of acceptability, according to the norms of the target language, culture and society." It is also important that translation trainers not only discuss trainees' deviations, but also approve learners' creative translation strategies as this would build up their self-awareness and self-confidence which are typical features of successful translating (Kussmaul 1995:53).
- d- One of the most obvious didactic implications that can be drawn from the present experiment is that translation trainees should be encouraged to preserve a critical and evaluative attitude towards their proposed translations as this would enhance their self-awareness and ultimately the quality of their translations.
- e- One possible way of improving the traditional translation classroom is through seminars where a trainee translator is voluntarily assigned the translation of a text which he then hands out to his classmates so that they can read it critically before the seminar session. In the seminar, the chosen trainee justifies his translation strategies against some critical comments raised by his fellow

students. Another interesting form of teamwork aimed at developing translation instruction methods is the workshop format (Conacher 1996) where the overall number of trainees is broken into small groups and each member of the group brings his own translation manuscript. Each group produces a joint translation version, which is based on a comparison of individual translated versions of group members, and discussion within, and occasionally across groups. The primary objective of this practice is encouraging interaction between trainees, promoting text analysis, and experimenting with a variety of problem-solving strategies. Conacher concludes that translation workshops “provide a motivating, challenging and enjoyable approach to learning” as well as introducing trainees “to some of the fascinating issues of translation which convince us as lecturers that it is an art worth passing on, and provides them with some of the skills of revising, editing, collaborating and decision-making that they will require in future life” (ibid.:180).

3- The analysis of the subjects’ protocols and end product revealed the result that they showed a great deal of unfamiliarity with a number of text-types, e.g. technical texts (c.f. examples 32-36). This resulted in encountering many lexico-semantic problems which ultimately reduced the quality of the subjects’ translations (c.f. chapter 6). The subjects’ incompetence (i.e. unfamiliarity with different text-types) can be linked to the lack of defined course curricula to guide translation instructors in Saudi universities who usually select translation material independently without any form of coordination with other members of staff on syllabus design for the translation programme. Texts for translation are selected by instructors in a random fashion, that is, they are not chosen according to a coherent policy, such as grading translation materials according to their range of

subject matter or level of difficulty. Students are exposed to a limited range of short texts, mainly literary and political, depending on the instructor's interest. The instructor usually chooses text segments with no background information which he presents as a language exercise and not "as integral piece of authentic language with real-life functions and target audience" (Fraser 1996a:130). The effect of this irrational approach to text selection is evident in the translation of some of the subjects of the present study (c.f. chapter 6) who failed to observe text-type and genre conventions. Subjects' apparent unfamiliarity with abbreviations and technical terms is another evidence that the subjects were not given in-depth exposure to the most important range of text-types and styles. It is also possible that the poor selection of texts undermines trainee translators' motivation (Jakobsen 1994:146).

With the above observations in mind, it is quite beneficial for both instructors and learners to adopt a set of criteria for the design of a systematic translation curriculum which takes into account exposing learners to a variety of subject matters (e.g. literary, legal, technical, etc) and grading the texts' degree of difficulty according to the translation trainees' progression in the training programme. One interesting set of criteria for the selection of material for translation is found in Sewell and College' survey (1996:152) which is proposed by one of the respondents of the questionnaire as follows:

- 1) Texts are predominantly contemporary;
- 2) Texts are representative of a number of domains, registers, styles;
- 3) Texts are chosen in the light of their suitability as the basis for "authentic" tasks;

- 4) Choice is also based on the capacity of the text to test specific translation skills and to generate discussion about strategy;
 - 5) Consideration is given to level of difficulty;
 - 6) To a lesser extent, attention is paid to the potential of the text to enable translation trainees to improve proficiency in the foreign language;
 - 7) A significant number of texts are selected to relate to one broad theme, generating some notion of coherence;
 - 8) The texts are complemented by other related texts, audio and video tapes used for private study tasks;
 - 9) Material is presented as tasks and texts are produced facsimile;
 - 10) Where appropriate the full text is provided, even if only an extract is to be translated.
- 4- Despite the importance of the use of dictionary in the translation process, this tool has not been given proper attention in translation programmes at Saudi universities. In a small-scale survey aimed at investigating the use of reference material in translation programmes (c.f. appendix 3), which was administered by the present experimenter and distributed among 14 Saudi translator trainees who were chosen randomly, 12 respondents indicated that they received no training in the use of reference material in translation (the full review of this survey is beyond the scope of the present study). The result of this negligence is that the majority of translation trainees tend to use dictionaries inefficiently as evidenced by subjects of the present study (c.f. section 5.6.1.3.). Trainees' most observable shortcomings as regards their use of dictionaries include a) the selection of unsuitable dictionaries (e.g. pocket-size dictionaries), b) over-reliance on the bilingual dictionary as this would "result in an insufficiently critical approach and

a lack of discrimination in the search for situational and connotative as well as referential meaning” (Fraser 1996a:131), c) lack of management of time in their use of the dictionary, i.e. most of the translating task-time is wasted in the slow, inefficient, and lengthy search for unfamiliar words, (d) unwary behaviour towards dictionaries’ limitations and traps, i.e. looking at the dictionary as the final authority. The hasty selection of dictionary equivalents which is usually the result of reading only part of the information offered by the dictionary as well as the failure to test the appropriateness of the chosen dictionary definition against the context of the translation, and (e) unfamiliarity with other types of reference material, such as specialized dictionaries, encyclopedias, parallel texts, and glossaries.

Thus, based on the above observations of the improper use of dictionaries in translation programmes in Saudi universities, the following are some insights aimed at improving learners’ skill in using reference materials.

- a- Because of the importance of the dictionary in the translation process, there should be a special course in the use of reference material within the translation-training syllabus. In this course, learners should be given a detailed review of the available types of reference materials with some information on how they are structured, and how and when to use them. The main objective of this course is to sensitise translator trainees to the potential difficulties involved in the use of reference material and how to deal with them, e.g. the tendency of dictionaries to provide a number of definitions for one ST lexical item.
- b- We should set a criterion for dictionary selection by providing students with a list of the recommended reference material at each stage of the translation programme.

- c- We should train translator trainees in how to analyse and infer the meaning of words from the context as this would supplement their dictionary consultation techniques, particularly in cases where there is an inconsistency between the information given by the reference material and the context which is relevant for the word in question. It is also quite appropriate to teach translation trainees some of the basic concepts of lexicography (e.g. synonymy, hyponymy, polysemy, collocations, connotation, etc.) because the knowledge of such semantic notions would undoubtedly help them to extract the maximum of information from definitions and examples in dictionaries.
- d- Translation trainees should be made aware of dictionaries' limitations and traps. They should be taught to use the dictionary critically as the wealth of information that can be found in the dictionary could turn out to be misleading if not dealt with properly.
- e- Translation instructors should encourage learners to avoid the naïve approach of reading out only part of the information offered by the dictionary (the first variant in the majority of cases) and consider all variants and illustrative examples. Learners should also be instructed to check the suitability of the chosen dictionary equivalent against the translation context.
- f- In addition to bilingual and monolingual dictionaries, we should also encourage trainee translators to use different types of translation aids such as encyclopedias, specialized dictionaries and parallel texts. We need to develop a set of translation exercises which requires the use of different types of reference material (e.g. encyclopedias), consequently moving trainees' focus from using only one type of dictionary.

- g- Because translation trainees spend most of their translation task-time in dictionary searches, they may try using electronic dictionaries particularly those that provide speedy, contemporary, and comprehensive information. It is also advisable to encourage trainees to use other technological aids such as computers, which should become an essential component of translation pedagogy today.
- h- One way of improving translator trainees' use of reference material is through contrasting their translation performance with that of professionals via TAPs. For example, Jaaskelainen's study (1987:88) yielded the result that professional translators were able to use working aids more efficiently than non-professionals who were too dependant on bilingual dictionaries. Professional use of different types of reference materials led them to succeed better in finding good translation variants. Similarly, Fraser (1996b), in her empirical study which contrasted trainees and professionals in their use of dictionaries, found a substantial difference in the way they tolerate and deal with unfamiliar lexical items, as follows:

As teachers, we all know how rapidly students become paralysed when faced with an unfamiliar word or phrase and rely largely- perhaps excessively- on bilingual (source- to target-language) dictionaries. This is in marked contrast to the behaviour of the professional translators in my studies who, instead of using dictionaries to establish meaning, used them to *refine* the meaning of source-language terms and/or to stimulate the search for target-language equivalents. This involved a high level of tolerance of ambiguity and uncertainty, and these translators were strikingly willing to let meaning emerge from the whole text rather than needing to ascertain meaning and find a translation before moving on. Moreover, it was the development of the text, rather than the

limited dictionary entry that prompted the most appropriate rendering. (Fraser 1996b:247)

The main didactic implications that can be drawn from Jaaskelainen and Fraser's comparison of learners and professionals' use of reference materials are: a) translator trainees should use different types of reference material as this would enhance the quality of their translation, and b) learners should not hold up the process of translation when they are faced with unfamiliar lexical items, but rather show their self-confidence by tolerating ambiguity and allowing the meaning to emerge from the whole text.

5- Lack of translating-skills instruction, i.e. the best techniques to carry out a translation task. This includes preparatory and revising procedures as well as text analysis and problem-solving strategies. In the present experiment for example, the inadequate knowledge of translation skills is reflected by the fact that the majority of subjects approached their translation task in a haphazard way: They started translating immediately without reading through the ST, showed little sign of editing, concentrated on lexical features and ignored textual considerations, displayed a lack of concentration and a faulty confidence, used reference material inefficiently, and performed a large number of deficient problem-solving strategies, apparently the main factors which significantly reduced the quality of their translations.

Trainees' deficient translation skills highlight the importance of suggesting a number of insightful and practical procedures which can be used by trainees to enhance their translation competence:

a- Based on the findings of the present study (c.f. section 6.3), there seems to be a close connection between generating preparatory activities, such as reading and

analysing the entire ST before the translation takes place, and a higher translation quality. This is not surprising because reading through the entire ST before plunging into translation would give the translator trainee a background picture of the whole text particularly the potential problematic units, “thus producing a better translation in less time” (Mitchell 1996:89). On the other hand, failing to establish the contents of the ST in advance through prior reading may lead the trainee to consider individual units and to blur the continuity of the text by interrupting the smooth translation processing with a lengthy search for unfamiliar lexical items, consequently producing a disjointed TT, as is the case with the majority of subjects in the present experiment. Recognising the benefit of effective reading as a distinct phase of the translation process in translation instruction, Mitchell (*ibid.*:100) points out that this skill “gives one a blueprint of the text from which to work with confidence” and ease. Mitchell adds that ignoring the preparatory reading would lead translator trainees to “waste time in a hit-and-miss fashion, attempting to piece together the jigsaw puzzle without looking at the picture on the lid”, while on the contrary “visual thinking will give them the confidence to generate a first draft which is coherent and alive” (*ibid.*:101). Yet, despite the vital role played by preliminary reading in approaching a translation task, this skill “is usually glossed over in translation studies” (*ibid.*:89) and overlooked in traditional translation training programmes. In a survey of the features of translation practices in twenty-one institutions in the UK (1996:146), Sewell and College came to the conclusion that the act of prior reading of the ST should be introduced as “a necessary classroom pre-requisite for producing an acceptable translation.”

Thus, realizing the value of effective reading leads us to believe that one way to promote translation skills is through instructing trainee translators to devote considerable attention to preparatory activities, as a distinct phase before they translate. Efforts should also be made to warn would-be translators against the time-consuming misdirection of their attention during the reading process towards the words, not the content, thus failing “to follow the thread of the argument or narrative” (Mitchell 1996:90). It is also advisable to train translation learners to practice some effective reading techniques, such as the ambiguity-tolerance strategy (see Fraser 1996b:247), i.e. allowing the meaning of individual words to emerge from the whole text (the ambiguity-tolerance strategy was hardly observable in the protocols of the subjects of the present study who showed a frustrating and time-wasting tendency to establish the meaning of every unfamiliar word through instant dictionary search). Ambiguity-tolerance seems to be a typical feature of professional translators, e.g. in Fraser’s study (1996a:129) where they showed a tendency not to falter at every unclear lexical item, a clear sign of confidence. When they encountered problematic lexical items they commented: “you can get thrown by terms which in the whole context then sort themselves out” and “not knowing a word wouldn’t stop me, because things actually begin to work themselves out” and “the text resolves most things itself.” Mitchell (1996:90), therefore, asserts that “we need not decypher every word in order to reach the meaning, on the contrary, we rely on the meaning to tell us what the next words will be.” Likewise, Smith (1978:118) contends that “recognition of individual words is not necessary for comprehension, and conversely comprehension is often necessary if you want to identify individual words.” One interesting exercise to

wean students off needing to know the meaning of every lexical item before progressing with translation would be to ask trainees to summarize a ST as a prefatory activity “to ultimate translation of it” (Fraser 1996b:248).

- b- The analysis of the verbalisations in the present study yielded the result that the subjects’ lack of evaluative attitude was a determining factor in the worsening of the end translation (c.f. chapter 6). The majority of subjects showed little sign of editing which can be explained by the fact that they took their understanding and proposed renditions of problematic ST units for granted, as well as their apparent lack of concentration. Only two subjects (Zaid and Hameed) exhibited some evaluative behaviour, i.e. proofreading of the end product, which seemed to enhance the quality of translation. The didactic implication that can be drawn from this result is that the skill of editing plays a major role in successful translation; accordingly it should be given proper attention in translation pedagogy. There should be an introductory revision course aimed at improving trainees’ editing skills, such as drafting, outright corrections, and proof reading of the final product. Learners should be encouraged to check the plausibility of their translation before submission by means of conducting “fidelity and acceptability tests” for the whole text “as good results at the single translation unit level do not ensure good results at the text level” (Gile 1994:110). A survey was administered by Mossop (1992) to investigate the goals and practices of revision courses for translator trainees. The respondents of the questionnaire were teachers of revision courses at Canadian translation schools. The main finding of the study was that learners “make *too many* changes (unnecessary revisions) and the *wrong kind* of changes (focusing on tiny nuances or small points of usage and ignoring macrotextual features)” (ibid.:81). The survey also

revealed a number of goals which can be accomplished by a revision course: (1) improving critical sense; (2) understanding translation better; (3) improving translation ability; (4) improving ability to manipulate target language; (5) understanding what a reviser does (*ibid.*). Integrating the results of the study and his teaching experience, Mossop (*ibid.*:82) came to the conclusion that a revision course could be organized around one or more of three components: (A) professional preparation for work as a translator (preparation to be revised, to self-revise and to inter-revise); (B) professional preparation for target-language editing work (whether in translation, journalism, technical writing, speech-writing, and so forth); (C) the theory of re-writing (studying revision as opposed to doing it). For each orientation, Mossop suggests a number of goals and exercises. In orientation (A) for example, one objective is to ask trainees to achieve the mental switch from a 'retranslating' to a 'revising' frame of mind, i.e. by assuming the role of an editor. Other goals for orientation (A) include learning to justify changes as an important preparation for the workplace. One recommended exercise is to give students a draft translation with handwritten revisions and ask them to say whether each revised expression needed revising, and if so why, and whether in each case the revised version solves the problem (*ibid.*:85). Trainees should also acquire a procedure for self-revision; it "should not be just some vague 'going over'", but rather solving "certain problems inherent in the drafting phase of translation" (*ibid.*:84). With regard to orientation (B), Mossop proposes three goals: (1) Learn to see the text from the final reader's viewpoint; (2) Learn to focus on larger text structures, i.e. trainees should avoid their common practice of focusing on smaller units (words and phrases) and should "learn to attend to matters of inter-sentence cohesion,

coherence of argument, conventions of the genre, and consistency in the formality, technicality and emotional tone of the language” (ibid.:86); and (3) Begin to develop conscious personal practices concerning matters of correct usage, i.e. learners “must learn to use linguistic ‘authorities’ in a manner appropriate to the target-language culture, and to appeal to authorities in a consistent way” (ibid.). Orientation (C) includes two goals: (1) Understand why self-revision is a necessary step in the translation process; and (2) understand the institutional role and normative power of re-writers. One recommended exercise is to ask learners to “compare the first published translation of a literary work with revised versions thereof” (ibid.:88). Here it should be noted that although Mossop’s revision model looks sophisticated for inexperienced translator trainees (e.g. the subjects of the present study), as it is aimed at training professional editors, it nevertheless can work as a general guideline for designing a less complex editing course to fit into the translation curriculum, with the primary aim of sharpening trainees’ self-awareness of their weaknesses as well as fostering their self-confidence by promoting critical and evaluative attitudes.

c- A major finding of the present study (c.f. chapter 6) is subjects’ context insensitivity, i.e. concentrating on individual and lexical features and ignoring textual considerations. This deviant attitude resulted in producing many inappropriate word-for-word renditions, with the consequence of reducing the overall translation quality. Here it should be mentioned that context-insensitivity could be a direct result of the inefficient traditional translation programmes in the majority of Saudi universities which encourage trainee

translators to have comprehension goals in mind through concentrating on lexical-level features.

Thus, to find a remedy for this irrational attitude we need to draw learners' attention to the vital role of context in the activation of the meaning of words. This can be done by helping and encouraging learners to shift the focus from lexical choice to a higher level of textual consideration in their translation processing, consequently avoiding the faulty perception of translation as a word-for-word correspondence. Fraser (1996b: 244-46) in this context calls for emphasis on text-level features in translator training, and for academic translation to be contextualised. Learners should be aware of the polysemous nature of words because "words take on meaning in texts (a) by their meaning potential and (b) by the context which activates, determines and limits their meaning potential" (Kusmaul 1995:22). Trainees should also be instructed that meaning inferred from context should have priority over meaning gained from the dictionary (ibid.: 24). As mentioned earlier, it is quite appropriate to teach trainee translators how to deduce the meaning of words from contextual clues so as to add to the information gained from dictionaries because searching for the meaning of words in reference material is only part of the truth. One of the recommended techniques for analysing meaning in context, which would move translation trainees beyond word-for-word translation, is examining the concept of units of meaning through studying the notion and operation of *collocation* in lexicography. Lack of understanding of this phenomenon contributed to the increase in error density in the present study, i.e. the majority of subjects were over-literal, taking account of lexical accuracy to the detriment of ST textual coherence (c.f. chapter 6).

d- In the traditional translation pedagogy practiced in Saudi universities, translation trainees are rarely taught how to deal with potential translation problems, e.g. lexical problems. This is evident in the present study which yielded the result that subjects used problem-solving strategies in a haphazard way, thus failing in many instances to provide solutions for these difficulties (c.f. chapter 5). In my opinion, one major reason for translation instructors' failure to teach problem-solving strategies is their unacquaintedness with learners' potential translation problems in the first place. Translation educators need to develop a method by which they can detect translation difficulties which learners encounter during their performance of translation tasks. Efforts should also be directed towards identifying and promoting successful problem-solving strategies.

Here, I would like to propose an approach which translation instructors can employ for diagnosing trainees' translational problems and strategies. This method is based on the following four components:

- 1) Using the introspective technique *TAPs*. Students are asked to translate, individually or in small groups, a text with various potential difficulties which would prompt problem-solving strategies; and to think aloud their translation processing for tape-recording. Learners' protocols are transcribed and then analysed by the teacher.
- 2) Using problem-reporting technique. When performing a translation task (either at home or in class), learners are asked to attach to their translation manuscripts a written report describing the problems which they encountered while doing the translation.

- 3) Using class discussions' input and written feedback schemes (e.g. Dollerup feedback model 1994:128) to assess the strengths and weaknesses of each learner.
- 4) Contrasting trainees' translation performance with that of the professional translators.

After the identification of learners' translational problems and strategies, translation instructors are required to take the following points into considerations:

- 1) They should sensitise translation trainees to the potential problems;
- 2) They should train translation trainees in how to deal with these problems.

Instructors can do this by a) reinforcing trainees' observed successful problem-solving strategies and avoiding the less effective ones, b) introspecting on their translation experience and passing on "hints, tips, and tricks to their students" (Király 1995:3), c) introducing professional translators' problem-solving strategies. According to Fraser (1996b:250), "the strategies used by professionals are, almost by definition, those which have proved effective in practical use and it is, therefore, only logical to seek to gain access to them and to attempt to apply them to the teaching of translation", and d) recommending some practical translation works which present translation as a problem-solving discipline (e.g. *Training the Translator* (1995) by Paul Kussmaul and *Thinking Translation* (1992) by Sandor Hervey and Ian Higgins).

- 6- Lack of clear standards against which translator trainees' progress could be measured. There is no systematic evaluation feedback that illustrates properly the strengths and weaknesses of learners. Translation instructors usually employ a noncommunicative evaluation scheme which is dependent on lexical-based considerations with the view that students are learners of a foreign language rather

than translator trainees. As already noted, it is also the case that trainees' translations are assessed against the instructors' *model version*. This traditional teacher-centred correction seems to contribute to the impairment of learners' creativity and self-awareness because translation trainees usually try to *play safe* (Sewell and College 1996:138) by not challenging the instructors' *ideal translation* so as to ensure getting good marks. Trainees' translation competence is often measured in one final term exam which is based on previously translated passages, a practice which does not truly measure learners' progress in the translation programme but rather their memories. It is also inevitable that this type of testing will encourage passive memorization of seen texts and would discourage creativity. In the present experiment, for example, the negative effect of this traditional evaluation method is evident in the translation performance of the majority of subjects, namely a) lack of self-awareness, b) lack of creativity and evaluative attitude, and c) lack of communicative approach (i.e. faulty word-for-word translation).

Thus, in order to avoid these types of evaluation practices in translation pedagogy, the following points should be taken into consideration:

- a) Instructors should adopt a communicative approach in their evaluation of learners' translation. They need to avoid focusing on lexical-based error assessment and should judge learners' translation deficiencies against "the text as a whole and with regard to the translation assignment and the receptor of the translation" (Kusmaul 1995:128). They should also see trainees as would-be translators rather than foreign language learners.
- b) For the construction of a valid translation test, translation educators should provide clear and brief instructions on the translation assignment as well as

background information about the STs. They should also “avoid assessment of students’ memories rather than their achievements” (Farahzad (1992:276) by using authentic and unseen texts (not previously translated in class work) which belong to the text-types that learners are familiar with. Regarding the scoring of the test, Farahzad (ibid.) proposes two features which must be checked by examiners for each translation unit. They are: (1) *Accuracy*: the examiner should see whether the translation conveys the information in the source text precisely, without addition or deletion, and whether it is natural in forms of diction, and (2) *Appropriateness*: the examiner should see whether the sentences sound fluent and native and are correct in terms of structure (and natural in terms of grammatical forms).

- c) Translation educators can reduce the rigidity and passivity of the traditional teacher-centred evaluation approach by occasionally adopting some of the constructive and stimulating features of student-focus evaluation, such as sharing the responsibility of correction with learners. Giving away some of teachers’ traditional responsibilities to students is justified on the grounds that “the gains in motivation and learning are greater than the losses in authority and control” (Jakobsen 1994:148). The benefit of this practice is stressed by Nunan (1984, reported in Sainz 1994:140) who points out that “an important supplement to teacher assessment, self-assessment provides one of the most effective means of developing both critical self-awareness of what it is to be a learner, and skills in learning how to learn.” This act of role sharing will make trainees look at the correction process as a way of learning rather than a source of anxiety and punishment. One inspiring *student-focus correction model* is that of Sainz (1994) which comprises various stages: (1) *development stage*:

understand and anticipate trainees' needs so as to respond to these needs. Trainees' translations are assessed first by the teacher in terms of accuracy and appropriateness, depending on the instructor's aim for that particular translation text. The teacher uses a *non-aggressive* way of giving students feedback on their mistakes by only underlining the mistranslated words, as opposed to the "disruptive, frustrating and stressful" traditional procedure of re-writing the correct version on the students' manuscript; (2) *implementation stage*: teachers hand in the following Correction Chart to be filled in by the student:

Correction Chart (Sainz 1994:139)

Text file no.:

Student's name:

Date:

Mistakes	Possible correction	Source	Type of mistake

Students write the underlined translation errors in the *Mistakes* column. Under *Possible Correction*, students try to propose an "error-free" version. If they are unable to do this on their own, they may resort to peer correction by consulting their classmates. If this proves unhelpful, students may resort to reference materials. If there is still no adequate answer, they may consult their teacher. Under *Source*, students enter the source of the answer for their corrections (i.e. Myself, Peer, Reference Source, or Teacher). Students finally try to classify the errors they are making in the *Type of Mistake*'s column; (3) *Monitoring Stage*: teachers monitor the process of filling in the *Correction Chart* by the students so as to help them out in case they needed any assistance and to make necessary

adjustments; (4) *Integration Stage*: teachers analyse the feedback received from the students so as to integrate the necessary remedial or reinforcement work into class work; and (5) *Self-Monitoring Stage*: students monitor their own achievement in various translations during the course of the year so as to identify their weaknesses and ultimately work to eliminate them.

Another stimulating student-based evaluation is through encouraging learners to monitor their performance by means of compiling a *dossier assignment* (Ulrych 1996) of their previously translated texts along with commentaries on their research methods and decision-making processes.

- d) Class discussion of corrected translation assignments is an important feedback on trainees' strengths and weaknesses. Teachers should seek students' participation in the discussion through creating a sympathetic atmosphere in relation to learners' deviations, consequently germinating self-confidence and self-awareness. Instructors are advised against identifying "students who have committed a specific error" (Dollerup 1994:129) so as to avoid learners' embarrassment. Discussion of corrections should be constructive and should focus on both adequate and inadequate renditions with the objectives of reinforcing the good points and improving the weak ones. It is also important "that students are introduced to a multiplicity of valid solutions in translation work" (ibid.).
- e) Translation educators need to design and employ a comprehensive and systematic assessment feedback model so as to facilitate their correction work of learners' translations. One promising assessment form is that of Dollerup (1994:128, shown on page 285) which comprises a total of 42 problem areas, assessed on a five-scale deferential.

(Source: Dollerup, 1994:128)

No marks =

The feedback form

No problem for you, OR

Not checked in this translation

- +

1. TEXT

omission..... [] [] [] [] []
addition..... [] [] [] [] []
insufficiently checked..... [] [] [] [] []

(Tense. Numbers. Other)

2. SPELLING

capital letters..... [] [] [] [] []
words [] [] [] [] []
compounds [] [] [] [] []
split words [] [] [] [] []

3. PUNCTUATION

relative clauses [] [] [] [] []
object clauses [] [] [] [] []
other [] [] [] [] []

(Longish discourse. Adverbials. Other)

4. WORDS/WORD KNOWLEDGE

elementary..... [] [] [] [] []
rare..... [] [] [] [] []
idioms and phrases..... [] [] [] [] []
constructs..... [] [] [] [] []
plural vs singular forms..... [] [] [] [] []
cliques..... [] [] [] [] []
false friends..... [] [] [] [] []
contaminations..... [] [] [] [] []
equivalents..... [] [] [] [] []
irregular verbs..... [] [] [] [] []
change of word class..... [] [] [] [] []
gender..... [] [] [] [] []

5. SYNTAX/GRAMMAR

concord... (subject – verb)..... [] [] [] [] []
concord (other)..... [] [] [] [] []
genitive..... [] [] [] [] []
article..... [] [] [] [] []
preposition..... [] [] [] [] []
adverb, form..... [] [] [] [] []
adverb, position..... [] [] [] [] []
prop-word..... [] [] [] [] []
tense..... [] [] [] [] []
modal verbs..... [] [] [] [] []
parallelisms..... [] [] [] [] []
relations..... [] [] [] [] []

(Indefinite. Definite. Form)

(Parataxis. Hypotaxis)

6. EXPRESSION

collocations..... [] [] [] [] []
calquing..... [] [] [] [] []
construction of sentence..... [] [] [] [] []
idiomatic usage..... [] [] [] [] []
style..... [] [] [] [] []
precision..... [] [] [] [] []
word order [] [] [] [] []

7. OTHER COMMENTS

Dollerup points out that we should differentiate between beginners and advanced learners in our employment of the evaluation form. The top differentials which cover formal points are emphasised with beginners, marking only errors. In the advanced classes, the emphasis is on the strengths and stylistic points at the bottom. The feedback on these evaluation sheets is given to students so that “they can identify their own weak spots and do something about them” (ibid.:130) in subsequent translation tasks.

7- Translation trainees often exhibit inadequate foreign language competence, particularly in relation to specialized, cross-cultural and encyclopedic knowledge. This lack of knowledge is evident in the present study, as manifested by the subjects’ unfamiliarity with a large number of lexical items (e.g. cultural, technical, abbreviated and collocated words), and their over-reliance on the dictionary. Apparently, trainees’ incompetence in the foreign language is largely due to the fact that they are trained to translate simple texts as a language exercise, that is, they are not required to translate a wide range of text types.

Thus, to enhance learners’ foreign language competence, the instructor should take the following points into account.

1. To ensure adequate command of the foreign language, learners need to be exposed to a wide range of subject areas, e.g. political, social, cultural, commercial, scientific, etc.
2. Teachers should encourage translator trainees to write their own glossary of new words to ensure the registration of the information gained in translation tasks. In this context, Tagnin (1996:167) asserts that “students should be encouraged to prepare their own glossaries, drawing up lists of technical and problematic words and their translations for each one of the texts they work on.”

Tagnin also emphasises the benefit of collaborative learning of new information by maintaining that “a class composed of students with different backgrounds will enable many of them to function as informants in areas they are well versed in. This, together with sharing the information all will be collecting, will bring out the richness of their collective work” (ibid.:168). Another source for increasing learners’ command of the foreign language is *lexical brainstorming* (Fraser 1996b: 246) exercises “which provide valuable preparation for recognising and translating accurately, especially when more specialized knowledge is involved” (ibid.).

3. Translation educators are advised to integrate in the translation curriculum, a terminology course, since “the nature of texts to be translated has over the years become more technical, requiring greater specialized know-how or terminological research”(Sager 1992:108).

8. Conclusion

8.1. Summary

This final chapter is dedicated to a brief summary of the main findings, implications and recommendations of the present study, as well as to providing some suggestions as regards further research of the process of translation via the employment of TAPs technique.

8.1.1 Aim of the study

The primary aim of the present study (stated in chapter 1) has been to identify some of the lexico-semantic problems and problem-solving strategies of translation trainees. An additional objective has been the identification of subjects' strengths and weaknesses through investigating their global behaviour during their translation task performance as well as evaluating their translation end product. To achieve these goals, the investigator employed the introspective technique *TAPs* which proved fruitful and reliable as it yielded a wealth of verbal reports for empirical analysis, as well as the *Error Analysis* method which also facilitated the assessment of the subjects' end product. The analysis of data was conducted with a view to enhancing the quality of current translation pedagogy, by making translation trainees aware of potential translation difficulties and problem-solving strategies and by fostering efficient behaviours and creative attitudes towards translation tasks performance.

8.1.2. Literature review

The aim of chapter was twofold: a) to investigate the status of traditional translation studies and to argue for an empirically-based investigation of the translation process, and b) to examine the status of translation pedagogy.

It was found that most of the literature on translation has been theoretically oriented, concentrating on the final product and ignoring the process of translation. Traditional translation models were therefore criticised for their speculative nature and for failing to account for the reality of mental processes of translation, thus ignoring the actual agent of the translation, i.e. the translator. Another source of criticism against traditional theories of translation is the fact that they have been tailored to account for professional translation, thus failing to cater for the needs of translation pedagogy.

The inadequacy of traditional theories was seen as a justification for adopting an empirically-based investigation of the translation process which is dependent on the introspective technique, TAPs (i.e. asking the translator to verbalise his thought during the process of translation).

Two questions were raised to ensure the validity and success of TAPs for the present experiment, namely 1) *Which mental processes are accessible to verbal reports?* and 2) *Does instruction to verbalise change the process of thinking in its very nature?* In answer to these two questions, I concluded that only controlled processes, which are in the translator's short-term memory, are accessible to verbalisation and that these conscious processes are often prompted by translation problems. As regards question 2, it was found that there was no detectable effect of TAPs on the quality and speed of translation. TAPs, therefore, were seen as a promising and suitable tool for externalising subjects' internal structure of the translation process, particularly translation problems and problem-solving strategies.

As regards the status of translation pedagogy, the investigation in the relevant literature indicated *a pedagogical gap* in translation training programmes. This *pedagogical gap* was linked to the traditional view of translation training; i.e. translation is perceived as a language exercise for improving learners' L2 competence. Traditional translation instruction was criticised for failing to account for the communicative aspect of translation and for ignoring the role of trainees in the learning process. In response to the questionable value of traditional translation training, a number of creative contributions in translation pedagogy have recently started to evolve with the primary objective of bridging *the pedagogical gap* in translation skill instruction.

8.1.3. Experiment

The purpose of chapter 3 was to review the setting of the present experiment. I first presented the criteria for the selection of subjects (i.e. sufficient linguistic ability and willingness to participate in the experiment) with the objective of ensuring their suitability for the success of the experiment. The subjects, although in their final year of study, were classified as non-professional translators due to the fact that they were not exposed to professional training in translation. The choice of non-professional subjects to take part in the present experiment was regarded as successful and suitable mainly because their non-professionality led them to encounter many problems, consequently increasing the amount of data collected.

By the same token, to ensure the validity of the chosen STs for the present experiment, the guidelines which the experimenter followed in the process of texts selection were discussed, namely a) STs must include sufficient problematic units, b)

STs' difficulty must be of a surmountable nature, and c) STs should cover different types of potential lexico-semantic problems.

This chapter also included a detailed description of where and how the experiment was conducted. The experiment proved a success, as it evidently substantiated the premise that subjects' thinking aloud would have minimal or no effect on their translation performance. At the end of the chapter, a brief account of the process of data collection was given, together with the analytical categories (i.e. translation problems, problem-solving strategies, and global behaviour).

8.1.4. Lexico-semantic problems

In chapter 3, the aim was to investigate lexico-semantic problems which are typical of translation trainees by means of analysing the present subjects' verbalisations. Examining learners' translational difficulties was justified on the grounds that translational problems were the most important feature of their translation processing. Identifying students' translational problems was also seen as serving a didactic goal, i.e. raising trainee translators' self-awareness and problem-sensitivity.

As a fitting start to the chapter, I endeavoured to define the notion of *translation problem* which was found to emerge when the automated processing was interrupted by the translator's realisation of his inability to transfer a given ST item into the TL. To facilitate a valid account of subjects' certified problems, I applied a problem detector technique which was based on Krings' *problem indicator model* (1986). The successful identification of translation problems took place in three separate stages of the translation process: a) the preparatory stage, b) the writing stage, and c) the editing stage.

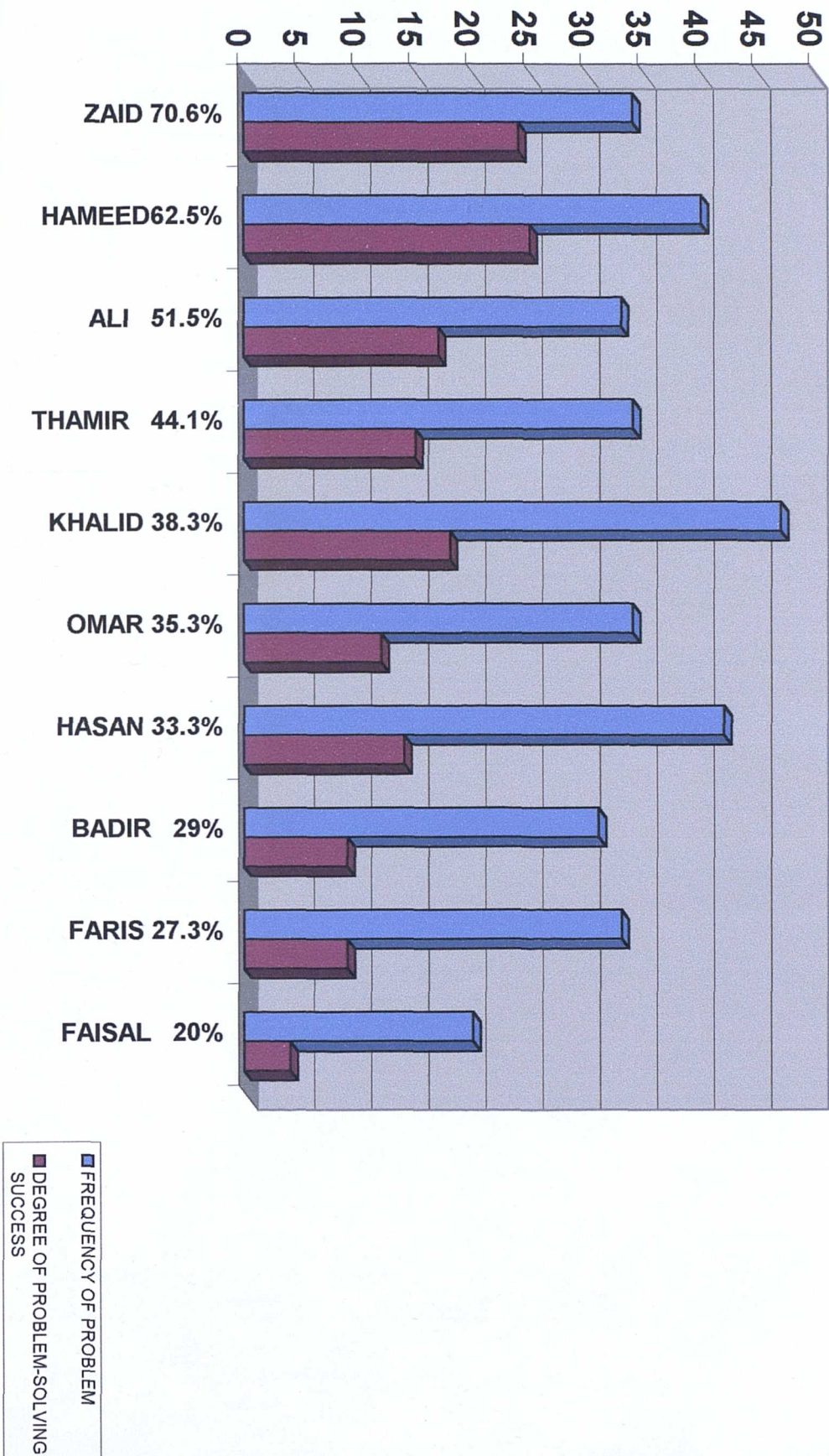
The analysis of subjects' protocols yielded the following results:

- 1) Identifying and dealing with problematic lexical items constituted the largest part of subjects' protocols.
- 2) Translational problems differed dramatically in terms of degree of difficulty. They were found to fall into three sections: a) *easily-solved translation problems*: those problems whose solution required the employment of only one problem-solving strategy, b) *hard-to-solve translation problems*: those problems whose solution depended on the application of two or more problem-solving strategies, and c) *insoluble translation problems*: those problems which the subjects failed to solve even after the use of problem-solving strategies.
- 3) Translation problems were found to fall into two main categories: a) *comprehension problems*: those lexical items which proved difficult to understand, and b) *production problems*: those lexical items which the subjects found difficult to render into the TL (the result of unsolved comprehension problems).
- 4) The main types of lexico-semantic items that posed problems to the subjects of the present experiment included (a) *cultural items*, (b) *collocational items*, (c) *abbreviated items*, (d) *technical items*, and (e) *neutral items*.
- 5) The quantitative analysis (c.f. figure 8.1, page 294) of subjects' protocols revealed considerable individual variations in the number of certified problems, ranging from 20 to 47. It also revealed an interesting result which ran counter to my earlier expectation: that is, the number of problems did not correlate with the level of competence, as manifested by the fact that some competent subjects encountered a higher volume of translational problems than the less competent ones. An explanation for this unexpected phenomenon was found in subjects' verbalisations, namely that the more competent subjects encountered more

problematic lexical items because they were more sensitised to translation problems than the less competent informants who showed a marked problem-insensitivity.

- 6) The quantitative analysis of the data corpus revealed some degree of correlation between the level of translation competence and the degree of successfulness in problem solving.
- 7) The subjects were generally irritated by the presence of problematic lexical items and seemed to falter whenever a difficult translation unit was identified.

FIGURE 8.1 : SUBJECTS' FREQUENCY OF TRANSLATION PROBLEMS AND DEGREE OF PROBLEM-SOLVING SUCCESS



8.1.5. Problem-solving strategies

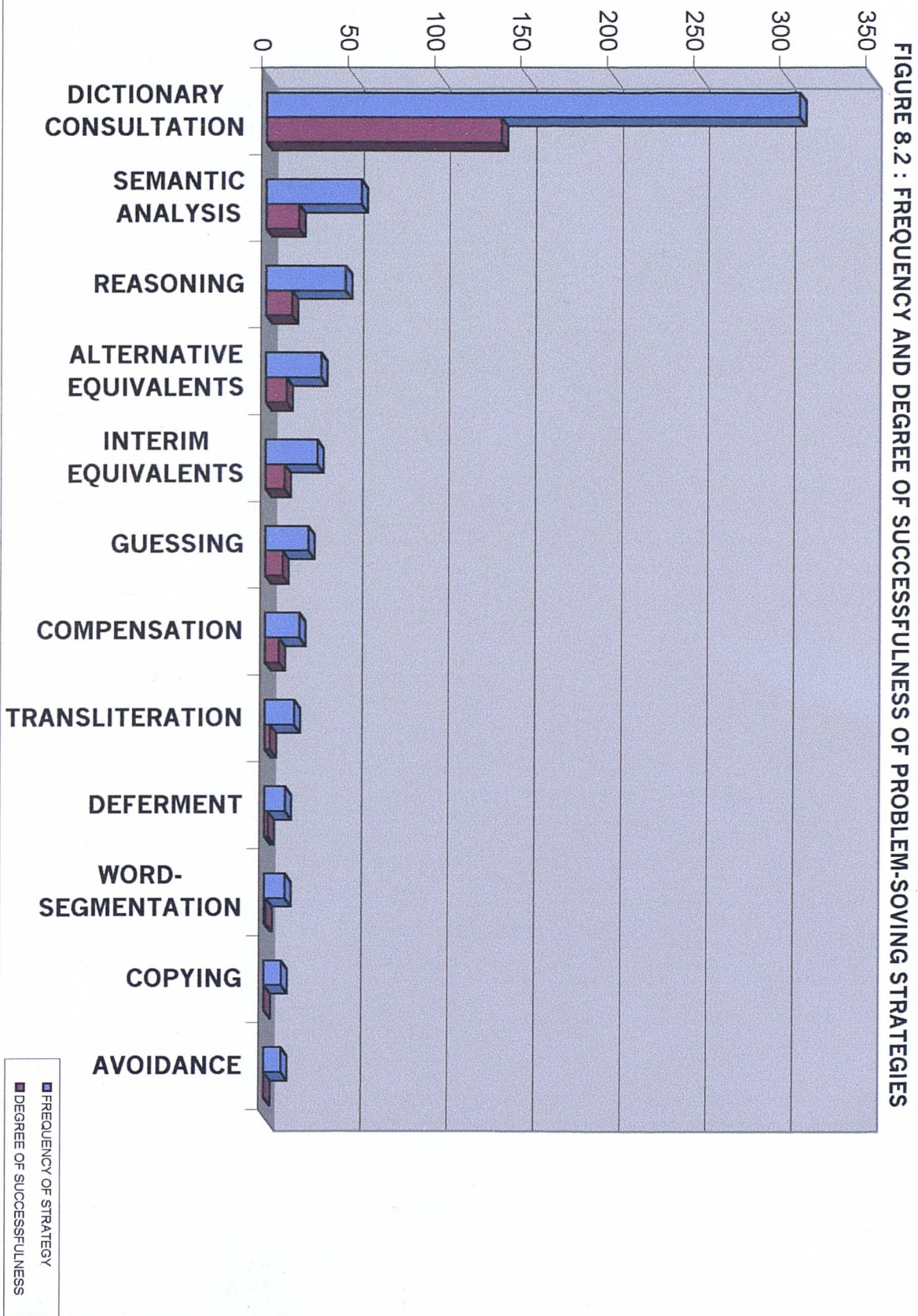
The purpose of chapter 5 was to identify and examine the problem-solving strategies which the subjects of the study employed to deal with translation difficulties. Prior to the definition of the notion of *translation strategy*, I drew a distinction between strategic and non-strategic processing, as contained in subjects' verbalisations. Strategic processes were those conscious activities aimed at solving translation problems, whereas non-strategic processes were those automated operations (inherently non-problematic processes) directed towards completing the translation task. As regards the concept of *translation strategy*, it was defined as *a conscious plan which the translator employs to solve a translation problem*. This definition was based on three criteria: (a) goal-orientedness, (b) problem-orientedness, and (c) consciousness-orientedness.

Problem-solving strategies were successfully identified and counted by the same *problem indicator* model, which was applied by the experimenter to detect subjects' translational difficulties, mainly because translation strategies were used only when subjects encountered a problematic translation unit. The analysis of subjects' protocols showed a number of strategy elements which occurred between the identification of a translation problem and the realisation of its solubility or insolubility. These strategy steps were (a) *recognising a translation problem*, (b) *verbalising a translation problem*, (c) *searching for a solution to a translation problem*, (d) *preliminary solution to a translation problem*, (e) *optimal solution to a translational problem*, (f) *realisation of the insolubility of a translation problem*, and (g) *evaluation of a solution to a translational problem*. The analysis of the data corpus also revealed that while the majority of translation problems were dealt with by one problem-solving strategy, some translation difficulties were addressed by a

variety of problem-solving strategies. Another major observation was that despite their vital role in enhancing the quality of translation, not all strategies led to successful solutions to translation problems (the success rate was only 37.5%)

Twelve types of problem-solving strategies, which differed in their degree of frequency and successfulness, were observed in subjects' data corpus (c.f. figure 8.2, page 297). These were:

1- *The strategy of dictionary consultation*: This was by far the most frequent problem-solving strategy, and constituted 53.5% of the total number of strategy occurrences. Additionally, dictionary consultation proved to be the most successful problem-solving strategy, making up 62.7% of the total number of successful strategy occurrences. Subjects used only two types of reference materials, bilingual and monolingual dictionaries. As regards the primary source of reference, the bilingual dictionary was used more frequently than the monolingual dictionary (63.8% as opposed to 36.2%), and this was seen as a typical feature of non-professional translators. Moreover, the bilingual dictionary accounted for most of the successful dictionary consultations (= 89, i.e.65.4% of the total number of successful dictionary use), seemingly due to the bilingual dictionary's higher volume of frequency as well as to some subjects' apparent incompetence in the foreign language, rather than the inadequacy of the monolingual dictionary. The investigation of subjects' use of reference materials also revealed an unexpected result: the most competent subject (i.e. Zaid) was the most frequent dictionary user (14.2%) despite his superior linguistic ability to the rest of the group. Judging from his protocols, this was found to be the result of his cautious attitude towards translation problems, which led him to use bilingual and monolingual dictionaries complementarily for the sake of assurance.



As regards the purposes of dictionary consultation, the analysis of subjects' verbalisations revealed five major types, as follows:

- a) Searching for the meaning of a totally unfamiliar lexical item.
- b) Ensuring the suitability of the meaning of a lexical item whose meaning is known to the subject but with some degree of uncertainty.
- c) Using the dictionary as a mnemonic aid, in cases where subjects seemed to suffer from a momentary memory malfunction.
- d) Searching for contextual clues in illustrative examples.
- e) Using the dictionary for the purpose of editing, e.g. in dealing with tentative translations which were realised by the subject to be inappropriate.

Additionally, the results reported in this chapter showed some correlation between the efficient use of dictionaries and the quality of translation. Inefficient use of dictionaries included:

- a) Readily accepting unsuitable dictionary information without checking its contextual appropriateness.
- b) Failing to choose the appropriate TT equivalent despite its availability in the dictionary.
- c) Failing to understand all or parts of the definitions offered by the monolingual dictionary, due to some deficiency in the foreign language competence.
- d) Reading only part of the information offered by the dictionary.
- e) Searching for the meaning of an unfamiliar lexical item under a wrong entry.
- f) The redundant and slow use of the dictionary.

With regard to subjects' attitude towards dictionaries, the analysis revealed different types of views. Some subjects expressed their dissatisfaction with the inadequacy of some dictionary types. Apparently, this was a direct response to a

passing unsuccessful experience, rather than an established conviction. Subjects' low opinion of some dictionaries was also found to be connected with their unawareness of dictionaries' limitations. Some of the unfavourable remarks towards some reference material were found to be baseless mainly because the unsuccessfulness of the dictionary search was the result of the subject' misuse of the dictionary rather than the unavailability of the information. In contrast, some subjects voiced a favourable opinion towards reference materials, in cases where the dictionary proved helpful. With regard to the information provided by the dictionary, the majority of subjects looked at the dictionary as the final authority and rarely questioned the information it offered. Only in a few instances did some subjects manifest some cautiousness and critical attitude towards the information offered by the dictionary.

- 2- *The strategy of semantic analysis*: This was the second most frequent problem-solving strategy (9.5% of the total number of strategies). The subjects employed this strategy with the objective of clarifying the meaning of ambiguous words by means of paraphrasing.
- 3- *The strategy of guessing*: This strategy refers to the random proposition of a TT equivalent. Subjects usually resorted to this strategy when other problem-solving strategies proved inadequate.
- 4- *The strategy of providing alternative equivalents*: This strategy refers to the instances when the subject provides two (or more) TT equivalents for one problematic item. The analysis revealed that this strategy was employed only in two cases: (a) when the subjects thought that two translation variants were equally appropriate, and (b) when a TT equivalent was initially proposed with some

degree of uncertainty as regards its appropriateness, in which case the subjects added another variant to raise the chance of correctness of the translation.

- 5- *The strategy of inferencing and reasoning*: This strategy involves deducing the meaning of a problematic lexical item by drawing on textual and extra-textual knowledge.
- 6- *The strategy of providing an interim equivalent*: This strategy was employed by the subjects of the study when they were faced with a problematic lexical item for which they had no immediate translation, in which case they proposed a tentative equivalent which they intended to modify or confirm at a later stage of the translation process. This strategy was seen as a suitable timesaving activity, which allowed subjects to proceed with their translation smoothly.
- 7- *The strategy of compensation*: This strategy refers to subjects' addition of information in their translation with the aim of a) compensating for any potential loss of information or (b) clarifying a potentially ambiguous lexical item.
- 8- *The strategy of copying*: This strategy involves the copying of a problematic ST unit into the TT in its original alphabetical form. The analysis revealed that this strategy was used only as a last resort in cases when other problem-solving strategies proved useless. Although this strategy was employed in 17 problematic cases, it failed to generate any solution to a problematic item.
- 9- *The strategy of transliteration*: This strategy refers to instances when subjects took over a problematic unit from the ST into the TT by way of transcribing the ST item into corresponding letters of the TL.
- 10- *The strategy of avoidance*: This strategy refers to subjects' elimination of some translation units in the final manuscript. The subjects seemed to employ this

playing it safe strategy to avoid the provision of a haphazard TT equivalent in cases of insoluble problems, which could lead to a serious translation error.

11- *The strategy of deferment*: This refers to instances of leaving a momentary gap in the translation with the aim of filling it out at a subsequent stage of the translation process. The subjects seemed to resort to this technique for three purposes: a) to avoid the interruption by a lengthy search for a solution to a problematic item, b) as a timesaving procedure, and c) to give a chance for posterior feedback.

12- *The strategy of word-segmentation*: This refers to the cases in which subjects segment a certain problematic lexical item into smaller units with the objective of finding its meaning via the analysis of and search for the meaning of its segmented parts.

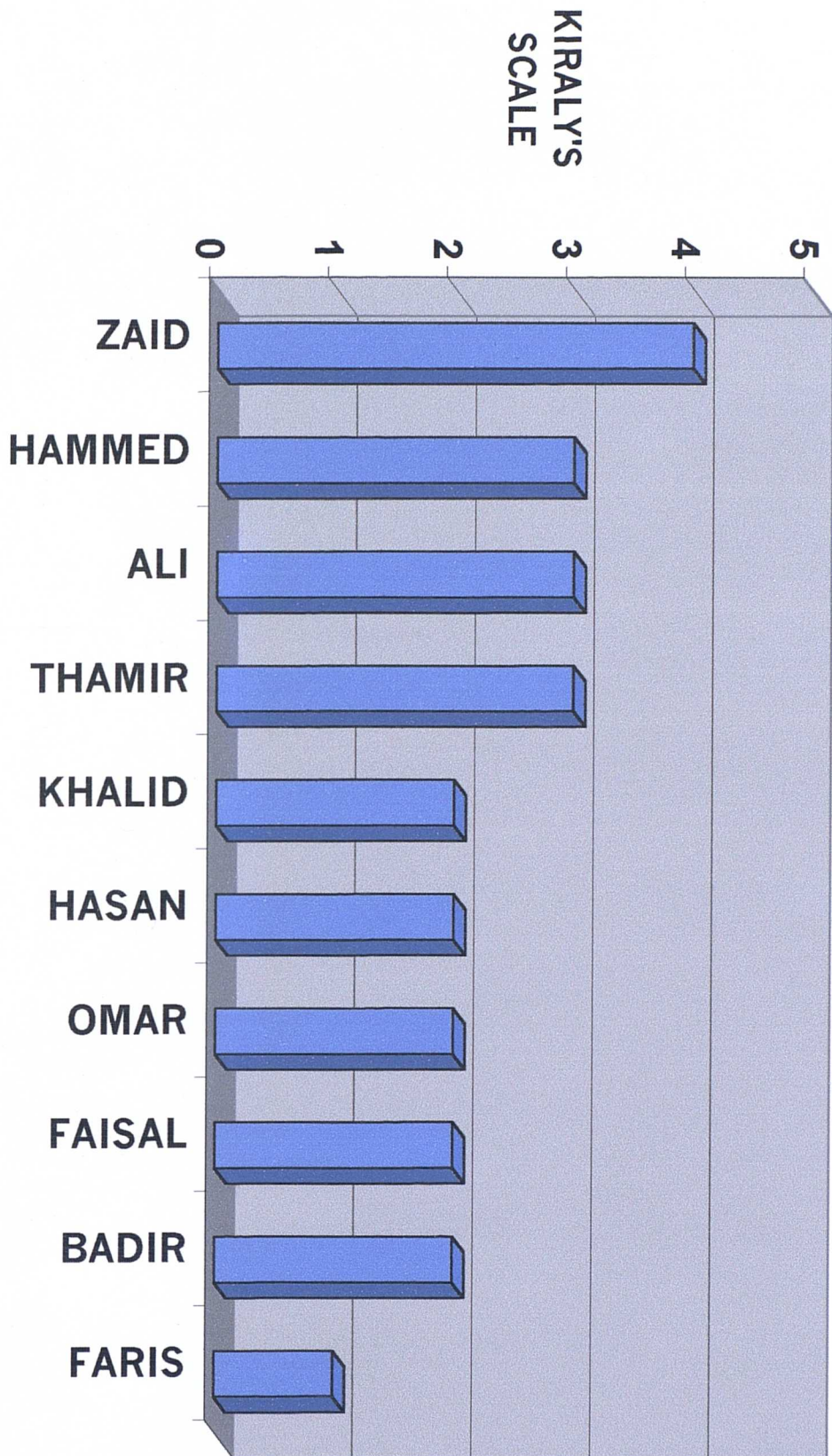
8.1.6. Evaluation of product and process

In chapter 6, the aim was to evaluate subjects' product and global behaviour. Two types of assessment techniques were used to assess subjects' end translations: (1) *global quality assessment method*, based on Kiraly's model (1995), which allowed a general evaluation of the end product and (2) *error analysis technique* which allowed a detailed assessment of individual mistranslated units.

Evaluating subjects' end product and global behaviour yielded the following main results:

a) The overall quality of the subjects' end translation was generally low with a large number of serious translational errors (c.f. figure 8.3, page 302). This was attributed largely to subjects' observable translation incompetence (e.g. context-insensitivity) as well as the problematic nature of the STs.

Figure 8.3 : SUBJECTS' GLOBAL EVALUATION ACCORDING TO KIRALY'S SCALE(5 very good, 4 good, 3 poor, 2 adequate, 1 unacceptable)



- b) The majority of subjects applied a haphazard approach to the ST. They carried out their translation task in only one stage without generating any form of fruitful introductory or editorial activities.
- c) The most observable global behaviours which significantly influenced the quality of subjects' end translations were (1) the degree of sensitivity to potential translation difficulties and the rate of success in problem-solving, (2) the efficiency in the use of reference materials, (3) the degree of textual-awareness, (4) the degree of concentration, (5) the degree of faithfulness to the ST (i.e. free vs literal translation), (6) the degree of self-awareness and evaluative attitude, (7) the preparatory and editorial processes, and (8) the degree of readership-orientedness.

8.1.7. Implications and recommendations

The primary aim of chapter 7 was to present the main didactic implications of the present study. The inefficient translation performance of the majority of subjects was seen as an indication of some deficiency in their translation-training programme, and accordingly a sufficient stimulus to investigate the shortcomings of translation pedagogy (with particular reference to Saudi universities) and to suggest some insightful recommendations. The main identified weaknesses of subjects' translation instruction included:

- 1) Viewing translation as a language exercise for promoting general linguistic proficiency. This traditional view seemed to result from a) the lack of defined aims of the translation programme, b) lack of motivation of both instructors and learners, and c) inadequacy of time devoted to translation training.

- 2) Lack of a dynamic methodology for translation instruction. The only practised method was the traditional teacher-centred approach, which was based on the instructor's *fair model*, thus giving little room for learners' creativity.
- 3) Lack of a defined course curriculum to guide translation trainers. Translation materials were selected on a random fashion, without consideration for text type or level of difficulty.
- 4) Lack of training in how to use reference material.
- 5) Lack of training in how to approach a translation task.
- 6) Lack of clear standard against which learners' progress could be measured.
- 7) A gap in translation trainees' L2 competence.

To find remedy for these flaws in translation pedagogy, I proposed a number of didactic recommendations, which can be summed up as follows:

- 1) Translation educators should outline the main objectives of the translation programme and should promote translation as an independent discipline.
- 2) Students should be made aware of the basic principles of the process of translation via some kind of introductory course on translation theory.
- 3) Translation instructors should be encouraged to replace the passive teacher-centred teaching methodology with a more dynamic and stimulating approach that fosters the learners' role in sharing the learning process, e.g. allowing students to see alternatives.
- 4) Translation educators should set a criterion for the design of a systematic translation curriculum, which exposes learners to a wide range of text types.
- 5) Translation instruction should be skill-oriented; i.e. it should focus on the translation skills that are required to carry out the translation task successfully. The main skills include (a) the use of reference material, (b) the use of context to

infer meaning, (c) preparatory and revising techniques, and (d) identifying and solving translational problems.

6) Translation instructors should employ a systematic assessment procedure, which takes into account the communicative nature of translation. Instructors are also encouraged to adopt some of the constructive features of student-focus evaluation techniques so as to enhance learners' self-awareness and self-confidence.

7) Learners' L2 competence could be enhanced by (a) dealing with a wider range of subject areas, (b) getting learners to write a glossary of new information, and (c) giving learners a lexicography and terminology course.

8.2. Future directions

The present study has, hopefully, contributed to the identification of some aspects of the translation process of trainee translators, particularly in relation to lexico-semantic problems, problem-solving strategies and global behaviour. The analysis of the data yielded the result that translational problems and problem-solving strategies were the two most important features of the translation process of translation learners. The present experiment has also substantiated the applicability and reliability of TAPs technique for obtaining data on the process of translating. However, despite the insights that can be gained from the findings of the present study, I remain perfectly aware that the validity of any experimental work is limited to its scope. Thus, it should be borne in mind that the results arrived at in the present experiment should not be generalised to include all types of translators (novice and professional translators), as it is conspicuous that translation processes vary according to the level of translation competence.

In the course of the analysis of subjects' protocols, a number of areas in empirical translation study, which are beyond the scope of the present study, were seen to merit further research:

1. Investigating trainee translators' unit of translation, i.e. the size of language unit (e.g. word, phrase, clause, sentence, etc.) which translation learners work with in their processing of the translation text. A logical next step would be to compare trainee translators' unit of analysis with that of professional translators.
2. Using introspective and retrospective techniques to investigate the process of interpretation of both professional and non-professional interpreters, particularly in relation to problem-solving strategies (c.f. Kalina 1994). The results of such an investigation would undoubtedly reveal different types of rendering processes to the ones obtained in the present study.
3. Investigating other types of translational problems encountered by trainee translators, e.g. syntactic and stylistic problems, and their effect on the quality of the translation.
4. Investigating the translation process and product of trainee translators through exposing them to different types of translation tasks, e.g. translating into the foreign language, translating for a specific assignment (translating for a particular audience), translating without reference materials, and summarising.
5. Combining introspective, i.e. thinking aloud, and retrospective techniques (e.g. interviews) to elicit further aspects of the translation process. The retrospective method should play a subordinate role to TAPs technique by concentrating on elements of the translation processes which introspective methods fail to yield. It is also quite feasible to employ dialogue TAPs technique, i.e. asking subjects to think aloud in pairs, to elicit data on the translation processes. Dialogue TAPs

may allow elicitation of some of the subconscious processes of translation (those that are unobservable via monologue TAPs), e.g. when subjects ask each other how they have achieved certain translations.

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APPENDIX (1): A SAMPLE FROM SUBJECTS' PROTOCOLS (HASAN)

... Halloween .. اعتقد إن Halloween مصطلح وهي حقيقة من ال terms التي نواجهه
منها صعوبة لأنها تعتمد على الخلفية الثقافية.. اعتقد أن Halloween عيد وتوصلت لهذه الحقيقة لأنني
ترجمت قطعة باسم Halloween وهي تتكلم عن عيد للثقافة الغربية... نسيت بالضبط ما هو المقصود
من معناها لكن قدامي الآن صورة واعتقد انه.. استشف منها أنها للأطفال هذا عيد الأطفال فيه المرح فيه
السرور سيما وان الأطفال يجمعون اكبر قطعة ممكنة من القرع ويشكلونها على شكل وحش مبتسم.. كما
قلت أن Halloween اعتقد أنها عيد اسمه عيد التنكر.. حقيقة ذهبت إلى بريطانيا وسالت my host
family about Halloween أخذت فكرة لكنها مبسطة يعني ما أخذت فكرة عميقة عن العيد إلا
أن الاسم اللي أتذكر انه اسمه عيد التنكر.. ولكن لكي أرسخ المعنى لابد أن أبحث في قاموس القارئ اعتقد
انه ذاكر الكلمة هذي.. ولكن بنتابني شعور اني لن أجد معناه لأنه مصطلح ثقافي [checking]
hallow يقدر بمجد يعظم ارض مقدسة.. لكن ما اعتقد أن معناها مقدس لكن لأبحث في قاموس
Longman لعلني أجد فيه حقيقة دراسة الأعياد أمر مهم جدا للتعرف على الثقافة.. كان عندي
كتاب عن الأعياد اسمه American Days وكان فيه Washington Days وكان فيه
Mother Day وكان فيه Labor Day وأذكر فيه Halloween لكن ما قرأته قراءة مستفيضة
لكن لعلني أجدها هنا في القاموس [checking] يقول 31st of October the night of
when it was formerly believed that the spirit of the dead appears and
when the children dress up in strange clothes and play tricks
عشان أفهم الموضوع فهم دقيق.. 31st of October the night of أكتوبر 31
تظهر عندما يكون الأطفال strange clothes and play tricks يعني يلعب فيها الأطفال
ألعاب.. اعتقد نعم توصلت إلى تعريفه أن اسمه عيد التنكر وهو اعتقد مشهور في أمريكا وبريطانيا.. رأيت في
الصور عيد التنكر.. رأيت بعض الأطفال يلبسون أو يلونون أبدانهم بشيء من الألوان بحيث يطلع على
شكل أسد أو نمر فأتوقع أن هذا من ضمن.. هذا يدخل تحته عيد الحالوين.. طيب...

... [reading the ST] ..biomedical .. ما أعرف معناها ولذلك سأبحث في قاموس القاري
واعتقد أنها medical شي متعلق بالطب, لكن هذا bio prefix لابد نعرف ويش معناها..
biomedical, biomedical, ..[checking the bilingual dictionary]
..poor dictionary ..bio ..biomedical ما هي موجودة هنا, نبحث في القاموس الآخر..
biomedical, biomedical, ..[checking the monolingual dictionary]
biomedical .. مشكلة ما لقيتها .. bio .. ما وجدتها ولكن ودي أكمل الترجمة ثم ارجع الى هذه مرة
ثانية...

[When my father was a biomedical repairman in a VA hospital
much time was spent tracking down parts]

..repairman .. الظاهر انه يشتغل في زراعة الأعضاء أو التجميل ..I guess so
..I am checking it up .. repairman, repairman, repairman
[checking] ..repair, repair, repair.. يصلح, يرمم, يعوض, ترميم,
إصلاح .. الكعبي كثنائي ل repair لغة رسمية, يتوجه, لا المعنى هذا بعيد لأن الأول معناها يصلح, يرمم,
إصلاح .. معناها الظاهر يصلح .. جراح تجميل؟ .. أعتقد ما فيه تصلح للحسم...

[when my father was] biomedical الbiomedical
تجميل؟ .. VA. VA. VA .. abbreviations .. مشكلتها نواجه منها مشاكل .. كذلك
ال abbreviation وال cultural terms هذه نواجه منها أكثر المشاكل نحن الطلاب العرب لأن
المشكلة ليس لدينا اختصارات باللغة العربية .. ما معنى VA Hospital .. hospital معروف .. لعلني
أبحث عنها في قاموس المختصرات VA [checking the bilingual dictionary] .. ما هي
موجودة .. مشكلة, أعتقد أنها charity إحسان, اعتقد انه مستشفى خيري, لكن نرجع لها ثاني ...
much time was spent tracking down parts .. اللي أعرف أن trace يعدو, يجري,
لكن trace down هذي كذلك نواجه منها مشاكل .. إذا عندنا ثلاثة أشياء, ال cultural
terms, abbreviations ال phrasal verbs و tracing down parts, tracing ..
down parts, الظاهر أنها إصلاح أو إعادة تركيب, أعمل لها check ...

[checking] .. trace back .. parts .. يعني أعضاء لكن trace down الظاهر أنها ترميم أو
تركيب .. عندي trace معناها أثر الأقدام as a noun وطريقة, مسلك, سبيل .. لكن verb معناها

يقتفي أثر, يقتفي درب.. أعتقد كان يقضي الوقت الطويل في تركيب الأعضاء.. هذي trace يقتفي
لكن كيف يقتفي الأعضاء.. لكن المعنى الذي تبين لي يعني يركب الأعضاء...

[One day his co-worker Tim spent a particularly frustrating morning on the phone being put on hold]...

co, أعتقد انما prefix يسبق الكلمات بمعنى مساعد, أعتقد أن co-worker مساعد.. put on hold هذا hold
put on hold .. verb phrasal .. معناها أن إذا اتصلت على بريطاني قال لي hold
on أعتقد انه أطلال البقاء في انتظار مكالمة.. أعتقد كذلك, لكن let me check it up
[checking the dictionary].. put on .. معناها يتظاهر, يتصنع.. لا .. hold ..

ما لقيتها.. let me check it in hold [checking the dictionary] .. ما فيه, أعتقد
أنه أطلال الانتظار.. co-worker أعتقد أنه رفيق, مساعد كما قلنا... وفي يوم من الأيام قضى مساعده
الذي يدعى Tim صباحا.. frustrating, معناها مزعج, صباحا مزعجا.. frustrating مزعج?..
[checking the dictionary] .. frustrate يحبط, يزعج, وضعت كلمتين مزعجا ومحبطا
لكي تكون أحدهما مناسبة.. وذلك بسبب بقائه ينتظر عند التلفون, عند الهاتف...

[After waiting for ten minutes during one call, he became determined to stick it out.]..

stick it out, معناها الظاهر يصك السماعه.. stick it out معناها يبرز, لكن stick it out
ما أدري.. check it up now [checking the dictionary] .. يواصل جهوده حتى
النهاية, كيف يواصل جهوده حتى النهاية.. الظاهر أنه واصل ما صك السماعه عكس ما قلت واصل..
وبعد انتظار دام لعشرة دقائق لمكالمة واحدة فقط عزم على الاستمرار في المكالمة دون قطعها.. twenty
minutes later it was a battle of wills .. wills, wills أذكر معناها
بئر لكن هذا الظاهر battle of wills .. phrasal ما أعرف.. will معناها وصية لكن تختلف
هذي, يمكن تكون phrasal ...

[checking the bilingual dictionary] will غير موجودة, لكن نبحت عن battle
.. هذي معركة .. ماهي موجودة.. poor dictionary .. أبحث في قاموس.. [checking the
monolingual dictionary] .. عجيب ما لقيتها.. fight between enemies .. عجيب
ما هي موجودة.. wills الظاهر انما جمع نية أو إرادة.. لا أعتقد لكن لا بد أن نعرف المعنى القريب.. مل

عرفته, لكن المعنى القريب لها يريد, يشاء, نتمنى أن يكون الأمر كذلك.. [checking] .. يوصي,
إرادة, تصميم, قوة إرادة, ليس له إرادة مستقلة, إرادة تصميم, عزيمة, الرغبة, حسن نية.. غالبا وصية..
أعتقد أن will معناها تصميم.. ولقد تطور الأمر الى أن أصبح حرب اعصاب؟ الظاهر أنها حرب أعصاب
battle of wills الظاهر انه حرب أعصاب, حرب أعصاب أو معركة ارادات.. أعتقد أنها كذلك..
After a half-hour he was in a state of disbelief .. وبعد مضي نصف ساعة أصبح
في حالة من disbelief.. believe معناها يعتقد أو يؤمن disbelief معناها الحرى الكفر لكن
disbelief الظاهر معناها لا يصدق أو عم التصديق, أو لا يصدق نفسه.. disbeliever معناها
كافر .. disbelief ...

a state of disbelief? ما هو معقول في حالة كفر.. disbelief قد يكون ثورة من الغضب,
وصل به الغضب الى أن يرتكب محظورا.. disbelief جحود, النكران.. كيف تكون هنا state of
disbelief إنكار, جحود, نكران.. لا يصلح هذا.. وبعد أن أصبح في حالة من.. لأضع النقاط رعا
يتضح المعنى في سياق الجملة..

elapse..when 45 minutes had elapsed ما معناها؟.. أول مرة تمر علي.. [checking]
[the dictionary].. elapse معناها يمر, ينقضي, يعني pass.. وبعد مضي ٤٥ دقيقة ردت
امرأة على الهاتف قائلة are you being helped هل تمت مساعدتك, هل أعطيت مقصودك سؤلوك
مثلا.. yes, Tim snapped snap, snap, snap, لا أعرف معنى snap والله إنما مرت بي
لكن لعلي أبحث عنها.. مشكلة ال memory عندنا.. الذاكرة عندي ضعيفة جدا.. snap, snap
snap [checking the dictionary].. معناها بعض, يرد بحدة وجفاء, ينقطع, ينكسر, يفتح
ويغلق بعنف.. الظاهر انه يرد بحدة.. فرد بحدة قائلا: نعم yes .. Shari put me on hold .. نعم
put me on hold, لقد جعلتني شارى أنتظر على الهاتف لمدة ٤٥ دقيقة.. ago مفهوم أنها ماضية..
... Oh, said the voice, Shari left on vacation

oh, oh معناها يا الهى. فقالت المرأة متعجبة يا الهى لقد left on vacation غادرت شيرى في

إجازة...

APPENDIX (2): TRANSLATION ASSIGNMENT AND STs

SECTION ONE

Translate the following texts (and segments of texts) into Arabic. For text (A) and (F), please translate only the underlined items:

TEXT (A)



The Admiral of Halloween

In the little village of Rector, Pa., it was a given, handed down from the upper echelons of parental hierarchy, that for approximately five days leading up to Halloween we were issued a sort of mischief licence. We were allowed to run free after dark! What terror we thought we were visiting on the countryside. I can still feel the excitement as we hurled handfuls of hand corn against the window of a house, then ran, hearts pounding, into the blackness, anticipating that icy thrill up our spines as a sudden burst of porch light raced out to fall across our shoulders. Our sneakers would slap the macadam some distance down the roads, giggling and laughing, we finally decelerated to catch our breath and plot the next attack...

(Reader's Digest, October 1996)

TEXT (B)

All in a Day's Work

When my father was a biomedical repairman in a VA hospital, much time was spent tracking down parts. One day his co-worker Tim spent a particularly frustrating morning on the phone being put on hold. After waiting for ten minutes during one call, he became determined to stick it out. Twenty minutes later it was a battle of wills. After a half-hour he was in a state of disbelief. When 45 minutes had elapsed, a woman finally came on the phone, asking, and "are you being helped?" Yes" Tim snapped. Shari put me on hold 45 minutes ago." Oh," said the voice, "Shari left on vacation."

(Reader's Digest, October 1996)

TEXT (C)

Diamicron

Side effects: The side effects are those which occur with this type of drug. They are: - mucocutaneous reactions, blood disorders, minor gastrointestinal disorders, hepatic disorders. These symptoms are very rare with DIAMICRON but if in doubt, consult your physician.

(Leaflet by Les Laboratoires Servier, France)

SECTION TWO

TEXT (D)

David Nicholas

Rare is the American who has not dreamed of dropping whatever he is doing and hitting the road. The dream of unrestrained movement is distinctly American one, an inheritance bequeathed by those restless souls who populated the American continent. Travel is part of our national folklore. (Reader's Digest, October 1996)

TEXT (E)

Joe McDonald

One of my favorite words is "miscommunication." Its meaning has become so broad as to justify everything from the Middle East crisis to why a relative missed the wedding. In the business world, vendors and clients alike use it to explain away huge mistakes and, best of all, without assigning responsibility to any one. It is the verbal Get-Out-of-Jail card of the '90s. (Reader's Digest 1996)

TEXT (F)

As we saw in Chapter 1, translation can be viewed as a process. In this chapter, we shall view it as a product. Here, too, it is useful to examine two diametric opposites, in this case two opposed degrees of translation, showing extreme SL bias on the one hand and extreme TL bias on the other.

At the extreme of SL bias is interlineal translation, where the TT does not necessarily respect TL grammar, but has grammatical units corresponding to every grammatical unit of the ST. Interlineal translation is rare, and is normally only used in language teaching or in descriptive linguistics. Since it is of little practical use to us, we shall not, in fact, consider it, other than to note its position as the furthest degree of SL bias. Interlineal translation is actually an extreme form of the much more common literal translation, where the literal meaning of words is taken as if from the dictionary (that is, out of context), but TL grammar is respected. (Literal meaning will be discussed as such in Chapter 7.) For our purposes, we shall take literal translation as the practical extreme of SL bias.

At the extreme of TL bias is completely free translation, where there is only a global correspondence between the textual units of the ST and those of the TT. (Thinking Translation, 1992)

APPENDIX (3): A QUESTIONNAIRE

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الاسم:

المستوى:

أجب من فضلك عن الأسئلة التالية بالتفصيل:

١- أذكر أسماء القواميس التي تستخدمها أثناء الترجمة، وما هو قاموسك المفضل، ولماذا؟

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٢- هل تستخدم القاموس لتعلم مهارات أخرى بخلاف الترجمة؟

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٣- ما هو غرضك من استخدام القاموس أثناء الترجمة؟

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٤- ما هي الصعوبات التي تواجهك أثناء استخدام القاموس في عملية الترجمة؟

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٥- هل قام مدرس الترجمة بتدريبك على كيفية استخدام القاموس؟ إذا كان الجواب بنعم، أكتب باختصار عن حجم وكيفية التدريب.

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٦- هل استخدمت القاموس أثناء المرحلتين المتوسطة والثانوية؟

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٧- هل تستفيد من الأمثلة الموجودة في القاموس لشرح الكلمات أم تكتفي بقراءة المرادف الأول, وضح ذلك؟

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٨- هل تستطيع الترجمة دون استخدام القاموس, ولماذا؟

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٩- هل تلجأ الى القاموس مباشرة عندما تجد صعوبة في فهم فقرة ما أثناء الترجمة, أم تحاول استخدام استراتيجية أخرى كالتخمين مثلاً؟

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١٠- هل لديك اقتراح فيما يتعلق باستخدام القاموس في دراسة الترجمة؟

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