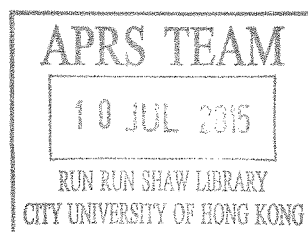# CITY UNIVERSITY OF HONG KONG
香港城市大學

Problem Analysis and Learning of Interpreting:
A Study in Student Perception, Teacher Evaluation and a Corpus-Based Analysis of Student Performance
問題分析與口譯學習：
學生自我認識、教師評估及學生口譯表現的語料庫分析法

by

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二零一二年十一月

To my parents

Abstract

Problem analysis has played an important role in studies concerning students and professional interpreters. While problems in interpreting have been investigated by different schemes and approaches, little consensus has been reached on the paradigm of analysis. Although interpreters' and trainees' self-perceptions of their interpreting performance have been reported in previous studies, they are seldom compared with an evaluation of their actual performance. In interpreter training, learners' self-perceptions of their problems usually serve as the monitor of their learning process, which makes it crucial to study learners' perceptions and their relationship to factors associated with the learning of interpreting. This study thus aims to fill the research gap and make a significant contribution in this area.

The present study set out to investigate the learning of interpreting from a problem analysis perspective. A three-level analytical model of interpreting problems was applied in the study, including problems at the levels of language/form, content/meaning and presentation/delivery. Participants of the study included 317 undergraduate students enrolled in interpreting courses (English and Chinese) in a university in southeast China. In addition, 4 interpreting teachers participated in the research. A combination of questionnaires, interviews and elicitation interpreting tests was employed. Focus group interviews were conducted with 45 students who were selected based on parameters of interest in this study. Students' interpreting scores and language scores were collected as achievement measures. A group of 77 students participated in the elicitation interpreting test, the output of which consisted of a small-size interpreting learner corpus.

Findings of the study suggest that students applied meaning-oriented criteria in their self-evaluation in interpreting. However, they more often seemed to encounter delivery level problems in their interpreting practice. Deficiency in relevant vocabulary was also a concern of student interpreters. Many learner variables were found to be significantly related to students' perceptions of interpreting problems, including dialect, family background, language competence (Chinese and English), language learning habits (English), self-training duration, knowledge of, interest and confidence in interpreting, as well as their multitasking skills and short-term memory. Students' score

in English Listening, their self-perceived Chinese writing ability and score in English Intensive Reading were found to be the top three significant contributors to their interpreting achievement. Moreover, the comparison between student-perceived and teacher-evaluated problems in interpreting indicated that students tended to significantly under-evaluate the problems of "inaccurate pronunciation" and "repetition and self-correction". A corpus-based analysis of students' interpreting output in the elicitation test suggested that there were substantial occurrences of both types of problems. The students' greatest pronunciation problem was segmental error, especially the use of incorrect consonants. For the second problem, most self-repairs and truncated segments were finished by students. The former occurred primarily at the lexical level and the latter at the phonological level, both often resulting in the articulation of relevant segments.

This study provided a three-dimensional way to examine problems in students' learning of interpreting at the undergraduate level. Learners' self-perceptions, teacher's evaluation of their actual problems and a corpus-based analysis of their under-evaluated problems were all included in the picture. Influences from learner variables were taken into consideration. The impact of these variables and problem perceptions on learners' achievement in interpreting was also examined. The study indicated the importance of addressing relevant learner variables in interpreting classrooms, such as learners' socio-biographic and cognitive-affective factors, language competence and learning habits. It also called for a supportive classroom environment to help learners examine their interpreting performance in a more objective way. The subsequent corpus-based analysis of students' under-evaluated problems provided specific insights to the training of interpreting students.

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Chapter 1 Introduction

Research on the training and learning of interpreting represents a considerable proportion of Interpreting Studies. For example, as one of the earliest researchers in the discipline, Eva Paneth (1957, as in Pöchhacker & Shlesinger, 2002b) reported in her MA thesis on the observation of the interpreting practice. The study provided pedagogical insights for the training of interpreters. In the specialized bibliography on interpreter training by Altman (1987), many important studies on the teaching of interpreting between 1970s and the late 1980s were introduced, including those in different languages and from different countries. The Language International Conference series, which began in 1991, has covered topics concerning the teaching of translation and interpreting in particular, most of which have been collected in the conference proceedings (see Dollerup & Loddegaard, 1992; Dollerup & Lindegaard, 1994; Dollerup & Appel, 1996; Hung, 2002).

Recent changes in global higher education and in international job markets pose new challenges for the training and learning of interpreting and for relevant research. As stated in Kelly and Way (2007), although there have been substantial discussions on didactical issues – i.e., "what to teach" – in earlier research, there has been a recent increase in the number of studies on the learning of translation and interpreting that provide practical insights into "how to teach" (p. 2). Such a change of focus from training to learning is, on the one hand, relevant to the humanistic view in general education (see Kiraly, 2000) and, on the other hand, greatly influenced by research on Second Language Acquisition (SLA) (see Williams, 1994). Moreover, due to the expanding target of current training programs (see Pym, 2001) and the increasing phenomenon of training for working into the B language[1] (see McAlester, 1992; Campell, 1998; Donovan, 2004), established research (e.g. Delisle, 1981; Weber, 1984)

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[1] According to AIIC language classification, A language is "the interpreter's mother tongue (or another language strictly equivalent to a mother tongue), into which s/he interprets from all other working languages, generally in the two modes of interpretation, simultaneous and consecutive" (AIIC, 2004, language combination, para. 3), while B language is "an active language which is not the interpreter's mother tongue" and "can only be acquired after years of hard work and frequent stays in a country of that language" (ibid, para. 4). Usually, it is "customary only to work into the second active language out of the mother tongue" (ibid, para. 4).

and teaching experience (e.g. School of Translation and Interpretation (ETI), University of Geneva; School of Interpreting and Translation (ESIT), University of Paris III) informing professional conference interpreter training are hardly applicable. Thus, there is a growing need for research, especially from an empirical perspective, to guide training at different levels and for different language combinations.

In particular, problem analysis[2] has frequently been observed in research on interpreting learning[3] (e.g. Ficchi, 1999; Lindquist, 2005). As a form of product analysis, it can provide insights into the process of learning and reveal important aspects for pedagogical development (see Tarone & Yule, 1989; Ficchi, 1999; Pan & Yan, 2012). A problem analysis of students' interpreting performance is also instrumental to the development of criteria for classroom assessment (Lindquist, 2005). Many classroom assessment or testing schemes apply a system based on error calculation (see Sherwood, 2000). Therefore, the study of problems in interpreting learning is of great significance.

1.1 Statement of the Problem

Despite much attention in the academic field, the study of interpreting learning and a more "systematic investigation" (Pöchhacker & Shlesinger, 2002b, p. 177) of student interpreters are comparatively rare. A majority of the research on interpreting pedagogy is concerned with the development of training methods and techniques (see Altman, 1987; Dollerup & Loddegaard, 1992; Dollerup & Lindegaard, 1994; Dollerup & Appel, 1996; Hung, 2002; etc.). It was not until the last decade that the research focus moved to the study of learners and their learning process, as exemplified by studies on the development of interpreting competence (e.g. Kalina, 2000; B. Wang, 2007) and on factors influencing learner performance, e.g. aptitude (see López Gómez, Bajo Molina, Padilla Benítez, & Santiago de Torres, 2007; Timarová & Ungoed-Thomas, 2008;

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[2] This study uses the term "interpreting problems" to refer to the observable inconsistencies between the produced interpreting outputs and the expected interpreting outputs or the difficulties in achieving the latter, regardless of binarism (see "2.1.1 Defining Problems in Interpreting Learning" in Chapter 2). "Problem Analysis", instead of "Error Analysis", is used in this study to distinguish itself from Error Analysis (EA) in SLA, which is an outdated and also controversial term in the discipline (also see Chapter 2).

[3] "Interpreting learning" and "the learning of interpreting" are used interchangeably in this study. Both are used in contrast to "the teaching of interpreting". While the former focuses on "how students learn", the latter emphasizes "what to teach" (Kelly & Way, 2007, p. 2) (also see Pan & Yan, 2012; Yan, Pan, & H. Wang, 2010; Yan, Pan, H. Wu, & Y. Wang, in press).

Russo, 2011; Shlesinger & Pöchhacker, 2011), anxiety (see Jiménez Ivars & Pinazo Calatayud, 2001; Chiang, 2009, 2010), personality (see Schweda Nicholson, 2005), language competence (see Campbell, 1998; Malkiel, 2008), etc. Nevertheless, there is a dearth of literature addressing the complicated matter of interpreting learning. Greater efforts are necessary in this respect, especially under the influence of the "humanistic" trend in interpreter training as suggested by Grbic (2008, p. 265).

As far as research methodology is concerned, recent years have seen a growing number of studies on interpreting learning with an empirical design. According to Pöchhacker and Shlesinger (2002b), studies in the field of interpreting pedagogy used to consist of "experiential description" (p. 177). Currently, more empirical studies have been conducted and the field has borrowed abundantly from adjacent disciplines such as SLA. For example, the study of Yan, Pan and H. Wang (2010) applied quantitative analysis of students' self-reported questionnaire data and their interpreting scores. In addition to identifying a number of learner factors influencing interpreting learning, the study found that learners' language abilities were significantly related to their interpreting ability. In Shaw, Gribic and Franklin (2004), a qualitative research approach was adopted, whereby focus group interviews were held with student interpreters. Applying a grounded theory approach, the study established a model consisting of constructs concerning the successful transition from language learning to interpreting learning. However, although the significance of the triangulation of research methods in providing more reliable findings has been recognized (e.g. Nunan, 1992/2008; Creswell, 1994), such design is rarely seen in studies on interpreting learning.

Although promoted by Shlesinger (1998) more than twenty years ago, corpus-based interpreting research is still in its infancy. Despite the extensive use of corpus analysis in contrastive analysis (e.g. Gilquin, Papp, & Díez-Bedmar, 2008), error and interlanguage analysis of second language learners (e.g. Granger, 1998; Granger, Hung, & Petch-Tyson, 2002) and in investigations into translation universals (e.g. Mauranen & Kujamäki, 2004), most corpus-based interpreting research primarily concerns the study of "interpretese" (see Shlesinger, 2008, p. 237) with the development of a few corpora composed of professional interpreting, such as the European Parliament Interpreting Corpus (EPIC) (see Bendazzoli & Sandrelli, 2005, 2009). More recently, corpus-based

assessment has been recommended for interpreting classrooms (e.g. Lindquist, 2005) and with respect to the construction of a corpus of interpreting learners, such as the Parallel Corpus of Chinese EFL (English as a Foreign Language) Learners (PACCEL) (Wen & J. Wang, 2009). Nevertheless, the potential of corpus analysis in interpreting-classroom research requires further exploration.

Moreover, although problem analysis has been used and proved beneficial in researching interpreting learning (e.g. Ficchi, 1999), it is difficult to reach a consensus on the definition and classification of problems of interpreting learners. For example, as one of the earliest researchers on problem analysis in interpreting, Barik (1971), following the trend in translation error analysis, regarded meaning departures between the source speech and target speech as errors in interpreting. He classified these errors into omissions, additions and substitutions or errors of translation. Falbo (1998), however, studied both content problems and form problems in simultaneous interpreting output. Likewise, Chang and Schallert (2007) applied a combination of propositional analysis of the semantic content and error analysis of the linguistic quality in their analysis of simultaneous interpreting. In addition, there are studies devoted to the particular investigation of speech-related problems in interpreting products, among which, silent pauses and disfluencies are most often discussed (e.g. Moser-Mercer, Kuenzli & Korac, 1998; Tissi, 2000; Macias, 2006). These studies underlie the potential scope of problem analysis in interpreting.

Furthermore, there are disputes over whose judgment should be applied in the evaluation of learners' performance. Most of the previous research applies the assessment by teachers or researchers. Recently, however, an increasing number of studies focus on learners' or professional interpreters' perceptions of their own performance and problems in interpreting (e.g. Bartłomiejczyk, 2007; Takeda, 2010; Bontempo & Napier, 2011; Pan & Yan, 2012). There is even a growing tendency to use self-assessment in interpreting classrooms as a measure of learners' acquisition of interpreting knowledge (e.g. H. Lee, 2005; Fowler, 2007; Postigo Pinazo, 2008). Nevertheless, the disparity between the evaluation criteria and the assessment results of teachers and learners have seldom been addressed in previous studies. Moreover, the judgment of learners and that of teachers or researchers, both human assessments, are

subjective and may be influenced by saturation when the process is lengthy. Therefore, it is challenging to understand what learners' actual problems in interpreting classrooms may be.

Despite the lack of study regarding learners' actual problems versus their self-perceptions, there has been recent interest in investigating interpreting learners' problems in relation to other factors in the learning of interpreting. For example, a handful of studies explored the relationship between students' problems and different learner variables or their achievement in learning interpreting (see Yan et al., 2010; Pan & Yan, 2012). Many more efforts are needed in this respect before a fuller picture of interpreting problems can be sketched and their role in interpreting learning can be identified.

What remains to be addressed includes the lack of systematic empirical investigation into the burgeoning college interpreting programs in China. With the largest population in the world, the country nurtures a great interpreting market and has an ever-growing need for gaining and imparting knowledge in English (see Dawrant & Jiang, 2001; Xu, 2005; Pan, Sun, & H. Wang, 2009; B. Wang & Mu, 2009). Following the policy in 2000 to make interpreting a "compulsory course" for all English major programs at the undergraduate level (Dawrant & Jiang, 2001, Training and Accreditation section, para. 2), programs of Bachelor in Translation and Interpreting (BTI) were established as trial programs in 2006 in the Chinese mainland (see Q. Wu, 2010). As it is difficult to apply the established pedagogy from the West in these newly developed interpreting programs (see Pym, 2001), it is necessary to conduct more relevant research in the context of Chinese higher education. As put forward in Kelly and Way (2007), although much is known about the more traditional profiles of teaching and learning in Western countries, investigation into interpreting in developing countries, which rarely appears in the discourse of interpreting pedagogy research, is necessary in contextualizing "translator and interpreter training within this broader higher education framework" (p. 6).

1.2 Purpose and Significance of the Study

The current study, based on empirical data gathered from interpreting courses from

a university in southeast China, serves as an attempt to address the above-listed issues. Specifically, this study aims to investigate learners' performance from a problem analysis perspective, where learners' perceptions of their problems in interpreting, teacher's evaluation[4] of their actual performance in an elicited test and a corpus-based analysis of students' under-evaluated problems were examined and compared. The relations between students' perceptions of interpreting problems and learner variables (including socio-biographic variables, language learning variables and interpreting learning variables) were explored. Contributing factors to students' interpreting achievement were identified. It is hoped that such a thorough investigation of students' problems in interpreting can shed light on interpreting learning and thus provide pedagogical implications for interpreter training. More specifically, the current study aims to address the following research questions on interpreting learning at the tertiary level in China:

Research question 1: How do students perceive their problems in interpreting?

Research question 2: How do learner variables affect students' perceptions of problems in interpreting?

Research question 3: What are the factors that contribute to students' interpreting achievement?

Research question 4: Is there any discrepancy between students' perceptions and the teacher's evaluation of their problems in interpreting?

Research question 5: What are the features and patterns of students' under-evaluated problems in interpreting?

The study is significant in the following respects:

First, this study provides important insights into the development of interpreting pedagogy in the Chinese higher education context. The study was performed based on data gathered from interpreting courses in a Chinese university. Because many similar courses are offered now that interpreting is compulsory for all university English language programs (see Dawrant & Jiang, 2001), the results of the current study may

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[4] In this case, it also refers to the researcher's evaluation (see Chapter 3 Research Methodology).

provide useful insights into the development of such programs.

Second, this study develops a three-level model of problem analysis based on previous research and a few pilot investigations (Pan & Yan, 2009, 2012; Yan et al., 2010). The model classifies students' interpreting problems into those at the language/form level, the content/meaning level and the presentation/delivery level, each including several sub-categories of problems. The relationship between students' perceptions of these problems and individual learner variables was explored. The predicting power on learners' interpreting achievement by these problem perceptions, along with different learner variables, was further examined. In addition, students' perceptions of each of the sub-category of problem types were tested against the teacher's evaluation of their performance concerning these sub-categories. Results of the study can enrich the understanding and development of the model of problem analysis, thereby serving the purposes of both teaching and evaluation in interpreting classrooms.

Third, this study has an empirical design, which investigates the learning of interpreting through the triangulation of research methods. Compared with other studies on the performance analysis of interpreting learners, the current study gathered research data from different perspectives and by various methods, including those collected from learners and teachers and the more objective source of a self-built interpreting learner corpus. The reason for the application of triangulated research methods lies in that the use of any single research method has its individual drawbacks (see Nunan, 1992/2008; Creswell, 1994). The study applied both quantitative and qualitative research methods through the use of questionnaires, interviews, learners' interpreting scores, elicitation test results and transcriptions of their test performance. It is believed that through the triangulation of research data and research methods, a more comprehensive view of learners' problems in interpreting learning can be gained, especially with the objective analysis provided by the corpus linguistic analysis approach.

Finally, the study corresponds to the application of the corpus linguistic approach in the investigation of interpreting learning by attempting to develop an annotated interpreting learner corpus for problem analysis. To compensate for the limitation that a corpus, with large quantity of performance data, usually lacks specific information regarding subjects' mentality during performances or additional information about the

performance (see Granger, 2002), the questionnaire data on learner variables and learners' perception of problems, interviews with learners and teachers and the teacher's evaluation of learners' performance were triangulated to provide complementary findings. The construction of an interpreting learner corpus is a useful start for the analysis of interpreting learners' performance. Such an attempt, when expanded with corpora of learners at different levels with a wider regional coverage or with learner corpora of different language combinations, can reveal more about the learning curve of interpreting learners, the development of interpreting competence and expertise and the special features of interpreted language (cf. Shlesinger, 2008).

1.3 Structure of the Dissertation

The dissertation consists of five chapters.

Chapter 1 introduces the background of the research and the purpose and significance of the study. A general overview of the layout of the dissertation is also given.

Chapter 2 reviews the notion of problem analysis in interpreting and related disciplines. Special attention is paid to the relationship between the concept of "problem" investigated in the current study and relevant terms in Error Analysis, Interlanguage, Translation Shifts, problems in interpreting process analysis, etc. The particular relationship between interpreting competence and the concept of problems in interpreting learning is discussed. Based on these comparisons, this chapter further discusses the scope of problem analysis in interpreting studies. A review is given of existing models in product-oriented, process-oriented and norm-based interpreting studies, in addition to those in accreditation tests and classroom assessment. The chapter further investigates studies on the relationship between language learning and interpreting learning, those on learners' self-perceptions and individual differences in interpreting learning. A summary is provided at the end of the chapter.

Chapter 3 gives an account of the research methods used in the study, including an introduction to the research questions, participants, instruments and procedure of the study, which is then followed by a description of how the data were analyzed in this study.

Chapter 4 lists the findings concerning the five research questions. Quantitative findings from the questionnaire analysis and qualitative findings from the interview analysis, in addition to findings gained from the corpus analysis, are reported with respect to each research question. A chapter summary is also provided for this section.

Finally, Chapter 5 summarizes and discusses this study's major findings. The study's implications for both interpreting research and interpreter training are discussed. The limitations of the study are introduced, along with suggestions for future research. The dissertation's conclusions are presented at the end of the chapter.

Chapter 2 Literature Review

Problem analysis has often been applied in interpreting classroom research (e.g. Ng & Obana, 1991; Shakir & Farghal, 1997; Ficchi, 1999; H. Zhong, 2004; Lindquist, 2005; H. Li, 2009; Pinochi, 2009; etc.). The study of learner problems, allowing learners to act as active subjects in the learning process, is important for the development of both teaching strategies and classroom assessment methods. This chapter will firstly outline a review of studies on problem analysis in interpreting learning as well as those in adjacent fields. Subsequently, a discussion on relevant methods and important findings in previous studies of learner problems will be presented. Relevant studies on teacher evaluation, learner perceptions and corpus analysis in interpreting learning will also be examined. Furthermore, a section on the importance of studying learner perceptions and learner differences in interpreting learning will be provided.

2.1 Problem Analysis in Interpreting Learning

2.1.1 Defining Problems in Interpreting Learning

2.1.1.1 Defining Problems in Interpreting

The study of problems in interpreting is to a great extent related to concepts in adjacent disciplines such as Error Analysis (EA) and Interlanguage Studies in SLA and translation errors or shifts in studies of written translation[5]. Thus it is important to review the development of these related concepts and relevant studies in interpreting before a proper definition of "problems" can be drawn for the current study.

Errors and Interlanguage were both used in SLA to study second/foreign language (SL/FL) leaners' language output as an indication of their learning process. Developed in the late 1960s, EA in SL/FL learning reached its "heyday" in the 1970s (James, 1998, p. 13). A language error is regarded by James (1998) as "an unsuccessful bit of language" (p. 1). More specifically, differentiating between errors and mistakes by

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[5] According to Gile (1995a), Pöchhacker (2004) and Schäffner (2004), translation research and interpreting research are closely related, with one informing greatly the other. Thus relevant literature in translation studies is also reviewed in the current study. Following the convention in Gile (1995a) and Pöchhacker (2004), when written with a capitalized "T", "Translation" is used as a covering term for both "written translation and interpreting", whilst "translation", with a lower case "t", stands for "written translation" only.

systematicness and randomness, Corder (1967/1983) states that the term "error" refers "to the systematic errors of the learner from which we are able to reconstruct his knowledge of the language to date, i.e., his *transitional competence*" (p. 168, italics in the original). Applied widely in language teaching but becoming controversial due to its limited focus on the negative side of learner outputs, EA was later taken over by Interlanguage Studies, which, focusing on the developmental stages of the learner language, becomes more constructive for the understanding of SLA (see James, 1998; Lightbown & Spada, 2006). Interlanguage was defined by Selinker (1972/1983) as "a separate linguistic system based on the observable output which results from a learner's attempted production of a TL (*Target Language*, i.e., the second language the learner is attempting to learn) norm" (p. 176).

EA and Interlanguage have been subsequently applied in Translation Studies. Influenced by the ideas of Selinker, Toury (1979) argues that translation, regardless of direction, i.e., into a translator's mother tongue (cf. A language) or a second language (cf. B language), shares the features of interlanguage when the expected norm of Translation is compared to the target norm in a language learning system. He even proposes that "the analysis of interlanguage forms occurring in translations should form an integral part of any systematic descriptive study of translation as an empirical phenomenon" (p. 225). In addition to being compared to interlanguage, translation, with its intermediate features, is also compared to a translanguage (e.g. Al Khafaji, 2007; Al-Hassnawi, 2010). According to Al Khafaji (2007), translanguage is "a transitionally unstable linguistic entity that evolves during acts of translation along intersecting stages in a 'trip' stretching from the ST (Source Text) towards the TT (Target Text) during which hybrid 'language' comes into being banking on the linguistic and social potentials of the SL (Source Language) and TL (Target Language)" (p. 473, elaboration added by the author of the current study).

Translation error analysis quickly displayed its importance in translation teaching and gained further enrichment in its connotation (e.g. Pym, 1992; M. Kim, 2007). For example, Pym (1992) relates the definition of translational competence to that of translation error and highlights the significance of dividing errors into binary and non-binary in translation teaching. According to him, "a binary error opposes a wrong

answer to the right answer", whilst "nonbinarism requires that the TT actually selected be opposed to at least one further TT1 which could also have been selected, and then to possible wrong answers" (p. 282). M. Kim (2007), forwarding the notion of translation errors in Pym (1992), investigated translation errors with the application of a model inspired by Systemic Functional Grammar (SFG). Errors in the study included "the problematic parts" in student translations "in terms of accuracy and appropriateness" (p. 167). Furthermore, the study of translation shifts has greatly expanded the notion of translation errors to a more norm-governed level (see Munday, 1998, p. 2). Translation shifts, defined as "departures from formal correspondence in the process of going from SL to TL" (Catford, 1965, p. 73), was originally used to mean inconsistence between the ST and the TT at a linguistic level. The notion was later forwarded by van Leuven-Zwart to include comparisons between the ST and TT at the semantic, stylistic and pragmatic levels whereby systemic functional linguistic and discourse theories were incorporated (see Munday, 1998). Therefore, the recent exploration of translation shifts has seen more prominence gained by "the translator's effort to establish translation equivalence (TE) between two different language systems" (Al-Zoubi & Al-Hassnawi, 2001, Introduction, para. 2).

As a much younger discipline (see Pöchhacker & Shlesinger, 2002a), Interpreting Studies have applied problem analysis perhaps since the groundbreaking works of Gerver (1969/2002) and Barik (1969), both concerning the output analysis of simultaneous interpreting. In Gerver (1969/2002), the term "discontinuity" rather than "error" was applied to describe "deviations from the input message found in the output" (as cited in Pöchhacker & Shlesinger, 2002b, p. 54). Likewise, from the perspective of interpreting product analysis, the more controversial work of Barik (1969), in addition to examining the differences regarding time factors in the simultaneous interpreting outputs of professional interpreters, students and amateurs, also investigated problems in the content aspects, which was defined as "the departures which arise in the translated version of a text in relation to the original version" (p. 23-24). Content problems in interpreting were further divided into omissions, additions and substitutions and errors (ibid, p. 83-99). It thus seems that earlier works on error or problems in interpreting were developed with much influence from the "source-target correspondence" in

translation theories (Pöchhacker, 2004, p. 141).

In addition to the adaptation of concepts of translation errors or shifts in analyzing the outputs of simultaneous interpreters in some earlier works, terms such as difficulties or problems have also been applied in process-oriented interpreting studies. The use of interpreting problems or difficulties might inherit from relevant concepts such as translation problems, which often appear in process-oriented translation research, especially in relation to discussions on translation strategies (e.g. Krings, 1986; Lörscher, 1991). In Lörscher (1991), a translation problem "denotes all those (linguistic) problems which a subject is faced with when performing a translation" (p. 94). Additionally, Lörscher assumes that "translation problems always lead to translation strategies" (ibid, p. 201). Likewise, in Gile (1995a), the term "performance problems" (p. 159) was introduced along with his Effort Models in interpreting. According to Gile, performance problems may happen at any stage during the process of interpreting and occur for both student and professional interpreters. Although without an official definition, performance problems seem to serve as the starting point for Gile's investigation of the Effort Model in interpretation. Problems such as hesitations, deviations, quality deterioration were discussed in the model and relevant triggers for the problems were investigated. Specifically, Jensen (1985) discussed error typologies in simultaneous interpreting, which also provides insight into the mental process of interpreters. Ng and Obana (1991), using the introspective method often applied in process-oriented translation research, investigated the process of interpreting and the specific problems in interpreting from Japanese to English. Agrifoglio (2004) also discussed the difficulties and failures in interpreting from a process/strategy perspective where errors were divided into meaning and expression failures.

Furthermore, problems or difficulties were also used in a general way to describe the challenges facing the development of the profession of interpreting (e.g. Biscaye, 1993) or in need analysis studies for interpreting and translation classroom research (e.g. D. Li, 2002).

In addition, studies such as Pan and Yan (2009, 2012) and Yan et al. (2010) investigated interpreting learners' perceived problems, i.e., problematic areas of their own interpreting output. These studies extended the connotative dimensions of problems

in interpreting classroom research.

Interestingly, in Chang and M. Wu (2009), the term "shifts" was applied when analyzing "discrepancies ... between the original use of address forms and the interpreter's rendition" (p. 172) in interpreted question and answer sessions in international conferences.

Apart from the general recognition of the interplay between problem analysis in Language Learning, Translation Studies and Interpreting Studies, there are certain efforts to distinguish translation or interpreting errors from those studied in other disciplines (e.g. Séguinot, 1990). Séguinot (1990) noted that translation errors, i.e., "errors that would not occur in spontaneous native language production" (p. 69), were of special interest to researchers of translation. Nevertheless, nowadays in an interpreting classroom, where students are "in most cases language students" (Zannirato, 2008), an integrative study of problems investigated in SLA, Translation Studies and Interpreting Studies becomes necessary if a comprehensive picture of interpreting learning is to be sketched.

In conclusion, on the one hand, there have been great efforts to define problem related terms such as errors, interlanguage and shifts in SLA and Translation Studies; on the other hand, although addressed often in Interpreting Studies, most of the cases the terms regarding errors or problems are borrowed from SLA or Translation Studies (e.g. Barik, 1969; Gerver, 1969/2002) or used directly with no elaboration (e.g. Ng & Obana, 1991; Biscaye, 1993; Gile, 1995a; Ficchi, 1999).

Based on a review of the literature in adjacent fields and studies concerning problems in the field of Interpreting Studies, the current study uses the term "interpreting problems" to include problems or errors reflected in both interpreting products and process, as well as problems concerning learners' needs in interpreting classrooms. Interpreting problems in this study are therefore defined as the observable inconsistencies between the produced interpreting outputs and the expected interpreting outputs or the difficulties in achieving the latter, regardless of binarism (see Yan et al., 2010; Pan & Yan, 2012). In particular, in interpreting learning, an interpreting problem refers to the observable inconsistency between the produced interpreting outputs of the learner and the expected interpreting outputs or the difficulties in achieving the latter

(based on the norms of the community of interpreting classrooms, see Wenger, 2006, for the notion of "community of practice"), regardless of binarism. This definition of interpreting problems has three features: 1) it is subject to the specific norms or expectations of interpreting in different contexts, for example, the norms of the interpreting classroom or the norms of the professional market; 2) it is descriptive as both binary and non-binary problems are given consideration; and 3) it is developmental as it changes with learners' gradual acquisition of interpreting competence with the aim to produce the expected interpreting outputs. The following section will elaborate on the relationship between interpreting competence and problems in interpreting learning.

2.1.1.2 Interpreting Competence and Problems in Interpreting Learning

The term competence is central to the connotation of interpreting problems. Pym's (1992) definition of translation errors is based on that of translational competence, and translation teaching is described as "the transfer of translational competence from teacher to student" or "the sum of communication acts by which translational non-binary errors are produced and converted into their opposite, namely translational knowledge" (p. 283). In short, the process of translation teaching can be regarded as the process of transferring translation errors into translational knowledge, i.e., the process of assisting students in their acquisition of translational competence. Likewise, interpreting competence, as the target of interpreting learning and teaching, forms the core of "the expected interpreting outputs" in the current definition of interpreting problems. The following section gives an account of the concept of interpreting competence and its relationship to problems in interpreting.

According to Chomsky (1965), the concepts of errors, competence and performance are interrelated. Competence is regarded as the knowledge of the correct or standard language use, the core for different performances. To develop competence therefore involves the abatement of errors and problems:

> Linguistic theory is concerned primarily with an ideal speaker-
> listener, in a completely homogenous speech community, who
> knows its language perfectly and is unaffected by such

grammatically irrelevant conditions as memory limitations, distractions, shifts of attention and interest, and errors (random or characteristic) in applying his knowledge of the language in actual performance ... To study actual linguistic performance, we must consider the interaction of a variety of factors, of which the underlying competence of the speaker-hearer is only one. In this respect, study of language is no different from empirical investigation of other complex phenomena. (p. 3-4)

Based on such interrelationships, Chomsky (1965) described competence as "the speaker-hearer's knowledge of his language" and performance as "the actual use of language in contract situations" (p. 4).

Likewise, when discussing translation competence, Schäffner and Adab (2000) described it as the collective term for the ability of different performances, including both the know-what and know-how of translation-related knowledge given the practical nature of translation:

The term *competence*, thus, acts as a superordinate, a cover term and summative concept for the overall performance ability which seems to be so difficult to define. It encompasses a number of different elements or abilities to do specific (detailed) things, which are in turn based on knowledge. This knowledge (i.e., declarative knowledge, *knowing what*) is applied on the basis of an evaluation of various factors affecting the translation situation, e.g. awareness of the communication situation, of the purpose of the (translational) activity, of the communicative partners, etc. (i.e., operative knowledge, *knowing why and how to*). The ability to make use of this knowledge and to apply it is linked to awareness, which could also be described as conscious decision-making or transfer competence. (p. x)

Interpreting competence, in a similar vein, can therefore be defined as the knowledge and skills one should have as a professional interpreter, which directs the performance of an interpreter or potential interpreter, in the reduction of interpreting problems, towards the norms of the professional community of interpreters. The professional community of interpreters can be compared to a "community of practice", i.e., a group "of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly" (Wenger, 2006, What are communities of practice, para. 2). As stated in Lave and Wenger (1991), norms of the community of practice are co-built by both new-comers and old-timers, and therefore, in an interpreting classroom context, both learners and trainers participate in the process of classroom norm construction. Consequently, the definition of interpreting competence is subject to the objectives of interpreting learning of both learners and trainers, which may vary in different training programs.

Nevertheless, existing definitions of interpreting competence in previous literature seem to favor the norms set up exclusively by professional interpreters or organizations of professional interpreters, and meanwhile tend to overlook the participation of learners' in the construction of interpreting competence. For example, Kalina and Köln (2000) defined the competence of a professional interpreter as "the competence to process texts within the scope of a bi- or multilingual communication situation with the aim of interlingual mediation" and "the capability of acting and performing in a situation characterized by externally determined constraints, such as the pressure of time, lack of semantic autonomy and the potential interference between closely connected processes of production and comprehension" (p. 5). The Canadian National Standard Guide for Community Interpreting Service (HIN, 2007) defines interpreting competence as "the ability to interpret a message from one language to the other in the applicable mode", "the ability to assess and comprehend the original message and render it in the target language without omissions, additions or distortions" as well as "the knowledge/awareness of the interpreter's own role in the interpreting encounter" (p. 15). More specifically, B. Wang (2007), based on the concepts of "translation competence" and "translator competence" defined in Kiraly (1995, p. 16), distinguishes "interpreting competence" from "interpreter competence", defining the former as "the

underlying system of knowledge and skills needed to be able to interpret" and the latter as "the underlying system of knowledge and skills, professional qualities and psycho-physiological qualities needed in working as an interpreter" (p. 47). It seems that the definitions of B. Wang (2007) have taken into consideration different communities of practice in interpreting learning with the notion of "interpreter competence" catering for a program aiming exclusively at cultivating professional interpreters, and the notion of "interpreting competence" with greater plasticity for programs cultivating interpreting or interpreting-related competence. In fact, as suggested in Pym (2001), excessive segmentation in academic disciplines did not take into consideration the actual needs of students and parents, or the reality of institutions and local markets, where the training of some compound talents, possibly referred to as "language service providers" (p. 21), instead of translators and interpreters in a traditional sense, are in great demand. Besides, studies concerning needs analysis in interpreting programs or courses suggest that not every student in interpreting training programs aims to becoming a professional interpreter, on the contrary, most students attended these programs or courses for the enhancement of language(s) or employment opportunities in language-related fields (Bao, 2004, 2008; H. Liu, 2007; Yan et al., 2010; Pan & Yan, 2012).

A study by Orozco and Hurtado Albir (2002), although concerning written translation, established an insightful model to measure translation competence in relation to translation problems, translation errors and general notions about translation, with the inclusion of learners' perspectives. In their study, translation problems refer to those students need to develop strategies to solve, while translation errors are those unsolved or not appropriately solved. The acquisition of translation competence is therefore measured by the observation of learner behaviors through the Translation Problems Instrument (TPI), the Translation Errors Instrument (TEI) and the Translation Notions Instrument (TNI) applied at the beginning, middle and the completion of training (ibid, p. 380). Furthermore, problems in the TPI include the linguistic problem, extra-linguistic problem, transfer problem and the pragmatic problem (ibid, p. 381), whereas TEI includes error types of "wrong meaning" and "no meaning" as opposed to "successful solutions" (ibid, p. 382). This study provided meaningful results about the acquisition of translation competence through the investigation of problems and errors

against students' knowledge of translation notions and has been a source of inspiration for this research.

Given the significance of interpreting and translation competence in the study of interpreting problems (e.g. Campbell, 1991; Pym, 1992; Orozco & Hurtado Albir, 2002), a review of studies on the construct of interpreting or translation competence can offer great insights into the latter.

There are generally two approaches to the conceptualization of translation competence, one is a minimalist approach as raised by Pym (2003) and the other is component-based (e.g. Campbell, 1991; PACTE, 2005). The former focuses on the specific core of translation activities while the latter tends to divide translation competence into several interrelated components. In the minimalist approach proposed by Pym (2003), translation competence is regarded as "the ability to generate a series of more than one viable target text (TT1, TT2 ... TTn) for a pertinent source text (ST)" and "the ability to select only one viable TT from this series, quickly and with justified confidence" (p. 489). Alternatively, according to PACTE (2005), translation competence can be made up of five sub-competencies, i.e., bilingual sub-competence, extralinguistic sub-competence, instrumental sub-competence, knowledge about translation sub-competence, and strategic sub-competence (PACTE, 2003, as cited in PACTE, 2005, p. 610). Campbell (1991), in proposing "a tentative developmental schema for translation competence" (p. 338), divided translation competence into three factors: lexical coding of meaning (measured by text length, lexical variety, average word length, words directly translated and content/function words), global target language competence (measured by tokens misspelt, words shifted, words omitted and more verbal) and lexical transfer competence (measured by mean lexical agreement, words shifted and words directly translated) (p. 335-336).

Adopting a component-based approach, Gile (2009) attempts to bridge the notions of translation and interpreting competence in the model where translation and interpreting competence denotes the training content and is compromised of the following:

1) Interpreters and translators need to have good passive knowledge

of their passive working languages;

2) Interpreters and translators need to have good command of their active working languages;

3) Interpreters and translators need to have sufficient knowledge of the themes and subject-matters addressed by the texts or speeches they translate;

4) Translators must have both declarative and procedural knowledge about Translation. (p. 8-10).

Similarly, in B. Wang (2007), interpreting competence, as a sub-competence of interpreter competence in his scheme, can be divided into the sub-components of language, knowledge and interpreting skills.

Conversely, Kalina and Köln (2000) focus primarily on the discussion of linguistic and psycholinguistic competence in processing interpreting tasks. They also mentioned the necessity of training performing competence in current interpreting programs.

Currently, there is a tendency to investigate interpreting competence differently from competence in other activities and according to different settings. Growing attention is also paid to different stages during the acquisition of interpreting competence. For example, Rosiers, Eyckmans and Bauwens (2011) investigated the differences between translation and interpreting students at the entry level of translation and interpreting training. Although differences were found concerning learners' anxiety levels and their self-perceived communication competence and language skills, no significant correlations were identified between these features and learners' sight translation performance. Also, Cai (2001) investigated the development of consecutive interpreting competence through the comparison of the performance of pre-training interpreting students, student interpreters and professional interpreters. It was found that differences existed among the three groups concerning particularly the variables of information, time, strategies and language.

Despite the various schemes of interpreting or translation competence, some core elements can be identified throughout different models, such as the language competence (cf. the global target language competence in Campbell, 1991; TPI in

Orozco & Hurtado Albir, 2002; the bilingual sub-competence in PACTE, 2005; the language component in B. Wang, 2007; the first two elements in Gile, 2009;), content knowledge competence (cf. the extralinguistic sub-competence in PACTE, 2005; B. Wang, 2007 and the knowledge component in Gile, 2009), transfer competence (cf. lexical coding of meaning and the lexical transfer competence in Campbell, 1991; TPI and TEI in Orozco & Hurtado Albir, 2002; the minimalist approach in Pym, 2003), interpreting or translation specific competence (cf. performing competence in Kalina & Köln, 2000; element four in Gile, 2009). Therefore, the study of the disparities between learners' performance and the ideal performance as underlined by competence in these core elements, i.e., problems analysis in interpreting learning, should highlight these relevant aspects. The following section will review the scope of interpreting problems investigated in previous literature.

2.1.2 Scope of Problem Analysis in Interpreting Learning

Problem analysis concerning interpreting learning can be found widely in studies of interpreting quality, performance analysis of professional and student interpreters, and studies regarding the interpreting or translation process. In addition, it is widely applied in schemes of interpreting accreditation tests and classroom assessment. This section will outline a review of existing schemes in the above mentioned fields.

2.1.2.1 Existing Models in Product-oriented Interpreting Studies

Problem analysis is closely related to quality and performance analysis in interpreting as the latter usually implies the "expectation" or "perfection", which is opposed to problems in interpreting (Grbić, 2008, p. 241-246). Despite the large amount of studies in this field, interpreting quality has always been a thorny area to address due to the lack of consensus among various parties of judgment involved (see Shlesinger, 1997; Pöchhacker, 2004, 2005). However, this review will only look into the existing models of quality and performance assessment as far as problem analysis of interpreting learning is concerned.

As one of the pioneering studies of interpreting quality, Bühler (1986) applied a survey study among professional interpreters on criteria concerning interpreting quality.

The criteria listed in the questionnaire were loosely divided into two categories: the linguistic (semantic) category (including native accent, fluency of delivery, logical cohesion of utterance, sense consistency with original message, completeness of interpretation, correct grammatical use, use of correct terminology and use of appropriate style) and the extra-linguistic (pragmatic) category (pleasant voice, thorough preparation of conference documents, endurance, poise, pleasant appearance, reliability, ability to work in a team and positive feedback from delegates) (ibid, p. 231, 233) (also see Schweda Nicholson, 1987, for a detailed theoretical discussion on the linguistic (semantic) and extra-linguistic (pragmatic) aspects of simultaneous interpreting). The study found that almost all linguistic criteria were ranked as highly important by the participants, whilst "reliability" was ranked the highest among all the extra-linguistic criteria (ibid, p. 233).

Many items in Bühler's (1986) questionnaire have been frequently used and discussed in later interpreting quality studies, although questionnaire subjects might differ (Gile, 1990; Marrone, 1993; Kopczynski, 1994a, 1994b; Kurz, 1989a, 1993, 1994, 2001; Moser, 1995, 1996; Pöchhacker, 2005; Chiaro & Nocella, 2004; Zwischenberger, 2010; Zwischenberger & Pöchhacker, 2010). For example, Kurz (1989, 1993, 1994, 1996) surveyed conference delegates instead of interpreters through the application of eight of the sixteen parameters from Bühler's questionnaire, using primarily the "linguistic (semantic) criteria" except for "use of appropriate style", which was changed into "pleasant voice" from the category of "extra-linguistic (pragmatic) criteria" (Kurz, 2001, p. 405-407). According to the comparison made in Kurz (2001), although interpreters in Bühler (1986) gave higher ratings on the significance of all eight quality parameters compared to the ratings given by conference delegates in Kurz (1989, 1993, 1994, 1996), most of the ratings were "parallel" except that interpreters "considered 'grammar' far more important than delegates did" (p. 406). Meanwhile, according to the results listed in Kurz (2001), both interpreters and delegates seemed to regard "sense consistency" as the most significant criteria in interpreting quality, followed by "logical cohesion" (p. 406).

Kopczynski (1994a), borrowing the definition of pragmatics in Austin (1962) and Searle (1969), as well as the questionnaire design of Bühler (1986), further investigated

the pragmatic aspect of quality, i.e., the contextual variables for quality, including factors such as the setting, the form and content of the message, the existing norms of interaction and interpretation of a speech community and the participants (p. 88-89). He looked specifically into the expected functions (content-related ones, i.e., rendering the general content of TL, rendering the detailed content of TL and terminological precision; and form-related ones, i.e., style, grammatical correctness of utterances, fluency of delivery, diction and voice qualities) of and the possible irritating factors (faulty terminology, ungrammatical sentences, stylistic mistakes, incomplete sentences, lack of fluency, poor diction, monotonous intonation, monotonous tempo, speeding up and slowing down, too general rendition of content and too detailed rendition of content) in conference interpreting among conference participants, including hosts, speakers and listeners (ibid, p. 92). Results of the study indicated that most of the participants regarded "rendition of detailed content" as the most important factor, followed by "terminological precision" and then "fluency" (ibid, p. 93). As for the irritants, "incorrect terminology" was ranked first, whereas speakers and receptors varied on their responses to the second and third irritants (ibid, p. 94). Likewise, participants from different professions held different opinions concerning these irritants (ibid).

Another study often cited on interpreting quality is that of Moser's (1995) where a questionnaire for standardized interviews among conference participants by interpreters from the International Association of Conference Interpreters (AIIC) was applied. The aim of the study was to find out the influence of individual characters of conference participants on their expected performance of simultaneous interpretation, including what might be considered irritating to them. Both open and closed questions were used. In the study, criteria concerning content and formal match were investigated. The content match included elements such as completeness of rendition, terminological accuracy and faithfulness to meaning (cf. linguistic (semantic) criteria in Bühler, 1986), while the formal match included those such as synchronicity, rhetorical skills and voice (cf. extra-linguistic (pragmatic) criteria in Bühler, 1986). The study found that many of the "principle expectations", such as clarity of expression, completeness of rendition, accurate terminology, etc. remained "constant" for different conference participants (ibid, p. 23). Additionally, long pauses and lagging behind the original were chosen by

many and ranked high in the list of irritations for participants (ibid, p. 19).

Chiaro and Nocella's (2004) study, where the innovative application of the World Wide Web was employed, investigated interpreters' perceptions of linguistic and non-linguistic factors affecting quality through the application of the questionnaire items in Bühler (1986) but modified them into rank order scales. The study found that consistency with the original, completeness of information and logical cohesion in the linguistic criteria group were ranked as the three most important factors, whereas concentration was ranked as the first in the extra-linguistic criteria, followed by preparation of conference documents and ability to work in a team.

More recently, Zwischenberger and Pöchhacker (2010), applying 11 output-related items from Bühler's (1986) questionnaire in their web-based survey, investigated AIIC interpreters' perceptions of quality and role. The 11 quality parameters were divided into content-related (i.e., sense consistency with the original, logical cohesion and completeness), form-related (i.e., correct terminology, correct grammar and appropriate style) and delivery-related ones (i.e., fluency of delivery, lively intonation, native accent and pleasant voice) (Zwischenberger, 2010, p. 135). Findings of the study suggest that the top quality parameters outlined by Bühler (1986) remained important, i.e., sense consistency with the original and logical cohesion, both content-related. However, compared to Bühler (1986), there was a rise of significance attributed to form-related parameters such as correct terminology, correct grammar and appropriate style. In addition, fluency of delivery was regarded as the most important among all the delivery related parameters. Interpreters' perceptions concerning these parameters were influenced by specific interpreting settings or meeting types. Significant difference was found in interpreters' assessment of quality between a simultaneous interpreting with lively intonation and that with monotonous intonation, indicating the importance of intonation as a quality parameter. The study also explored the influence of interpreters' socio-demographic and professional background variables (i.e., gender, A language, age and working experience and education) in their perceptions of an interpreters' role, and significant differences were found concerning many of these variables.

A follow-up study by Zwischenberger (2010) compared the questionnaire findings concerning quality criteria of professional interpreters in AIIC and those in the German

Association of Conference Interpreters (VKD). The study indicates that both AIIC members and VKD members held the content-orientated quality criteria in assessing simultaneous interpreting. Both groups were similar in their perceptions of most of the quality parameters except for that of correct grammar, which gained a significantly higher rating from the AIIC interpreters. This finding suggests a stricter standard of the AIIC interpreters on the interpreted language, which is in accordance with the organization's professional rule of interpreting only into the A language.

As well as survey studies on quality, analysis on interpreting outputs has also been popular in product-oriented interpreting studies (Chiaro & Nocella, 2004). As mentioned earlier, a pioneering study by Barik (1969) concerning error analysis in product-oriented interpreter studies, looked into the meaning departures between the ST and TT as well as time factors. Time factors investigated in the study included pauses and time lag between the ST and TT, whereas content analysis included that on omissions, additions, substitutions and errors, as well as translation disruptions. The scheme of the latter, i.e., content analysis, discussed separately in Barik (1971, 1994) (see Table 2.1), has been applied and cited often in studies on interpreting problems (e.g. Cokely, 1986; Altman, 1994; H. Kim, 1994; T. Wang, 2010).

Table 2.1. Coding scheme of content analysis in Barik (1969, 1971, 1994) (Based on Barik, 1994, p. 122-133)

Omissions	Additions	Submissions and Errors
M1: Skipping omission	A1: Qualifier addition	E1: Mild semantic error
M2: Comprehension omission	A2: Elaboration addition	E2: Gross semantic error
M3: Delay omission	A3: Relationship addition	E3: Mild phrasing change
M4: Compounding omission	A4: Closure addition	E4: Substantial phrasing change
		E5: Gross phrasing change

Another influential study by Gerver (1971) carried out an experiment to examine the influence of noise on the performance of simultaneous conference interpreters. The verbal and temporal factors of the interpreters' output were investigated. The

effectiveness of consecutive interpreting and simultaneous interpreting was also compared. Unlike Barik (1969), Gerver calculated the number of correct words as well as the words omitted, errors of commission and corrections in the interpreting output. Also, Gerver adopts the scales outlined in Carroll (1966) for machine translation in the evaluation of the interpreted content, i.e., the scale of intelligibility and the scale of informativeness. As for the temporal factors, the calculation of pauses and time distribution was applied. The intelligibility and informativeness scales, being introduced into interpreting studies by Gerver, have later been constantly applied in studies on interpreting performance analysis (e.g. Anderson, 1979, 1994).

Apart from the application of scales adopted from machine translation studies, other methods have also been applied for content analysis of interpreting outputs, including the comparison of idea units (e.g. M. Liu, 2001), propositional analysis (e.g. Dillinger, 1990, 1994; Lambert, 1984, 1989; Chang, 2005; Chang & Schallert, 2007; Albl-Mikasa, 2008) and translation key (information) analysis (e.g. Sherwood, 2000).

Many other models for comparing ST and TT in interpreting have also been proposed. In Dam (2001), lexical similarity and dissimilarity at the formal level and omissions and additions at the meaning level were both examined. Likewise, Falbo (1998) studied both content problems and form problems in simultaneous interpreting outputs.

Clifford (2001), introducing discourse theory into his performance-based assessment scheme, proposed a rubric to measure interpreter's competence concerning deixis, modality and speech acts. In a similar vein, Lindquist (2005) put forward an MRC model based on discourse theory for the analysis of interpreters' performance. The basic parameters in his model included meaning (M), rhetorical value (R) and clarity (C). Meanwhile, the deviations between ST and TT were investigated through the coding of problem types of omissions, additions, lexical shift, grammatical shift, syntactical shift, coherency (hesitations, false-starts and any disfluency), pronunciation error and the unintelligible (ibid). In another landmark study, Setton (1997) proposed a pragmatic model of simultaneous interpreting based on theoretical models of relevance theory, cognitive semantics, mental models and speech-act theory. Many aspects of interpreting at the structure level, context level and processing level were analyzed.

Furthermore, Jimenez-Crespo (2011), based on the comparison between a corpus of the original and localized Spanish corporate websites, analyzed the inadequacies in the latter. An error typology divided into the lexical, syntactic, stylistic, typographic and pragmatic levels was proposed from the bottom-up analysis of the corpora data.

Borrowing heavily from the research design of Barik (1969) and especially Gerver (1971), and incorporating the questionnaire scheme of Bühler (1986), Pio (2003) applied an error-based performance analysis scheme in her study on the relation between delivery rate and quality in simultaneous interpreting in terms of meaning (linguistic deviations) and fluency (non-linguistic deviations). Meaning discrepancies between the ST and TT in the study were examined by looking at errors including omissions, substitutions, additions and logical-time sequence errors, where deliberate use of these methods as strategies by the interpreters was explained and excluded from the examination (ibid). Meanwhile, interpreting fluency was examined by pronunciation/phonation errors; unfilled pauses; filled pauses (or hesitations), repetitions, corrections and false starts; and the ear-voice span (ibid). Each of these factors was provided with a separate definition. The study found that omission was most subjective to ST delivery speed and students produced more filled pauses under both fast and slow delivery rate than professional interpreters. This study put forward a detailed and clear model for the examination of meaning- and fluency-related problems in simultaneous interpreting.

Chang and Schallert's study (2007), in investigating the impact of directionality on the performance of simultaneous interpreters, analyzed interpreting errors including "language-use errors (grammatical and lexical errors)" and "presentation errors (self-corrections and incomplete sentences)" (p. 161), in addition to a propositional analysis of the content (including the analysis of omitted, added and erroneous propositions).

Recently, a growing number of studies on delivery or presentation specific factors and their importance in the overall interpreting quality or performance have been undertaken (e.g. Shlesinger, 1994; Mead, 2000, 2002, 2005; Ahrens, 2005; Kellett Bidoli, 2005; Pradas Macías, 2006; Holub, 2010; Rennert, 2010). As stated by Gile (2009), presentational factors play a very special role in Translation quality assessment:

Good voice and pleasant delivery, pleasant style and good layout of a printed page can occasionally do more toward convincing a listener or reader than the quality of the idea that is formulated or the information that is delivered. Conversely, good content is weakened by poor style in writing, unusual or inaccurate terminology, a poor voice or poor delivery of a speech. (p. 38)

The method of temporal pattern analysis was introduced into the study of simultaneous interpreting by Goldman-Eisler (1967). In that study, Goldman-Eisler compared the temporal patterns in terms of "rhythm" (measured by the pattern relationship between hesitation and fluent periods) in spontaneous speech, reading aloud and simultaneous interpreting (p. 125).

In particular, Shlesinger (1994) studied intonation, its role in "creating meaning" (p. 225) and its relationship to grammar. In her model of analysis, she investigated the "salient features of interpretational intonation", including tonality (distribution of information units), tonicity (pitch prominence), tone (falling or rising pitches) and prosody (duration and speed) (ibid, p. 228). Ahrens (2005) discussed specifically prosody analysis in interpreting. Following Barik (1969) and using a computer-aided method, the study calculated the speech rates and rates of articulation of the ST and TT. In addition, the computer program *PRAAT* was applied to analyze the segmentation of intonation units. Furthermore, the study of Holub (2010) suggests that monotonous intonation had an impact on the audiences' comprehension of the interpreting output and influenced their assessment of the overall quality although all the other variables of the interpretation were controlled.

Rennert's study (2010) demonstrated that perceived disfluencies, including hesitations, vowel lengthening and repairs, could relate to the user's assessment of interpreting accuracy and the interpreter's self-assessed comprehension and performance. Pradas Macías (2006) studied the percentage of silent pauses in relation to the rating of quality of simultaneous interpreting. The quality parameters included overall quality, impression of professionalism, impression of reliability, quality of original speech, accent, voice, logical cohesion, correct rendition of sense,

completeness, terminology, style, diction, intonation and fluency (ibid, p. 35). The study indicates that silent pauses form a negative factor for the evaluation of fluency and other quality parameters.

Mead (2000) studied pauses, "as an index of fluency" (p. 89), in a consecutive interpreting experiment with student subjects. In his analysis scheme, pauses were divided into silent pauses and filled pauses (the latter including false starts and repetitions, as well as mixed pauses, i.e., a mix of silent and filled pauses), the time of both were calculated (ibid). Students' self-reported reasons for making those pauses were explored. The study found significant differences between students' interpreting into their A and B languages. Relevant factors related to the disfluency problems, including learners' weakness concerning specific items of expression was worth noticing (ibid). In Mead (2005), a scheme of fluency analysis in interpreting was proposed, including the analysis of temporal variables such as speech rate, duration of pauses, phonation/time ratio, articulation rate and mean length of run. He further stated that pause length, pause position and interpreters' retrospective comments should be taken into consideration collectively. In contrast, Tissi (2000), applying an analysis scheme introduced in discourse analysis, studied both silent pauses and disfluencies in simultaneous interpretation. In her scheme of analysis, disfluencies and filled pauses were both treated as filled pauses, including vocalized hesitations, vowel and consonant lengthening, interruptions, repeats, restructuring and false starts. Furthermore, Petite (2005) studied repair based on the taxonomy of Levelt (1983) in a corpus of simultaneous interpreting of professional interpreters. Repairs analyzed in the study included post-articulatory appropriateness repairs, post-articulatory error repairs, post-articulatory different repairs and mid-articulatory repairs. A more recent study undertaken by Bendazzoli, Sandrelli and Russo (2011) studied disfluencies in simultaneous interpreting in a corpus-based investigation. Disfluencies in the study included mispronounced and truncated words. The features, types and possible cause of these disfluency problems were further explored.

Apart from the specific attention paid to pauses concerning interpreting delivery, the difficulty in rendering numbers has also been addressed frequently in the analysis of interpreting outputs (e.g. Alessandrini, 1990; Mazza, 2001; Pellatt, 2006; Pinochi,

2009). For example, Alessandrini (1990) conducted an experiment with professional interpreters on their rendition of numbers in consecutive interpreting. Errors concerning numbers were grouped into omissions, errors and approximation, whereas errors in the interpreted text were categorized as omissions, semantic errors and morphosyntactic errors (ibid, p. 78). The study demonstrated that it was possible to examine the impact of errors regarding numbers in interpreted texts. Mazza (2001) investigated the problems related to number reproduction in simultaneous interpreting between Italian and English and through an experiment with student interpreters. Errors in rendering numbers were further classified into omissions, approximations, lexical mistakes, syntactical mistakes, phonological mistakes and other mistakes (ibid, p. 94). Errors of omission in numbers were found to be the most common (ibid). Pinocchi (2009), duplicating the study of Mazza (2001) with the language pair of German and English and the added error type, i.e., transposition of the digits (p. 43-44), produced similar results and concluded that the problem of omission in interpreting is independent of language. A further example of difficulties in interpreting numbers between Chinese and English can be found in Pellatt (2006).

In addition to the output-related empirical studies such as survey studies on interpreting quality and performance analysis of experimental data, some theoretical discussions regarding interpreting output or quality constructs have also contributed greatly in sketching the scope of interpreting problem analysis. As far as interpreting types are concerned, whilst there are some arguments for differentiating quality criteria for different types of interpreting, for example, between consecutive and simultaneous interpreting (e.g. C. Li, 2006), between professional interpreting and student interpreting (e.g. Riccardi, 2002a), or between interpreting into the A language and interpreting into the B language (e.g. Campell, 1998), the study of Pöchhacker (2001) raises the point that there was some "common ground" for quality of interpreting of different types such as conference interpreting and community interpreting (p. 423).

Riccardi (2002a) stated that quality analysis for professional interpreting should follow the "macrocriteria" of equivalence, accuracy, appropriateness and usability (p. 118-120), whereas evaluation for student interpreting should follow the "microcriteria" of phonological deviations, prosody deviations, production deviations (false starts and

filling elements), pauses, lexical deviations (of common and technical terms), morphosyntactic deviations, logical/semantic deviations, omissions, additions, reformulations, register, technique, successful solutions, overall performance, eye contact, hand control and/or gesticulations and/or posture, as well as incomplete sentences (ibid, p. 121-123).

Based on a review of previous studies, Kalina (2002) provided a theoretical framework for the analysis of quality of interpreters' output in both simultaneous and consecutive interpreting. The model of Kalina consisted of three layers with a number of parameters at each layer (see Table 2.2).

Table 2.2. Dimensions of interpreters' output in Kalina (2002, p. 125).

Semantic Content	Linguistic Performance	Presentation
Consistency	Grammatical correctness	Voice quality
Logic, coherence	Adherence to TL norms	Articulation
Completeness	Comprehensibility	Public speaking
Accurateness	Stylistic adequacy	Discipline
Unambiguity	Terminological adequacy	Simultaneity
Clarity	Discretion	Technical mastery
Reliability	Lack of disturbance	Conduct

Furthermore, Riccardi (2002b) provided a more comprehensive scheme for the analysis of interpreting output with a general view of interpreting in both didactic and research contexts, which is by far the most comprehensive (see Table 2.3). Nevertheless, the parameters under the category of "interpretation" in the table primarily relate to the process of interpreting rather than its product (see the next section).

Table 2.3. Descriptive parameters for interpreted text (Based on Riccardi, 2002b, p. 23-26)

1. Delivery	2. Language	3. Content	4. Interpretation
1) Pronunciation and phonation 2) Output (production speed and rhythm) 3) Prosody (word, clause and sentence accent as well as intonation) 4) Non-fluencies a. Filled pauses, coughs, glottal clicks, audible breathings b. False starts and repetitions 5) Pauses	1) Standard lexicon 2) Technical lexicon 3) Morphosyntax and syntax 4) Calques 5) Internationalisms (transliteration)	1) Changes (substitution, synthesis or paraphrase); 2) Omissions 3) Additions 4) Logical links 5) Register	1) Reformulation 2) Anticipation 3) Décalage 4) Technique 5) Overall performance

A comparison of the scheme in Kalina (2002) and that in Riccardi (2002b) suggests some shared parameters both at the macro- and micro-level. For example, the macro-level parameters of semantic content, linguistic performance and presentation in Kalina (2002) are comparable to those of content, language and delivery in Riccardi (2002b) respectively. Most of the micro-level parameters can be found in many empirical studies which have been reviewed in an earlier part of this section.

In conclusion, both the empirical studies and theoretical modeling in product-oriented interpreting studies have provided useful insights into the schematizing of problems in interpreting outputs. So far, theoretical discussions regarding interpreting output analysis suggest three parameters at the macro-level: the content/meaning, language/form and presentation/delivery levels. These three macro-level parameters are applicable for grouping parameters in many empirical studies of interpreting quality surveys and performance analysis. Studies with interpreting performance analysis have

helped to unveil the composition of the three macro-level parameters and provided analytical schemes for micro-level parameters such as pauses, disfluencies and numeric errors. The schematization of the parameters at different levels makes it possible to use computer-aided programs and methods to analyze large corpora of empirical data in a systematic way (e.g. Bowker, 2001; Lindquist, 2005; Fernández-Silva & Kerremans, 2011; Hassani, 2011; Jimenez-Crespo, 2011). By doing this, a more objective modeling for the study of interpreting outputs can be seen (e.g. Riccardi, 2002b). However, caution should be exercised in the application of these models as most of the empirical and theoretical studies mentioned in this section concern simultaneous interpreting only (except for Mead, 2000; Kalina, 2002; Riccardi, 2002b). In general, consecutive interpreting has not been addressed frequently in product-oriented interpreting studies as a whole (see Kalina, 2002). Furthermore, the analysis of interpreting outputs alone provides only one side of the story. It needs to be compared to the investigation of interpreting process to gain a full dimension of the activity. The next section will review existing models relevant to problem analysis in process-oriented interpreting studies.

2.1.2.2 Existing Models in Process-oriented Interpreting Studies

Many models relevant to problem analysis in process-oriented interpreting studies overlap with those in product-oriented interpreting studies discussed in the previous section, especially those regarding the temporal factors in simultaneous interpreting (e.g. Goldman-Eisler, 1967; Gerver, 1971; Tissi, 2000; Petite, 2005). Nevertheless, there are a number of models, although smaller compared to those in the previous section, which contribute specifically to the process of interpreting.

To start with, Gile (1995a, 2009) put forward the effort models in translation and interpreting and listed problems relevant to the models, which have been applied in numerous studies and continues to remain influential in the field of interpreting research (see Hansen, Chesterman, & Gerzymisch-Arbogast, 2008). Gile (1995a) notes that problems can occur in the interpreting performance of both professional and student interpreters, which may be triggered by any failure of the processing capacity in his Effort Models for interpreting (both simultaneous interpreting and consecutive interpreting). According to him, possible problem triggers in interpreting included an

increase in processing capacity requirements (e.g. high density of the speech; external factors such as deterioration of the sound quality, technical terms, strong accents, incorrect grammar and lexical usage, unusual linguistic style and reasoning style; unknown names; saturation; etc.) or speech segments with signal vulnerability (e.g. names, numbers and acronyms) (Gile, 1995a, p. 172-174; Gile, 2009, 192-194). In addition, Gile (2009) discussed the "language-specificity related problems" in speech perception and production (e.g. differences in the perceptions of words, grammatical redundancies, syntactic structures and sociolinguistic aspects), as well as cultural-specific difficulties (p. 194-200). The speaker factor was also taken into consideration (ibid). As mentioned by Gile (1995a), "processing capacity problems many result in two types of adverse phenomena: deterioration of the *content* of the target-language speech (errors, omissions, etc.), or deterioration of its *delivery* (linguistic output, voice, intonation, etc.)" (p. 174-175, *italics* in the original). Therefore, linguistic and non-linguistic anticipation becomes very important for interpreters in simultaneous interpreting in particular.

Gile (1995a, 2009) also provided a comprehensive scheme for tactics to combat problems in simultaneous interpreting, which is applicable for consecutive interpreting with a few modifications (see Table 2.4).

Table 2.4. Tactics against problems in simultaneous interpreting (Based on Gile, 1995a, p. 192-206; Gile 2009, p. 201-211)

1. Comprehension tactics	2. Preventive tactics	3. Reformulation tactics
1) Delaying the response 2) Reconstructing the segment with the help of the context 3) Using the boothmate's help* 4) Consulting resources in the booth	1) Taking notes 2) Lengthening or shortening the Ear-Voice Span 3) Segmentation and unloading of short-term memory 4) Changing the order of elements in an enumeration*	1) Delaying the response 2) Using the boothmate's help* 3) Consulting documents in the booth 4) Replacing a segment with a superordinate term or a more general speech segment 5) Explaining or paraphrasing 6) Reproducing the sound heard in the source-language speech 7) "Instant naturalization" 8) Transcoding 9) Form-based interpreting 10) Informing listeners of a problem* 11) Referring delegates to another information source 12) Omitting the content of a speech segment 13) "Parallel" reformulation 14) Switching off the microphone

* Those marked with asterisks are not applicable for consecutive interpreting according to Gile (1995a, 2009). Also, the note-taking tactics are for consecutive interpreting in particular.

Many of these tactics listed in the table to be applied against potential interpreting problems are closely related to the parameters listed in the previous section concerning

the analysis of interpreting outputs at the content/meaning, language/form and presentation/delivery levels, such as omission, addition, reformulation of information, the production of awkward linguistic expressions (e.g. reproducing the sound heard in the source-language speech), or even some presentation flaws (e.g. pauses due to consultation of resources and boothmate's help, or the time when interpreters switch off the microphone under extreme adverse conditions).

Kalina (2002), as well as proposing a model of output analysis of interpreting quality, also listed factors that might affect quality from a process-oriented perspective. The set of factors can be broadly divided into pre-process prerequisites, peri-process conditions, in-process requirements and post-process efforts, which are similar to the extra-linguistic parameters in Bühler's (1986) questionnaire and those discussed in Schweda Nicholson (1987) (also see Kalina, 2005).

Donato (2003), based on the model in Gile (1995a), proposed an analysis scheme for data gathered from an experiment with student interpreters in simultaneous interpreting (see Table 2.5). The sub-types under the category of reformulation strategies, such as morphosyntacitic reformulation, synthesis and expansion sound very similar to terms such as inconsistency, omission and addition in the content category in models of product-oriented interpreting studies.

Table 2.5. Descriptive criteria of strategies in simultaneous interpreting in Donanto (2003)

1. Comprehension Strategies	2. Reformulation Strategies	3. Emergency Strategies
1) Stalling by using neutral material 2) Anticipation 3) Time lag	1) Morphosyntactic reformulation a. Morphosyntactic transformations b. Syntactic segmentation c. Least-commitment strategy d. Changing the order of phrases or elements of other type within the clause 2) Synthesis a. Generalization b. Simplification c. Deletion 3) Expansion a. Explanatory additions b. Additions to maintain coherence c. Repetition d. Paraphrase	1) Transcoding 2) Approximation 3) Evasion 4) Substitution

Many empirical studies were devoted to the mapping of coping tactics or strategies in interpreting. For example, Kohn and Kalina (1996), based on the analysis professional conference interpreting data and the interpreters' retrospective comments, identified strategies such as omissions, completion, chunking and deletion. The study provided a good example for empirical analysis of interpreting strategies. Ng and Obana (1991) also applied the method of introspection in their study of problems regarding interpreting by student interpreters. The interpreting was done sentence by sentence, followed by a retrospective report of the students. The study found correlations between distortion of the message and students' problems with structure, argument, lexical items or the combination of these problems. Al-Khanji, El-Shiyab and Hussein (2000) studied

the use of compensation strategies in simultaneous interpreting of professional interpreters. After analyzing the TT in relation to the ST, the researcher identified 234 instances of compensation strategies, among which, those used most frequently were skipping, approximation, filtering, comprehension omissions and substitution. Furthermore, Chang (2005) conducted retrospective interviews with the interpreters to investigate simultaneous interpreting strategies in relation to the propositional and error analysis of interpreters' interpreting products. Strategies found in the study included anticipation, visualization, selection of important messages, omission, generalization, etc.

Although Riccardi (2005) notes that there are possible ways of grouping strategy models in a general way regardless of modes or types of interpreting, it has been popular to compare strategies used in interpreting of different modes or in different conditions. In a study by Agrifoglio (2004), constraints and failures were compared between sight translation, consecutive and simultaneous interpreting through an experiment with professional interpreters. The study found that meaning failures occurred comparatively more frequently than expression failures in consecutive interpreting and sight translation, whereas the opposite is true for simultaneous interpreting. Bartłomiejczyk (2006), through the analysis of retrospective remarks of student interpreters in simultaneous interpreting, identified 21 interpreting strategies such as addition, anticipation, approximation, changing order, compression, delaying response, inferencing, no repair, omission, parallel reformulation, paraphrase, personal associations, repair and reproduction (p. 164-165). The study found that inferencing was used most often when interpreting into students' A language, and approximation when interpreting into their B language. Yagi (2000) proposed a set of schemes to analyze styles of simultaneous interpreting, which included the measurement of periodicity and discourse development. The performance of novice and professional interpreters as well as shadowers was compared and represented by graphics. Van Besien and Meouleman (2008) also examined styles in simultaneous interpreting and found style differences between two professional interpreters based on the analysis of their application of global (presentation, additions and omissions) and local strategies (e.g. transcoding and backtracking, anticipation, use of pauses, etc.). The resulted differences in the

interpreted products included a "lean" and an "abundant" version (p. 135). Style differences concerning strategies in dealing with speakers' errors and repairs were also found in a corpus study of Van Besien and Meouleman (2004). Furthermore, Meuleman and Van Besien (2009) studied the strategies applied by professional interpreters in simultaneous interpreting under extreme speech conditions such as syntactically complex sentences and high speed of delivery. The study found that segmentation was more often used than tailing when coping with complex sentences. The opposite was found when the delivery speed is high.

As for single strategies studied in process-oriented interpreting studies, omission may be regarded as one of the most often addressed. For example, Napier (2004) provided a comprehensive taxonomy of omissions based on a review of studies treating omissions as both errors and strategies. According to the scheme, omissions were divided into five general categories, i.e., conscious strategic omissions, conscious intentional omissions, conscious unintentional omissions, conscious receptive omissions and unconscious omissions (ibid, p. 125). The study found that unconscious omissions were narrowly followed by conscious strategic omissions based on data gained from an experiment of sign language interpreting by professional interpreters and retrospective interviews with them. Additionally, Pym (2008) studied omissions in relation to contextualization, communication aims, communication risks and communication strategy. Omissions in Pym's study were classified into low risk and high risk ones. The study indicates that decision-making in interpreting requires both "cognitive resources" and "contextualization" (ibid, p. 97). Y. Wang (2008) constructed a corpus of simultaneous interpreting of professional interpreters between Cantonese and English. She analyzed the compression strategy in the corpus in particular. Compression strategy in the study was classified into the categories of syllabic compression, lexical compression, syntactic compression, semantic compression, situational compression and pragmatic compression. The study found that the application of compression strategy may be influenced by situations and contexts, textual inferences, delivery rate of the speaker, as well as delivery rate, processing capacity and the professional experience of the interpreter (ibid, p. 154).

Ficchi's (1999) study is worthy of note as it analyzed student performance in

consecutive interpreting at different learning phases. The study listed mistakes in student performance according to the process of listening, note-taking and message delivery. The researcher-generated list included omissions (meaning exclusion of parts of the text), hesitation phenomena (false starts, repetitions, self-corrections and rephrasing), faux-sens (incorrect reproduction of the original text, incorrect reproduction of verb tense, incoherence and lack of cohesion), contre-sens, target language mistakes (grammar mistakes, awkward use of language due to source language influence, errors of translation, incorrect concordance between subject and verb or adjective and noun), pauses (both silent and filled ones, which "exceptionally slowed down the rate of presentation and betrayed hesitation and uncertainty") and unfinished sentences (p. 202, 213). The study found that pauses remained the top mistake, though each mistake has experienced a substantial decrease throughout the tests given to students at three stages. Although the mistake categories seem to overlap and be somewhat blurred, the study ascertained the possibility for learners to learn consecutive interpreting through an autonomous approach.

Based on the previous review, it can be found that the exploration of strategies to settle problems in the process of interpreting have, to a great extent, furthered the dimension of problem analysis in interpreting. On the one hand, most of the problem triggers in the interpreting process can be grouped according to the three-level scheme in product-oriented interpreting studies, i.e., the scheme that consists of the content/meaning, language/form and presentation/delivery levels. On the other hand, many strategies adopted by interpreters in the process of interpreting share the same terms with error analysis in product-oriented interpreting studies, such as addition and omission (e.g. Napier, 2004; Pym, 2008; Y. Wang, 2008). Therefore, caution should be exercised when using these terms in a problem analysis model. Similar to studies cited in the previous section, many of the process-oriented interpreting studies are about simultaneous interpreting and, therefore, generalization of the results for consecutive interpreting should be undertaken with caution (see Agrifoglio, 2004; Riccardi, 2005). Finally, there has been a growing application of corpus-based analysis of interpreting strategies and its extension to norm-based interpreting studies (see Setton, 2011), which are to be reviewed in more detail in the next section.

2.1.2.3 Existing Models in Norm-Based Interpreting Studies

In addition to studies on interpreting strategies, the investigation of interpreting norms, especially the corpus-based study of interpreting universals or the "interpretese" (Shlesinger, 2008, p. 237), has gained increasing prevalence in the last two decades.

Studies on interpreting norms have borrowed greatly from the study of Translation Norms, which was put forward by Toury (1978). According to Toury (1995), norms exist in almost every social activity between rules and idiosyncrasies:

> Along the **temporal axis**, each type of constraint may, and often does move into its neighbouring domain(s) through processes of rise and decline. Thus, mere whims may catch on and become more and more normative, and norms can gain so much validity that, for all practical purposes, they become as binding as rules; or the other way around, of course. Shifts of validity and force often have to do with changes of *status* within a society. In fact, they can always be described in connection with the notion of norm, especially since, as the process goes on, they are likely to cross its realm, i.e., actually become norms. The other two types of constraints may even be redefined in terms of norms: rules as "[more] objective", idiosyncrasies as "[more] subjective [or: less inter-subjective]" norms. (p. 54, highlights in the original)

Toury (1995) stated that "adequacy" and "acceptability" were the two initial norms for translation as a norm-governed activity (p. 57). He further classified translational norms into "preliminary" and "operational" ones (ibid, p. 58).

The discussion relating to translational norms has been continued as a very important theme in Translation Studies (e.g. Toury, 1998; Schäffner, 1998, 1999a, 1999b; Chesterman, 1999; Hermans, 1999; Pym, 1999; also see Pym, Shlesinger, & Simeoni, 2008). Furthermore, the notion of Translational Norms and Descriptive Translation Theories (see Toury, 1995) stimulated the investigation of Translation Universals (e.g. Baker, 1993; Mauranen & Kujamäki, 2004) and Corpus-based

Translation Studies (see Baker, 1995; Halverson, 1998; Laviosa, 1998, 2002; Munday, 1998; Tymoczko, 1998; Andeman & Rogers, 2007; Beeby, Rodríguez Inés, & Sánchez-Gijón, 2009). In a landmark work concerning corpus-based study of translation universals, Baker (1993) put forward five universals in translation, i.e., explicitation, disambiguation and simplification, grammaticality, avoidance of repetitions in ST and exaggeration (p. 243-244). Following this pioneering study, there have been numerous studies on each or all of the universals (see Mauranen & Kujamäki, 2004). House (2008), based on a review of relevant studies, put translation universals within a functional linguistic framework (see Figure 2.1). Translation universals such as explicitation, simplification, disambiguation, standardization and "leveling out" were put under the ideational metafunction group, and those of avoidance of repetition and over/under-representation of ST/TT items under the textual metafunction group.

Figure 2.1. House' mapping for Universals in Translation (cited from House, 2008, p. 15).

Universals in Translation ($L_1 \to L_1$)?

linguistic sources
(L_1 / L_1)

other sources?

obligatory
linguistic
choices

optional
linguistic
choices

translator
variables
(who)

situational
variables
(where,
when)

translation
task
variables
(why,
who for)

ideational
metafunction

interpersonal
metafunction

textual
metafunction

construing of
experiential world
"processes" and
their relation to
one another

speech functions
and roles
• mood
• modality

given/new – theme/rheme
• reference ("phora")
• ellipsis
• conjunction
• lexical cohesion

• explicitation?
• simplification?
• disambiguation?
• standardisation?
• "levelling out"?

• avoidance of repetition?
• over-representation of
  target and/or source items?
• under-representation of
  source and/or target items?

More specifically, universals in learner translations have been explored in both Kujamäki (2004) and Jääskeläinen (2004). In Kujamäki (2004), students' "(semi)professional self-understanding" of translation theory and L1 (first language) competence were explored through the investigation of the "unique items", which is specific to the TL, in their translated texts (p. 188). Students' translated and non-translated language outputs were compared. The study found a certain level of under-representation of these terms in students' translated texts and concluded that such a translation universal existed in the translation of students even when the ST posed no specific difficulty for them. Meanwhile, Jääskeläinen (2004), through a small scale

research project, found that the avoidance of repetition tended to appear in student translations, although not in a very systematic way, given that students have not "internalized the unspoken 'norms' of translation which professionals might share" (p. 213).

With the influence of norm-related investigations in Translation Studies, norms were introduced into interpreting by Shlesinger (1989) and Harris (1990) and further explored by many other scholars (e.g. Schjoldager, 1995; Gile, 1998a; Garzone, 2002; Marzocchi, 2005; Diriker, 2008). Schjoldager's (1995) study proposed a model to analyze simultaneous interpreting data. The study put forward a methodological framework to investigate the interplay among competence, performance and norms:

(1) Suggestion of theoretical models (competence).

(2) Source-target comparison (performance).

(3) Reconstruction of guiding principles in the translational process (norms). (p. 80)

The theoretical model of translational relationships applied in the study included five types of relationships: repetition, permutation, addition, deletion and substitution (including equivalent substitution, paraphrastic substation, specifying substation, generalizing substitution, overlapping substitution and substation proper) (p. 81-82).

In addition, many of the questions listed in Diriker (2008) for further exploration of interpreting norms are closely related to the current study:

1) What kinds of presence and performance are deemed praiseworthy/correct/ethical in Simultaneous Conference Interpreting (SCI)?

2) Do interpreters' decisions comply with and reinforce the norms "on the air", or are there divergences between what is *said* and what is *done*?

3) (How) do the presence and performance of interpreters influence the immediate and the broader social context(s)?

4) (How) do the presence and performance of interpreters influence the production and effect of the original speech?

5) How visible are interpreters in the actual conferences? How much presence is granted to them and how much presence can or do they assume? Do different degrees of (in)visibility influence their performance and the general flow of interaction?

6) Who are the users of SCI? What do they expect of interpreters? Can we really talk about general and shared expectations, or are expectations bound to subjective definitions?

7) Does gender play a role in the selection and pursuit of SCI as a profession? Does it influence the presence and performance of interpreters?

8) (How) do ideological and power differences manifest themselves in SCI settings? Are interpreters aware of these?

9) What are the impact of various technologies (remote interpreting, live broadcasts, webstreaming) on the presence and performance of interpreters? (p. 215-216)

Among the questions in this list, 1), 2) and 6) may be regarded as expectations and criteria of SCI, questions 3) to 5) relate to the influence of the presence of interpreters and items 7) to 9) are about the personal, social and technical factors.

Shlesinger (1998), as the pioneer for Corpus-based Interpreting Studies (CIS), introduced the difficulties and yet possibilities for applying corpus-analysis methods in interpreting studies, especially in norm-based interpreting studies. She introduced the notion of "Interpretese" in Shlesinger (2008, p. 237). Shlesinger (2008) compared the oral and written STs and the translated and interpreted TTs by professionals through lexical variety (measured by the type-token ratio), the verb system, the definite article, part-of-speech distribution, possessives and lexical choices. Marked differences were found between the translated texts and interpreted texts. She called for more efforts to study the features of "Interpretese", i.e., features of the product of interpreted discourse,

whereby knowledge of the process of interpreting may be gained (ibid, p. 250).

Actually, the study of interpreting norms may be regarded as an extension of product- and particularly process-oriented interpreting studies. Pöchhacker (2004) stated the close tie between the study of interpreting strategies and norms:

> ... strategies cannot be accounted for purely in terms of input load. Rather, the interpreter's awareness of – and attempt to meet – certain expectations regarding his or her product and performance, which Chesterman (1993) refers to as translational "expectancy norms", may be as powerful as cognitive constraints in shaping the interpreter's strategic response ... Nevertheless, the line between the two (strategic and norm-guided behavior) would be hard to draw. (p. 132, elaboration added by the author in the current study)

Gumul (2006), for example, investigated the phenomenon of explicitation in simultaneous interpreting and found that most of the explicitating shifts in the experiment of student interpreters were not strategic, but were applied by the subjects subconsciously. This might indicate that, explicitation could be regarded as a norm in simultaneous interpreting rather than a strategy. The study of Baumgarten, Meyer and Özçetin (2008), based on a parallel corpus of translation and a corpus gathered from an interpreter-mediated conference, questioned the inclusion of explicitation as a Translational Universal. The study compared the interpreted version of place names in both consecutive and simultaneous interpreting data in the corpus and found the occurrence of explicitation in interpreting depended on the interpreting mode, interpreters' individual differences and other "constellation features" (ibid, p. 198).

Furthermore, studies such as Monti, Bendazzoli, Sandrelli and Russo (2005) provided tagged corpus resources of professional interpreters and profusive opportunities for the analysis of relevant strategies or norms displayed in the interpreted discourse.

In conclusion, the extension of corpus-based interpreting strategy studies into the

descriptive studies of interpreting norms has provided valuable theoretical knowledge and methodological dynamic for problem analysis in interpreting research. The review of studies in this field demonstrated that although there were several norms regularly discussed or universals in Translation Studies such as explicitation or simplification, corpus-based studies of "interpretese" were still sporadic and, therefore, much effort is needed before systematic results can be gained. In addition, many established norms or universal features in translated texts remain controversial, which also call for more systematic explorations. Finally, although many empirical studies involve student translators or interpreters, much remains unknown about the "semi-professional translationese/interpretese" (Pan & H. Wang, 2012), the exploration of which can thus shed much light on translation and interpreting pedagogy as well as the co-construction of norms in the community of the translation and interpreting classrooms.

2.1.2.4 Existing Models in Accreditation Tests and Classroom Assessment

Schemes of accreditation tests and classroom assessment in interpreting, assessing acquired knowledge and skills as well as problems of potential interpreters or interpreting learners, are usually developed based on the theoretical investigation of interpreting product, and particularly process and norms. This section will review examples of interpreting accreditation tests and classroom assessment schemes, a modeling of which are constructive to and can serve to aid problem analysis in interpreting. Although there have been many discussions on the validity of test constructs or test types such as aptitude texts and competency tests (see Arango-Keeth & Koby, 2003; Campbell & Hale, 2003), the current review will only focus on the assessment criteria in these schemes.

To this end, a review of the Practical Guide for Professional Conference Interpreters stipulated by AIIC serves as a good start. According to regulations on professional ethics in interpreting of AIIC (2004b), "the interpreter's primary loyalty is always owed to the speaker s/he is interpreting. It is the interpreter's duty to communicate the speaker's meaning as accurately, faithfully and completely as possible, whatever the speaker's position or point of view" (4.1 Professional ethics, para. 9). In addition to the requirement regarding quality in interpreting message, it is also required

that the interpreter should make "clear and lively" (or "fluent, expressive, and communicative") "delivery" of the interpretation (ibid, 3.3. Quality interpreting, para. 1). Also, on the linguistic level, the "register" should be matched to "that of the speaker and the audience" (ibid, 3.3. Quality interpreting, para. 7).

Many accreditation tests and classroom assessment models follow very similar requirements which can fit into the three-level scheme, i.e., the scheme that consists of the content/meaning, language/form and presentation/delivery levels. For example, the California Certified Interpreter Oral Performance Evacuation (California Certified, 2010) applied a combination of holistic and objective methods of rating. Holistic rating applied two rating scales, one for language proficiency and the other for interpreting skills (Consecutive Interpreting of both directions, Sight Translation of both directions and English to Foreign Language Simultaneous Interpreting) with descriptive parameters for each level of performance. For the rating of language (in this model, presentation/delivery factors such as fluency was included into the language proficiency scale rather than forming a separate scale), separate judgment is given to English and the foreign language, based on the parameters of phonology, syntax, lexicon, semantics and pragmatics (ibid, p. 1). In addition, the rating also applies an objective assessment method: calculating the number of correctly rendered key words/units of meaning selected by the test developers (ibid, p. 3). The assessment scheme includes a section on features of performance that "fall below the minimum standard" which can be regrouped into the content/meaning, language/form and presentation/delivery levels (ibid, p. 16) (see Table 2.6). The three factors listed in the last column under "others" are those that might involve the speculation of the observer and cannot be put into the three-level scheme summarized in the previous sections.

Table 2.6. Regrouping the parameters indicating "failure" in California Certified (2010, p. 16)

Content/meaning	Language/form	Presentation/delivery	Others
1) Lack of comprehension of source material 2) Omission 3) Invention 4) Embellishment 5) Paraphrasing 6) Summarizing 7) Changes in meaning	1) Incorrect word choice and use 2) Literal translation (inappropriate application of lexical and syntactic patterns of source language) 3) Inappropriate language mixing 4) Inappropriate multiple synonyms 5) Hypercorrection (overuse of certain structures)	1) Long pauses/hesitation/inappropriate hedging not in source language 2) Difficulty keeping pace with the speaker 3) Backtracking 4) Poor audibility 5) Poor enunciation	1) Note-taking that interferes with a timely rendition in the consecutive component 2) Limited retention 3) Lack of self-monitoring

Likewise, the US Federal Court Interpreter Certification Examination (FCICE) is rated based on an objective score and a subjective score. The primary parameter is meaning, which is measured by "a sum of all the points awarded for certain key words and phrases that are marked on the examiners' copies of the texts" ("Tips", n.d., Scoring the exam, para. 1), whereas "delivery" and "adaptability" or "resourcefulness", being the second parameter and only playing a periphery role, is rated by a subjective score (ibid, para.2).

The Cultural Interpreter Language and Interpretation Assessment Tools (CILISAT) in Canada use an information score and a language score. The information score, based on the information calculation scheme in Harris (1975), is obtained by deducting points for mistakes (graded by the degree of seriousness) from the total information weight calculated based on the number of information units and the weight of each of the unit

("CILISAT", n.d., p. 5; CILISAT Interpreter Test Scoring Key, 1995, from B. Harris, personal communication, April 23, 2010). Interestingly, in a more detailed and recent description in J. Lee (2009), the Canadian community interpreter's qualification test (i.e., CILISAT) now has a scoring weight of 10% given to the handling of names and numbers (p. 173), raising the importance of the correct rendition of this component in community interpreting.

Likewise, the National Authority of Accreditation of Translators and Interpreters (NATTI) in Australia depends on an "error deduction" scheme with the "seriousness" of the errors taken into consideration in the translation assessment (M. Kim, 2009, p. 125). Errors taken into consideration in the NATTI assessment criteria included "too free a translation", "too literal a translation", "spelling", "grammar", "syntax" and "punctuation" (ibid, p. 125), with the first two about meaning, the middle three about language and the last one concerning presentation.

In the assessment of Conference Interpreting in the China Accreditation Test for Translators and Interpreters (CATTI), the parameter of content (fidelity, coherence and completeness) weights 30%, whereas the language (grammar, structure, diction and terminology) and fluency parameters (delivery speed, avoidance of overt repetitions) are 20% respectively (Y. Qi, 2008, p. 284). An extra 10% is given to pronunciation (tone and intonation). Additionally, Y. Qi (2008) reviewed the assessment parameters for the Shanghai Interpreters Accreditation (SIA) (also see B. Wang & Mu, 2009) and those of the interpreting test in the Test for English Majors (TEM) – Band 8, both may be grouped into the three categories of content, language and delivery. Furthermore, a brief look at the assessment sheet for the National Interpreting Contest (usually serves a double function for evaluating interpreting performance at a national level and for employers to select potential interpreters, also see H. Guo, 2010; National, 2010) reveals the primary assessment parameter of information, which is then followed by the parameters of delivery and ethic qualifications.

Entrance examinations for interpreter training programs also seek potential abilities of candidates concerning the three parameters of language, presentation and content in interpreting. For example, the conference interpreter training program at the Graduate Institute of Interpretation and Translation (GIIT) of Shanghai International Studies

University (SISU) assesses candidates in the following aspects: comprehensive competence of the A language, comprehensive competence of the B language, listening ability of the C language (if any), information/logic analytical and summative ability, world knowledge, clear delivery of message, communication skills, responsiveness and psychological quality (GIIT, 2011, entrance examination section). The first three skills relate to language, whereas world knowledge is relevant to content or message transfer, and the rest pertain to performance in delivery. In addition, Pippa and Russo (2002) reviewed aptitude tests for conference interpreting training programs at various institutions all over the world, including Georgetown University's School of Language and Linguistics, the University of Ottawa, the University of Stockholm, Interpreter and Translator Training Centre (ITTC) of the University of Budapest (ELTE), Centre for Conference Interpretation (CIC) at Copenhagen Business School (CBS) and the School of Translation and Interpretation (ETI) at the University of Geneva. The study presented a linguistic-cognitive aptitude test model composed of three categories of competences at the syntactic (reduction, expansion, syntactic transformation, syntactic and lexical transformation, lexical transformation, permutation, production disorder, etc.), semantic (deletion, additions, interpretative paraphrase, non-relevant, synonymic and paradigmatic substitution, loss of coherence, etc.) and pragmatic (pragmatic loss/gain, theme/focus, delivery, etc.) levels for the training of conference interpreters (p. 252-255).

As far as classroom assessment schemes are concerned, there are comprehensive schemes for the measurement of the overall competence of students and particular schemes measuring one or two specific skills. For the comprehensive analysis of students, Schjoldager (1996) provided a marking sheet for the assessment of simultaneous interpreting in her interpreting class. Major assessment criteria in the sheet included comprehensibility and delivery (delivery), language, coherence and plausibility (language) and loyalty (meaning) (p. 191-192). J. Choi (2006) proposed a metacognitive evaluation method for interpreting students, whereby the assessment of students' performance and learning curves were both targeted. The criteria used in the scheme included accuracy of meaning (e.g. omission, addition and mistranslation through comparing the ST and TT), appropriate expressions (e.g. grammar, terminology, etc.)

and presentation (e.g. voice, speed, articulation, rhythm, etc.) (ibid, p. 278). Based on a review of admission testing for conference interpreting programs primarily in Europe, Timarová and Ungoed-Thomas (2008) found that testing schemes of these programs prioritize the skills of language and communication, followed by comprehension and analytical skills and general knowledge (p. 38). The three skills noted as secondary in these tests may be grouped into the content level whereas language and communication fall into the level of language and presentation respectively.

The assessment for the European Masters in Conference Interpreting (EMCI) programs included assessment criteria regarding content, form and skills as summarized by Hartley, Mason, Peng and Perez (2003, p. 5). The category of form may be divided into a language and delivery level. Based on a comprehensive review of existing literature on professional standards, educational standards and linguistic standards, this project worked on the modification and clarification of the components at each level and raised the possibility of observation of each component from the output (see Table 2.7). Therefore, the scheme may be easily applied for peer and self-assessment in EMCI programs. Through experimenting with the original scheme (the left side column of Table 2.7) among advanced trainees, trainers, professionals and monolinguals, the project identified the necessity to have a separate category of "delivery", which consists of sub-components such as "fluency" (including hesitation, regular/irregular delivery, false starts, etc.) and "intonation" (ibid, p. 14). Besides, "accuracy" was added at the content level, referring to "accurate use of fact, figures, etc." and "faithfulness to source speech" (p. 14). Major elements of the second version based on scheme users' feedback are also included in Table 2.7 below the arrow. Again, the grid resembles a three-level analytical model consisting of content/meaning, language/form and presentation/delivery.

Table 2.7. EMCI final exam benchmark (Based on Hartley et al., 2003, p. 5, 14, 23-24)

EMCI final exam benchmark		Attempt of Hartley et al. (2003) of further analysis and clarification	
Content	accuracy/fidelity	source text vs. target text	→ observable in output
	coherence/logical links	target text as a whole	
	cultural comprehension, general knowledge	→ inferable from output (cognitive resources and processes)	
	linguistic comprehension	→ observable in output (accuracy & fidelity)	
Form	concision, clarity grammar and usage appropriate vocabulary style, register	→ linguistic attributes (phonetic, grammatical, lexical, semantic) observable in output	
	delivery	→ fluency or presentation skills?	
Skills	communication	→ function of the output, judged by the end users	
	analysis, reasoning, problem-solving	→ inferable from output, yet not observable	

↓

Inter-textual (ST vs TT	Content	Accuracy (accurate fact, figures, etc.; and faithfulness to source speech) Completeness (no substantial omissions)	
	Grammar	Interference	
	Rhetorical force	Intention (conveys speaker's speech act)	
Intra-textual (TT judge as whole)	Language	Texture	Coherence (making sense, no contradictions) Concision (not too wordy)

			Cohesion (synonyms, pronouns, repetitions, linking words) Idiomatic expression Grammatical correctness Vocabulary/terminology
		Structure	No unfinished utterances Chunking (signaled by intonation and pauses) Logical links between chunks
		Repairs	Error corrosion Reformulation
	Delivery	Voice	Articulation Intonation (flat / lively; natural / unnatural) Accent Quality
		Pace (fast/slow)	
		Fluency (hesitant, regular, irregular, false start, etc.)	
	Context (register & style)		
Behavioral skills	Microphone use; booth manners; grit		
User friendliness/user perceptions	Clarity Clear/ambiguous Relevance/salience/ priority		
Supporting knowledge	Skills (problem-solving, reasoning, analysis) Knowledge (general (current affairs, world knowledge and cultural comprehension) vs. specific)		

C. Yang (2005), based on a review of relevant literature and her teaching experience at the Graduate Institute of Translation and Interpretation Studies (GITIS) at Fu Jen Catholic University, put forward an evaluation scheme for the professional exam at the end of the interpreter training program. The scheme, with a combination of both "quantitative evaluation" and "qualitative description" (p, 234), primarily assesses three

aspects of interpreting: fidelity, delivery and language, with a combination of a fourth element: time control (p. 237-238) (see Table 2.8). With apparent clarity and easy applicability, the scheme gained wide application in many interpreting programs and has been discussed frequently in relevant literature.

Table 2.8. Sub-elements of C. Yang's evaluation scheme and their corresponding scoring weight (Translated and adapted from the scoring sheet in C. Yang, 2005, p. 237-238)

Fidelity (50%)	Misunderstanding (30%) Omission (10%) Overtranslation (10%)	
Delivery (30%)	Expressiveness (20%)	Coherence & logic (10%) Pronunciation & rhythm (5%) Tone (5%)
	Fluency (10%)	Extra sounds or silence (5%) Repetition (5%)
Language (20%)	Foreign language (grammar, semantics, choice of words, etc.) (10%) Mother tongue (pragmatics, style, etc.) (10%)	

Likewise, Cai (2007), based on a review of professional accreditation schemes and classroom assessment schemes, indicated three major parameters for the assessment of interpreting performance, i.e., accuracy of linguistic expressions, fidelity and fluency. Sub-components of and measurement for each parameter were also discussed (see Table 2.9).

Table 2.9. Major parameters of interpreting assessment and their measurement in Cai (2007) (Summarized by the author of the current study)

Parameters	Measurement
Accuracy of linguistic expressions	Ratio of correct units to incorrect units
	Ratio of complete sentences to incomplete sentences
	Number of subordinate sentences
	Total amount of discourse information
Fluency	Speech rate
	Speech ratio
	Rate of pronunciation
	Average length of delivery
Fidelity	Correctly rendered information
	Changed information
	Omission of information
	Rendered information structure

Chen (2002) proposed a scheme for interpreting performance assessment divided into the modules of language, knowledge, interpreting skills and psychological preparedness. Interpreting skills in the model included a component of public speaking skills, calling for attention to the presentation/delivery of interpreting.

Furthermore, many studies put a focus on the measurement of specific skills in classroom assessment. For example, comparing the performance between novice and professional interpreters, Peng (2009) put forward a scheme where the Rhetorical Structure Theory (RST) could be applied to assess the cohesion and structure of interpreted texts. Based on the model, discourse structure and inter-textual relations of different interpreted texts could be mapped in a tree-like scheme, allowing further comparison between each other. M. Kim (2009), based on Systemic Functional Grammar (SFG), proposed a scheme for meaning-oriented assessment in translation classrooms. The scheme divided errors into major (including experiential, logical, interpersonal and textual errors) and minor ones (including graphological mistakes and minor grammar mistakes) (ibid, p. 136). Sub-parameters of the major errors were

analyzed at the lexis, clause and text levels (ibid). The assessment scheme was found to be helpful for students to enhance their performance in NATTI.

There are also discussions regarding the use of different assessment methods for professional and student interpreters. For example, Clifford (2001), addressing the limits of the lexico-semantic approach in interpreting assessment, proposed the application of rubrics for performance-based assessment in professional interpreting. His example assessment rubric based on discourse theory consists of parameters such as deixis, modality and speech acts. Clifford (2005), through a review of the prevalent quality-oriented assessment in translation and interpreting and the psychometric evaluation in other disciplines, notes that the latter should be applied in interpreter certification schemes. In addition, Baer and Bystrova-McIntyre (2009) note that the development of assessment tools for textual cohesion in translations by novice translators should be based on comparable corpora. Factors such as punctuation, sentencing and paragraphing were analyzed. J. Lee (2008) proposed a rating scale for interpreting assessment, which consisted of the parameters of accuracy, TL quality and delivery. The study found that professional and novice interpreters showed more consistency in rating accuracy than TL quality and delivery.

In conclusion, a review of the existing schemes and theoretical proposals for accreditation tests and classroom assessment of interpreting performance, regardless of the type or mode of interpreting, reveals a very similar pattern consisting of the macro-parameters as those discussed in the previous two sections. Although presentation/delivery is sometimes grouped under language/form (e.g. Hartley et al., 2003), the sub-components under these macro-parameters remain similar. Continuing efforts to improve the assessment schemes for professional accreditations or training programs have improved the patterning of interpreting performance analysis and increased the dimensions of existing schemes, which, in turn, forwarded the theoretical modeling of interpreting product and process. Special attention should be paid to the element of public speaking skills and the rendition of names and numbers in some evaluation models, which has been under-represented in previous research. Furthermore, the development of measures for the macro- and micro-parameters of interpreting assessment (Cai, 2007) have provided the opportunity for developing a corpus-based

evaluation scheme, which is useful in the large-scale systematic analysis of interpreting performance of both professionals and student interpreters.

2.2 Self-Perceptions and Individual Differences in Interpreting Learning

2.2.1 Language Learning and Interpreting Learning

In recent years, an increasing tie between research on SLA and that on interpreting learning has transpired. On the one hand, there is a growing recognition that SLA and the learning of interpreting are closely related; on the other hand, many studies on interpreting pedagogy, borrowing profusely from SLA and bilingual studies, have generated significant findings and contributed greatly to the understanding and development of the field.

First, it has been recognized that SLA and bilingualism form an indispensable part of interpreting and, therefore, interdisciplinary cooperation with these fields becomes essential for research on the learning of interpreting. At the famous Turku conference on interpretation research in the 1990s, Moser-Mercer, Lambert, Darò and Williams (1997) noted the importance of applying bilingual and SLA studies in interpreting research. According to them, "cognitive research on bilingualism and SLA research has developed various ways of studying the many components involved in language use", which "could usefully be applied to interpreting research" (ibid, p. 140). Dillinger's (1994) experiment proved that comprehension in interpreting involved only bilingualism-accompanied skills and indicated the close relationship of bilingualism and interpreting. This study might seem reminiscent of two studies: Karmiloff-Smith (1978), which addresses the psychological similarities between simultaneous interpreting and children's first language development, and Harris and Sherwood (1978), which holds the position that Translation (including interpreting) is an innate skill of bilinguals. A study by Valdés and Angelelli (2003) also called for a cross-examination of literature in interpreting research and bilingualism studies for the shared issues and interests in both fields. Williams (1994, 1995), with the consideration that there should be at least one second language in interpreters' working language combinations, notes the benefits that can be brought about by SLA research in studying interpreting. Malmkjær (1998) gives a more recent account of the controversial relationship between Translation and

language teaching, including studies addressing both similarities and differences between the two. Furthermore, Colina (2002), recognizing the recent theoretical developments in SLA and Translation Studies and the benefits of integrating Translation courses into language programs, calls for more empirical research on the "interface" between these two disciplines (p. 17). In addition, Zannirato (2008) noted the close relationship between interpreter training and SLA/foreign language teaching. He recognized the fact that "today's interpreting students are in most cases language students" and, therefore, "in most cases there can be no interpreter training without previous (and often concurrent) SLA" (p. 21). He further indicated that SLA formed an important aspect of interpreter training and learners of both disciplines had much in common, especially when the composition of interpreting competence is taken into consideration (e.g. Kalina, 2000). Such statements about the integral contribution of SLA to interpreter training echo many other studies in which learners' language needs in interpreter training programs were addressed (e.g. Bao, 2004, 2008; D. Li, 2000a, 2002; D. Li & Hu, 2006; H. Liu, 2007; E. Wang, 2007; Pan, Sun, & H. Wang, 2009; Pan & Yan, 2012).

Second, a number of studies, addressing the intersection between language learning and the learning of interpreting in particular, provide a bridge between knowledge of the two fields. Shaw, Grbic and Franklin (2004), for example, looked closely at the "transition phase" (p. 72) between language learning and interpreting learning. The study investigated students' perspectives concerning their "readiness" to learn interpreting (ibid, p. 79-80) using a focus group interview method and identified six constructs that could contribute to successful transitions from language learning to the learning of interpreting, i.e., personality characteristics, academic skills, professional expectations, support systems, faculty relationships and program/curriculum (ibid, p. 83). Malkiel (2008) investigated students' performance in translation, interpreting and in both their A and B languages in a translation/interpreting program. Students' scores in these subjects were taken as the measurement of their performance. The study found significant correlations between students' performance in the first year and in the second year, between students' performance in translation and interpreting, and more interestingly, between students' command of languages (both A and B languages) and

their performance in translation and interpreting. Furthermore, Yan et al. (2010) studied the interplay between learner factors, self-perceived language ability and interpreting learning. In addition to identifying learner factors such as gender, motivation and language learning habits being closely related to the learning of interpreting, the study found a significant correlation between learners' self-perceived language ability and their ability in interpreting learning. Moreover, learners' self-perceived second language (i.e., English) ability was found to be the most powerful predictor of their interpreting learning achievement. Although addressing Translation in general, Kelly (2007) successfully made the alignment between the translator competence and the generic competences targeted by most higher education training institutions in Europe. The study provides great insights into the structure of translator training programs. Meanwhile, studies such as Krings (1986) and Lörscher (1986, 1991), while recognizing that both translation and language students share the "rudimentary ability to mediate", provided qualitative and quantitative evidence that language learners' translations were different from those of professional translators: the former were primarily "sign-oriented" and there latter were primarily "sense-oriented" (Lörscher, 1992, p. 157).

Finally, disciplines such as language learning and teaching, boasting a long tradition of empirical research and established research schemes (see Johnson, 1992; Nunan, 1992/2008; Seliger & Shohamy, 1997), can provide invaluable insights into the comparatively newly-developed discipline of interpreting studies (see Pöchhacker & Shlesinger, 2002a). The recent development in interpreting studies requires an increasing number of humanistic and sociological investigations with empirical designs and, thus, shares many common research interests with language learning/teaching (see Gile, 1994, 1995a, 1998b, 2004; Pöchhacker & Shlesinger, 2002b; Pöchhacker, 2004). In fact, many studies in the last decade have borrowed greatly from established research schemes or notions in disciplines such as SLA and contributed substantially to the understanding of interpreting learners (e.g. Kurz, Chiba, Pastore, & Medinskaya, 2000; Jeong, 2005; Shaw & Hughes, 2006; Chiang, 2006, 2009, 2010; Yan et al., 2010; Pan & Yan, 2012), to the design of aptitude tests (e.g. Rosiers et al., 2011; Shaw, 2011; Timarová & Salaets, 2011), to pedagogy development (e.g. Horváth, 2007; Napier, 2010) and classroom evaluation (e.g. Clifford, 2005; Y. Lee, 2005; Chen, 2009). For

example, based on existing instruments of second language anxiety, Chiang (2006) developed an instrument to measure interpretation classroom anxiety. The study not only identified many similarities regarding second language anxiety between interpreting students and second language learners, but also revealed that interpreting learners' interpretation anxiety and foreign language anxiety were both negatively correlated to their interpretation achievement. Furthermore, both types of anxiety were significant predictors of interpreting learners' learning outcomes. Chiang (2009, 2010) continued this effort to explore anxiety in interpreting learners. Kurz et al. (2000), adopting the Kolb Learning Style Inventory, identified learning style differences between translation and interpreting learners and similarities between student interpreters and professional interpreters. Timarová and Salaets (2011), with the application of existing instruments in psychology and general education, investigated learning styles, motivation and cognitive flexibility in interpreter training. The study identified important characteristics of interpreting learners regarding these three constructs. Although about written translation, Liao (2002) provides another example of the application of constructs and measurements in SLA. Based on instruments measuring learner beliefs in foreign language learning and research on learning strategies in SLA, the study developed an instrument to measure beliefs about translation and investigated the role of translation as a learning strategy for language learners. The study confirmed the positive side of using translation as a strategy in language learning and the importance of studying learners' beliefs about translation.

In addition to the common research interest in studying learner characteristics shared with SLA, interpreting research has also shown a growing interest in the investigation of learning autonomy, especially with the development of modern technology and the increasing demand for remote interpreter training programs (e.g. Hartley et al., 2003; Moser-Mercer, Class, & Seeber, 2005; Hansen & Shlesinger, 2007; Horváth, 2007). Correspondingly, learners' self-evaluation and self-perceptions were gaining increasing attention in interpreting classroom research (e.g. Y. Lee, 2005; Bartłomiejczyk, 2007). The study by Moser-Mercer et al. (2005) provided a comprehensive view and examination of the social-constructive learning environment of an online program at the University of Geneva. The study investigated the skill

acquisition of interpreting learners in particular. According to the initial report, the program successfully provided an autonomous learning environment that was constructive for the development of interpreting expertise. Furthermore, Y. Lee (2005) notes that self-assessment, in addition to being important to the autonomous learning of interpreting, is a critical skill of professional interpreters.

In conclusion, with the increasingly clearer recognition of the kinship between language learning and interpreting learning, the shared ground of research in these two fields is expanding, including the growth of common interests in studying individual differences and learners' self-perceptions. The following sections will discuss in more detail studies regarding learners' self-perceptions and individual differences in interpreting learning. Relevant studies in language learning will be referred to to gain a more comprehensive picture of these topics.

2.2.2 Self-Perceptions in Interpreting

With the increasing emphasis on voices of learners in interpreting/translation classrooms (e.g. Sainz, 1994; D. Li, 2000a, 2002; Jeong, 2005; D. Li & Hu, 2006), studies on self-perceptions of learners have also grown substantially (e.g. Y. Lee, 2005; Bartłomiejczyk, 2007; Takeda, 2010; Bontempo & Napier, 2011; Pan & Yan, 2012). Studying learners' self-perceptions can contribute to the understanding of learner needs, the construction of classroom evaluation schemes and the exploration of the constructs of interpreting competence. However, there is a dearth of literature investigating the relationship between self-perceptions and learners' actual performance in the learning of interpreting, leaving much to explore as to the role of self-perceptions in interpreting learning.

First, learners' self-perceptions are closely related to classroom needs analysis. Although about second language learning, Tarone and Yule (1989) studied learner needs in language classrooms and discussed how to address these needs from the aspects of what learners need to know and what they do and do not know. According to them, it is important to know and make correct judgment between learners' perceived aims and expectations in learning the language to work out their actual learning needs.

As a result, decisions about how to present the "best" learning experience for a group of students inevitably depend on the individual teacher's ability to work out what those students appear to need, while also remaining aware of what they expect to happen in the learning situations. (p. 9)

Although limited in number, needs analysis studies relevant to interpreting training usually investigate learners' perspectives. As indicated in Ficchi (1999), in interpreting classrooms, "the viewpoint of learners has to be given due consideration" (p. 204) as learners need to develop a learning system based on their individual needs and experiences that "best applies to his/her personality" (ibid, p. 20). Recognizing the importance of needs assessment in Translation teaching (see Sainz, 1996; D. Li, 2000a), D. Li (2002) investigated learner needs in a translation training program in Hong Kong, in which learners' reasons for learning translation, views on the relationship between language and translation training, perceptions of their language proficiency, in addition to their evaluation of the courses and program, were surveyed. The results were compared to the feedback from professional translators (see D. Li, 2000b). One important finding in D. Li (2002) was the significance attached to language training in Translation training programs by learners, whose perceived proficiency in neither of their working languages were "excellent" but "average" or "good" (p. 518). The study also notes students' "pragmatism" in studying the subject as reflected in their eagerness to learn translation skills instead of translation theory (ibid, p. 526). Meanwhile, Jeong (2005) investigated perceptions of both current and previous students in a needs analysis study of a translation and interpreting training program in Korea. The study looks into learners' employment intentions, perceptions of useful translation and interpreting skills and their views on the program. The study also suggests a comparison between learners' perceived needs in translation/interpreting training programs with those identified by the trainers. Interestingly, Takeda (2010) investigated students' research proposals and reports at an interpreter training program at the Monterey Institute of International Studies (MIIS) and identified students' expectations and concerns regarding the training of interpreting. The study suggests that students tend to show interests in explicit

instructions on strategies, the authenticity of the training materials and the influence of directionality and language categories in interpreting. The author indicates that these areas of interest should be tackled by interpreting teachers in their pedagogy development.

Second, learners' self-perceptions, their self-assessments in particular, are increasingly applied in interpreting classroom evaluation schemes (e.g. González Davies, 2004; Nord, 2005; Bartłomiejczyk, 2007; Y. Lee, 2011). As suggested in many studies (e.g. Yan, 1998; Yan & Detaramani, 2008; Yan, Cheng, & Shen, 2009), learners' self-perceptions of their language proficiency may serve as a better indicator of their learning than achievement scores. Yan et al. (2010) found that learners' self-perceived English (i.e., their B language) proficiency was the most important predictor of their interpreting achievement. González Davies (2004), in particular, noted the possibility to include students' perspectives in translation classroom evaluation:

> In an interactive context it makes sense that all the participants should have some say in the evaluation of the work ... In a conventional class, a final exam and perhaps a series of set translations would be evaluated by the teacher. However, it could be possible to include the students in the proses by means of self- and peer evaluation. (p. 32).

Waddington (2001) studied the relationship between different evaluation methods in university translation programs in Europe and Canada, including error analysis (with the calculation of gravity), error analysis (with different treatment for language and translation errors), holistic assessment and error analysis plus holistic assessment. The study's findings suggest that teachers' assessment based on all the four types of evaluation methods were significantly correlated to learners' native language competence, translation competence and most importantly, learners' self-assessment. Y. Lee (2011), after a comparison of learners' self-assessment with that of teachers in an interpreting classroom in Korea, found that students' self-assigned scores were similar to those given by teachers although the content of the assessments varied. The study confirmed the complementary role of students' self-assessment to that of teachers.

In addition, it has been noted in studies regarding Error Analysis that learners' perceptions of their errors play an essential role in their learning process. James (1998) notes the key to distinguish "error" and "mistake" is self-corrigibility (p. 78). However, the judgment regarding self-corrigibility is difficult to make without the knowledge of learners' self-perceptions of their problems. Therefore, it might not be that "the learners' errors are a register of their current perspective on the TL (Target Language)" (p. 8), but learners' perceptions of these errors or problems are. Furthermore, James lists several empirical studies in his discussion regarding the "noticeability of errors" (ibid, p. 226-234), including different viewpoints on ratings or rankings of errors by different groups (native speakers, teachers, students, etc.). These perceptions on the gravity of errors, supplementary to the analysis of actual errors of L2 (second language) learners, provide invaluable insights into language errors. Likewise, Nord (2005) suggests that translation error analysis should be combined with students' justifications or defence of their translation to distinguish actual errors and attempted strategies made by students.

Third, learners' self-assessment of their own performance are increasingly identified as part of the translation/interpreting competence to be acquired by learners and, therefore, often listed in the teaching content or aims in translation and interpreting programs (e.g. Sainz, 1994; Fowler, 2007; Hartley et al., 2003; Y. Lee, 2005, 2011; Robinson, López Rodríguez, & Tercedor Sánchez, 2006; Postigo Pinazo, 2008). Campbell (1998), recognizing the importance of self-monitoring of translation students, suggested that "the capacity to judge one's own translation output should be considered a facet of translation competence" (p. 126). Nord (2005) stated the importance of learning translation assessment as:

> If translation criticism is to be relevant to translation teaching, it has to integrate both methods: the analysis and assessment of the translation process and its determinants (including translation skopos and brief) and the evaluation of the target text and its functionality for a given purpose ... Such translation criticism is important for both teachers and learners. Whereas in translating the learners are themselves part of, and involved in, the

translation process, in translation criticism they can watch the process from outside and analyse its constituents at a distance. They can then describe the product of this process and, by contrasting it with the source text, reconstruct the process and compare it with the frame of reference provided by translation theory ... Later on, in their professional life, the students may also require the ability to assess the quality of a translation, since in industry or administration translators are often employed as translation revisers. (p. 180-181)

Fowler (2007) defines self-evaluation as "the expression of feelings and opinions of the student about the learning process", the purpose of which is "to reflect analytically on one's practice as a professional" (p. 254). Her study yielded interesting findings concerning peer- and self-evaluations in interpreting classrooms:

Peer assessment and self-assessment are both viable and desirable for the developing professional interpreter. The first step towards being able to assess oneself as an interpreter is to demonstrate the ability to assess fellow students' interpreting performances ... By doing this, the trainees develop reflective skills and raise their self-awareness of their own interpreting performance. Trainee interpreters are also capable of developing their own assessment criteria and of applying them to each other and to themselves, but were tutors devise the assessment criteria, students are greatly empowered by having these criteria made explicit to them. (p. 261)

Many studies have contributed to the evaluation of learners' self-assessment and the development of specific self-assessment schemes in translation and interpreting programs. For example, Sainz (1994) proposed a student-centred evaluation system of error corrections in translation classrooms, which is constructive to students' learning of how-to-learn skills. Todoroki (2004), through an investigation of six professional interpreters' self-reflections of their problems and strategies applied during their

simultaneous interpreting, proposed an evaluative framework applicable in the evaluation and self-enhancement of professional interpreters. J. Choi (2006) notes that the assessment of student work should be different from professionals in consecutive interpreting. The study developed a metacognitive evaluation method for novice interpreting learners to assess their learning curves. The method combined both students' and the teacher's assessment. Hartley et al. (2003), based on a thorough review of existing evaluation schemes in the professional world as well as interpreting and language classrooms, proposed a peer- and self-assessment scheme for conference interpreter training. Learners' in the study provided positive feedback on the scheme, which was further developed based on this feedback. Y. Lee (2005) investigated the use of self-assessment in an interpreting classroom in Korea. The assessment criteria may be categorized into aspects of meaning, language use and delivery. The study found the tool is useful for students to recognize their weakness and strengths and to improve their learning autonomy. Postigo Pinazo (2008) proposed a text-analysis based approach of self-assessment in interpreting teaching and noted that self-assessment not only benefited learners academically but also emotionally. Robison et al. (2006) introduced the application of self- and peer-assessment as a teaching approach for translation training at undergraduate level. Learners used a criterion-referenced rating scale for their self-assessment, supplemented by tutor moderation. The study provided both quantitative and qualitative evidence that such an approach of classroom assessment was effective and concluded that "self-assessment is a logical component of any course designed to prepare translators for the professional market place" (p. 136).

Despite the applicability of learners' self-perceptions in needs analysis, classroom evaluation and interpreting pedagogy, caution should be taken as to its actual implementation. First of all, as part of learners' belief or self-concept, perceptions of learners can guide their behavior in learning or even their later performance in the professional world, so proper guidance and instructions during the training process become necessary (see J. Choi, 2006; Robinson et al., 2006). As stated in White (2008), "learners hold their beliefs to be true and these beliefs guide how they interpret their experiences and how they behave" (p. 121). Kiraly (1995) also mentioned the importance of studying translators' self-concept:

The translators' self-concept is a mental construct that serves as the interface between the translator's social and psychological worlds ... The translator's self-concept allows for the integration of the social world of translation into the cognitive one and is a requisite for the translator's ability to project a translation expectation. (p. 100)

Nord (2005) also noted that translation students usually "have a certain idea of what translation is or should be, which, although it does not correspond to the requirements of professional translation, widely determines their translation activities" (p. 258-259). Therefore, it is necessary to compare learners' perceptions with the program objectives and the social norms of the profession.

Rather than being constant, self-perceptions are a variable and should be studied in relation to the learning context and in comparison with the actual performance of the learners. For example, as indicated by a classroom experiment by Gile (1995b), students' perceived errors regarding the content of an interpreted speech may not really reflect the reality. In addition to almost a half undetected errors, students in his study identified "many 'false positives' or 'false negatives' in their assessments" (ibid, p. 160). Campbell (1998) noted that translation learners' ability to self-assess varied substantially between language groups. More importantly, learners' lower language competence was related to their overestimation of translation ability and higher language competence to underestimation (ibid, p. 137). Bartłomiejczyk (2007) studied learners' self-evaluations of their interpreting performance and noted a trend of negative comment of students. Most of the learners' comments related to faithfulness to the original and completeness whereas almost none were about presentation (e.g. intonation, pauses, etc.). The study suggested that learners' perceptions about presentation problems, if any, could be most effectively translated into enhancement of their actual performance but not perceptions of other problems. Furthermore, Pan and Yan (2012) provided a thorough analysis of learners' perceived problems in learning interpreting and their interplay with different learner variables. Learners' problem perceptions in the study

included their reported problems, problems worried about and those regarded as fatal. The study revealed learners' criteria in assessing their own performance and more importantly, their self-recognized problematic areas, which demands special attention from their teachers. The study found that the most common problems reported and worried about by learners were "failure to produce corresponding words" at the language level and disfluency at the presentation level (ibid, p. 206-207). Interactive relationships were found between learners' problem perceptions and learner variables such as gender, major, family influence, perceived language ability as well as learners' interest and confidence in interpreting. Nevertheless, a comprehensive picture of these problems cannot be painted without the comparison between learners' perceptions and their actual problems.

In fact, as reviewed earlier, only very few studies compared learners' perceptions with the analysis of learners' actual performance done by the researcher (see Gile, 1995b; Campbell, 1998) or teachers (see Waddington, 2001; Y. Lee, 2011). These studies generated very different results and are very difficult to align due to the application of different analytical schemes. Despite the lack of research in this area, computer-based evaluation of interpreting or translation offers an objective perspective to classroom evaluation and provides the possibility to examine a large scale of data (see Bowker, 2001; Lindquist, 2005; Fernández-Silva & Kerremans, 2011; Hassani, 2011; Jimenez-Crespo, 2011), which may generate meaningful findings when compared with the analysis by learners and researchers or teachers.

Finally, learners' reported self-perceptions should be studied together with affective factors such as the degree of confidence. As stated in Tarone and Yule (1989), "when affective factors are explicitly discussed, there seems to be a consensus that the general notion of self-esteem may be a crucial factor in the learner's ability to overcome occasional setbacks or minor mistakes" (p. 139). They divided learners' self-perceptions of errors into confident/unconfident correct/wrong answers, and emphasized the importance to learn the "very confident wrong answering of learners" as the real reflection of learners' problematic areas in learning (ibid, p. 141). In Smith (2007), the major difference between students and professional translators was identified as their confidence built by experience in the profession.

Many of the student participants' problems and mistakes can be explained by lack of experience and lack of confidence in their knowledge and abilities. Both lead to inefficient task performance. Professional translators often gain such experience and confidence by learning on the job. Good, systematic teaching in translator training courses can speed up the gaining of efficiency and prevent students reverting to old habits of ineffective behaviour. (p. 157)

Bontempo and Napier (2011) found that interpreters' goal orientation, self-efficacy and negative affectivity were significant predictors of their self-perceived competence. The role of individual differences, including affective factors and many other learner variables in the learning of interpreting will be reviewed in the next section.

2.2.3 Individual Differences in Interpreting Learning

Prior to its introduction to the field of interpreting studies, individual differences (ID) have been thoroughly researched in SLA. According to Lightbown and Spada (2006), the study of ID in language learning started with the eagerness to gain knowledge about the characteristics that make a "good language learner" (p. 54). Ellis (2008) stated that individual factors such as gender, age, intelligence, working memory, language, language aptitude, learning styles, personality, motivation, anxiety and learning strategies have often been addressed in SLA studies and their interplay with learners' learning process and achievement has often been investigated. Likewise, measurements for many of the individual factors have been developed and tested, such as the Beliefs of Language Learning Inventory (BALLI) (Horwitz, 1988), the Foreign Language Classroom Anxiety Scale (FLCAS) (Horwitz, Horwitz, & Cope, 1986) and the Attitude/Motivation Testy Battery (AMTB) (Gardner, 1985a, 1985b).

Despite the most routinely discussed cognitive (Rysiewicz, 2008; Chapelle & Heift, 2009; Jones, 2009) and affective variables (Masgoret & Gardner, 2003), areas still to be explored in ID research include the demographic, socio-biographic and learning backgrounds of learners (see Tarone & Yule, 1989). Dewaele, Petrides and Furnham

(2008) investigated learners' socio-biographical variables (age, gender, education level, number of languages known, age of acquisition, context of acquisition, frequency of use, socialization, network of interlocutors and self-perceived proficiency) and trait emotional intelligence in relation to both communicative anxiety and foreign language anxiety of adult multilingual adults. Most of these factors were relevant to both types of anxiety. Yan and Detaramani (2008) investigated learner factors including gender, length of learning, parental elements, actual and perceived achievement, in addition to motivation in relation to students' anxiety levels and found most of the factors influential. Baralt and Gurzynski-Weiss (2009) found that variables such as gender, handedness, procedural dysfunction, L1 (first language) vs. L2 (second language), age of learning, amount and type of exposure to the language and other factors such as genetic factors were influential in language learning. Carlsen (2009) noted that learner characteristics including language combinations, population representativeness, first languages and other background variables (sex, age, educational background, number of language lessons, motivation, social contact with native speakers, etc.) were important information in designing learner corpora. These studies not only address the central role of learners in the classroom, but also provide sound basis for teachers' design of different teaching activities and strategies for different learners.

In interpreting studies, the study of ID has mostly been related to the investigation of aptitudes for learning interpreting, i.e., personal traits or characteristics that can predict successful learning. Variables often discussed in relation to interpreting aptitudes can be summarized into the following categories (see Moser-Mercer, 1985, 2000/01; Lambert, 1991; Brisau, Godijns and Meuleman, 1994):

1) Language background (e.g. command of the working languages, pronunciation);

2) Knowledge background (e.g. familiarity with the topic issues, curiosity to new knowledge or information);

3) Social-communicative ability (e.g. knowledge of relevant cultures, command of speech-making-related techniques, good voice, ability to work as part of a team);

4) Cognitive-affective factors (e.g. ability to cope with stress, assertiveness, resilience, working memory).

In particular, Brisau et al. (1994) provides a set of profiling parameters to describe the psycholinguistic features of professional interpreters, which include linguistic factors (e.g. vocabulary, syntax, listening comprehension and delivery) (cf. 1) in the above scheme), psycho-affective factors (e.g. self-concept, cognitive style, real-world knowledge, anxiety, attitude, stress resistance and metacognition) (cf. 3) and 4) in the above scheme) and neurolinguistic factors (e.g. attention, memory and cerebral lateralization) (cf. 4) in the above scheme). Many factors presented the category of psycho-affective factors are still understudied today.

Recently, increasing attention has been paid to the "soft skills" such as personality factors in interpreting learning rather than the traditionally-researched cognitive factors (see Russo, 2011; Shlesinger & Pöchhacker, 2011; Yan, Pan, H. Wu, & Y. Wang, in press). For example, Jiménez Ivars and Pinazo Calatayud (2001) studied the interrelationship between anxiety, public speaking and consecutive interpreting performance of student interpreters. Results of the study indicated a relationship between confidence in public speaking and state anxiety levels.

In the pioneering work of Schweda Nicholson (2005), the instrument of Myers-Briggs Type Indicator (MBTI) was applied to investigate personality profiles of interpreting trainees at two universities in the United States. However, none of the hypotheses about the personality types of interpreting trainees was supported by the data analysis. The researcher then concluded that although it was interesting to investigate personality profiles of interpreting trainees, language abilities should be a far more important determiner than personality types in interpreting screening tests. However, in investigating interpreting aptitudes, it would perhaps be more convincing if the researcher compared these learner profiles with the actual learning process and achievement, as a simple profiling of learners in specific interpreting programs can hardly attribute to what successful learners should look like. In fact, profiling of interpreting trainees may be more influential in predicting individual needs in learning rather than indicating their learning aptitudes.

Also relevant to the investigation of interpreting aptitudes, the studies of Shaw et al. (2004) and Shaw and Hughes (2006) specifically investigated the attributes for successful transition from language learning to the learning of interpreting. The first study applied a grounded theory method and found that factors relevant to the transition included learners' personality characteristics, academic skills, professional expectations, support systems, faculty relationships and program/curriculum. As a follow-up study, Shaw and Hughes (2006) further investigated learners' personality characters and academic skills in learning interpreting. A self-report instrument, Student Characteristics, Process and Academic Skills Survey (SCPASS) was developed and applied to seek responses from both students and faculty. The study found that language learning related academic skills, i.e., self-regulation in learning L2, L2 involvement, L1 competence and desire to learn, and personality/characteristics-related factors including confidence, comfort in groups and self-motivation were important factors in learning interpreting. The authors also recommended further investigation of the influence of these variables on the actual learning performance of interpreting learners.

López Gómez et al. (2007) investigated the possible predictors for the proficiency of sign language interpreting and that of sign language as a second language of student interpreters. Factors studied included perceptual-motor coordination, cognitive skills, personality factors and learners' academic background. The study found that cognitive skills were more powerful predictors for success in sign language learning and the learning of sign language interpreting compared to personality factors. However, personality variables such as flexibility, stress-resistance and self-confidence related to students' success in sign language interpreting.

Timarová and Salaets (2011) researched the role of learning styles, motivation and cognitive flexibility in learning interpreting. Measurements for the variables in psychology studies and general education were adopted for the study, including the Inventory of Learning Styles (ILS) by Vermunt and Van Rijswijk (1987), the Achievement Motivation Test (AMT) by Hermans (1968/2004) and the Wisconsin Card Sorting Test (WCST) by Grant and Berg (1948). The study noted that successful learners demonstrated cognitive flexibility and positive reactions to anxiety.

Rosiers et al. (2011) studied the interplay between students' self-perceived

communication competence, self-perceived language skills, anxiety and motivation and their interpreting performance. Students' interpreting performance was measured by a sight translation task whereby students' overall interpreting performance and language fluency were assessed. Relevant learner variables were measured by the Self-Perceived Communication Competence (SPCC) questionnaire in McCroskey and McCroskey (1988) and the Attitude/Motivation Test Battery (AMTB) in Gardner (1985a, 1985b). Although the study found no significant relationship between the ID variables and students' sight interpreting performance, factors investigated in the study warrant further exploration.

In addition to adopting existing instruments for measuring ID factors in the fields of psychology, general education and language learning, recently many studies have contributed to the instrument development and specific investigation of individual ID factors in interpreting. For example, the studies of Chiang (2006, 2009, 2010) focused on the measurement and particular investigation of anxiety in interpreting learning, whereas Liao (2002) studied translation learners' beliefs. Furthermore, another topic sporadically dealt with in interpreting learning is learning styles (see Bowen, 1994; Kurz, Chiba, Pastore, & Medinskaya, 2000). Nevertheless, much still needs to be explored relating to IDs in interpreting (see Shlesinger & Pöchhacker, 2011; Yan et al., 2012).

Studies by Yan et al. (2010) and Pan and Yan (2012) also provide great insights into the current study. The former, based on the instrument of the Learner Information Cluster developed specifically for the study, investigated the interrelationship between a battery of learner factors and students' interpreting learning performance in an interpreting program in Hong Kong. Learner factors investigated in the study included gender, self-perceived language abilities, language learning habits, affective factors in interpreting learning (reasons for learning the subject, interest, confidence, etc.) and perceived problems in interpreting. In addition to identifying the significant predictive power of self-perceived second language ability (i.e., English) in learners' interpreting achievement, many of the learner factors investigated were found relevant to the learning of interpreting. Furthermore, Pan and Yan (2012), through the instrument of the Interpreting Learner Variables Section (ILVS) and the Interpreting Learner Problem

Perception Section (ILPPS), investigated the interplay between a group of ID variables and learners' perceived problems in interpreting. The study found variables such as gender, major, family background, self-evaluations of the A and B languages and affective factors such as interest and confidence were relevant to perceived problems of interpreting learners. The study provided a unique perspective to look at the complicated process of interpreting. Nevertheless, comparison with results concerning the actual performance of the learners is required for a comprehensive picture of the relationship between learners and their learning of interpreting.

In conclusion, with the learner-centeredness in interpreting classrooms, ID research has penetrated the study of interpreting learning and provided insightful findings regarding the knowledge of the learning process and interpreting learners. Nevertheless, more efforts are needed in this respect. Furthermore, to date there has been almost no study tackling the interplay between IDs, perceived interpreting performance as well as actual interpreting performance of learners: a study with such a multi-dimensional exploration may generate interesting findings and bridge our knowledge gap regarding the relationship between learners, their perceived world and their actual performance.

2.3 Summary

This chapter provides an overview of the existing research on problem analysis in interpreting, learner perceptions and individual differences in interpreting learning. The definition of problems in interpreting learning is first explored in relation to relevant concepts and notions in SLA, Translation Studies and process- and product-oriented Interpreting Studies. Existing models of problem analysis in both process- and product-oriented interpreting studies, norm-based interpreting studies and classroom and accreditation tests in interpreting are presented. In addition, research at the intersection of language studies and interpreting studies, and the application of self-perceptions and ID research in interpreting learning are reviewed.

According to the literature review in the first section, problem analysis in interpreting has been schematized into a three-level model: the language/form level, the content/meaning level and the presentation/delivery level, each including a set of parameters discussed in separate studies. In particular, Pan and Yan (2012) provided an

account of the three general problem categories in relation to existing schemes in the literature:

> (1) Language problems: relevant to the linguistic insufficiency of the learners, which might be components resulting in the "sign-orientated" renditions in Lörscher (1992), mainly "grammar" problems in Bartlomiejczyk (2007) or most of the "second three most important linguistic factors" in Chiaro and Nocella (2004);
>
> (2) Content problems: relevant to the "translation deviation" by Pym (1992), which might be components relevant to "sense" in Lörscher (1992), mainly concerning the completeness and correctness of the content in interpreting, involving "faithfulness" and "completeness" in Bartlomiejczyk (2007) or most of the "three most important linguistic factors" in Chiaro and Nocella (2004);
>
> (3) Presentation problems: relevant to the presentation of the message, including voice, style, structure, etc., including most of the "least important linguistic factors" in Chiaro and Nocella (2004) or "style" and "presentation" problems in Bartlomiejczyk (2007). (p. 202-203).

The schematization of problem analysis at different levels provides the possibility for a computer-based systematic analysis of a large set of data; additional empirical studies in this field are thus appropriate. Moreover, an increasing number of interpreting corpora of professional interpreters such as the European Parliament Interpreting Corpus (EPIC) (see Monti et al., 2005) have been developed, providing valuable resources for the analysis of professional interpreters' performance. Nevertheless, much remains to do concerning the construction and relevant exploration of interpreting learner corpora. The investigation of these corpora may provide essential understanding into the interlanguage development of interpreting learners and thus provide useful insights into

the learning of interpreting (see Q. Wen & J. Wang, 2009).

As far as the interrelationship between language learning and interpreting learning is concerned, these two practices have been increasingly recognized as related. Moreover, it has been observed that research of the former may benefit the latter in various ways. Learner perceptions have played an important role in interpreting learning with respect to the understanding of learner needs as well as pedagogical and evaluation tasks in interpreting classrooms. However, the interplay of learners' perceptions and their actual interpreting performance has been underexplored, raising questions regarding the specific role of learner perceptions in interpreting. In addition, ID research has penetrated interpreting research in recent years, and increasing attention has been paid to the study of interpreters' "soft skills" such as motivation, anxiety and confidence in interpreting. With the development of new interpreting-specific ID instruments, there is a dearth of exploration concerning the role of IDs in interpreting learning. Moreover, the interplay between IDs, teachers' analysis of interpreting learners' problems and students' self-perceptions has seldom been touched upon, leaving a significant gap concerning the interlanguage development of interpreting learners and the complicated process of interpreting learning.

Chapter 3 Research Methodology

The purpose of this study is to investigate problems in the performance of interpreting learners at tertiary level training programs. Specifically, the study attempts to explore learner problems from three perspectives, i.e., the learners' own perceptions, the teacher's evaluation of their actual performance and evidence provided by a corpus-based analysis. In this chapter, the methodology of the study will be presented, including the research questions, participants, instruments, procedure for data collection and data analysis.

3.1 Research Questions

Based on data gathered from interpreting courses in a university in southeast China, the current study aims to address problems in interpreting from the perspectives of learner perceptions, teacher evaluation and a corpus analysis of students' interpreting work. The research questions include the following:

Research question 1: How do students perceive their problems in interpreting?

Three sub-questions:

a. What is students' perceived occurrence of different interpreting problems?

b. How much do students worry about different interpreting problems?

c. How fatal do students regard different problems to be in interpreting?

Research question 2: How do learner variables affect students' perceptions of problems in interpreting?

Research question 3: What are the factors that contribute to students' interpreting achievement?

Research question 4: Is there any discrepancy between students' perceptions and the teacher's evaluation of their problems in interpreting?

Research question 5: What are the features and patterns of students' under-evaluated problems in interpreting?

Of the five research questions, questions 1 to 3 relate to learners' problem perceptions, question 4 concerns learners' problem perceptions and the teacher's evaluation of their performance and question 5 involves learners' actual performance in interpreting.

3.2 Participants

Convenience cluster sampling was used in this study. Participants of the study included a total of 317 undergraduate students enrolled in interpreting courses (English and Putonghua) in a university situated in southeast China. They were from different classes (usually a class consisted of 20-30 people). Participating students in this study were between the ages of 18 and 24 (Mean (M) = 21.78, Standard Deviation (SD) = 0.48), covering different disciplines (with a majority of participants majoring in the English language) and grade levels (see Table 3.1 for a description of the participants' basic information).

Table 3.1. Basic information of the student participants

		Number (N)	Percentage
Gender	Male	22	6.9
	Female	295	93.1
Year of study	Years 1 & 2	68	21.5
	Years 3 & 4	249	78.6
Major	English	303	95.6
	Non-English[1]	14	4.4
First Language	Putonghua	114	36.3
	Dialects[2]	202	63.1
	Both Putonghua and a dialect	1	0.6
Total		317	100%

Notes:

1. Non-English major students in the study included those studying the following subjects: International Economics and Trade (3), Accounting (2), Administrative Management (1), Environmental Design (1), Pharmaceutics (3), Physics (1), Fluid Mechanics (2) and Internet Engineering (1).

2. There are roughly ten large groups of Chinese dialects, i.e., Mandarin, Jin, Wu, Hui, Xiang, Gan, Hakka (Kejia), Min, Yue, Pinghua (see R. Li, 2001; Cao, 2008; Kurpaska, 2010). Putonghua, the standard national language of the country, was developed based on Beijing Mandarin and northern dialects. Thus dialects in the study refer to the ten dialects compared to Putonghua.

The students who participated in the study were all native Chinese speakers. They had spoken Putonghua for more than 10 years and studied English for at least 6 years before entering the university. All of them had passed the Chinese National College Entrance Examination (CNCEE), which includes three core subjects, i.e., the English language, the Chinese language and Mathematics, as well as two additional courses.

These criteria ensured the satisfaction of minimum requirements for students' language competence for relevant interpreting training.

In addition to student participants, 4 of the university interpreting teachers also participated in the study. All of the participating teachers were female and between 29 and 32 years of age. Their teaching experience in interpreting ranged from 1 to 4 years.

3.3 Instruments

This study was both quantitative and qualitative. A series of instruments, including questionnaires, interview protocols and an elicitation test, were applied to study students' problem perceptions and their actual performance problems. A triangulation of research methods was applied in the study to mitigate and supplement the limitation of the exclusive use of output-oriented translation/interpreting research methods (see Kussmaul & Tirkkonen-Condita, 1995) or the application of any single qualitative or quantitative research method (see Creswell, 1994).

3.3.1 Questionnaires

A questionnaire regarding interpreting learners' learning variables and problem perceptions was designed and developed especially for this study. It was piloted in Pan and Yan (2009) and applied in Pan and Yan (2012). The questionnaire is composed of two sections, i.e., the *Interpreting Learners' Problem Perceptions Survey* (the *ILPPS*) and the *Interpreting Learner Variables Survey* (the *ILVS*) (see Appendix 1 and Appendix 2, respectively).

1) The Interpreting Learners' Problem Perceptions Survey (*ILPPS*)

In addition to questions regarding students' interpreting problems in general, the *ILPPS* includes three questions concerning a battery of 14 problems in interpreting performance at three levels, i.e., the language, content and presentation level (see Table 3.2 for a list of the 14 problems) (cf. Zwischenberger & Pöchhacker, 2010). Questions regarding students' perceptions included their reported frequency of occurrence of the problems (i.e., the "What"), their worry about those problems (i.e., the "Worry") and their judgment of the fatalness of those problems (i.e., the "Fatal") (see Pan & Yan,

2012). Students' responses to these questions were measured according to a five-point Likert scale. The category of problems and codes listed in Table 3.2 was not revealed in the questionnaire but listed in the table for the convenience of grouping student responses. This categorization was also applied to the performance analysis of students' interpreting outputs (see 3.5.3.1 Teacher Evaluation of the Test Data). Moreover, being an open system, the questionnaire used in *ILPPS* allowed an extra item of "Other" for participants to add any problem not included in the current list.

Table 3.2. Problem types and codes used in the study (also see Pan & Yan, 2012)

Problem Category	Problem Type	Problem Code[1]
Language problems	Inaccurate pronunciation (when interpreting from Chinese into English)	Pr (L)
	Failure to produce corresponding word(s)	Wd (L)
	Grammatical problems	Gr (L)
	Incomplete sentences	S (L)
Content problems	Incorrect rendition of numbers and proper names[2]	WN (C)
	Incorrect rendition of words[2]	WW(C)
	Omission of information (missing information)	O (C)
	Overtranslation[3] (adding information)	Ot (C)
	Incomprehensible rendition (overall mistranslation)	Mt (C)
	Misplaced order of information, causing confusion	Or (C)
	Cohesion (lack of connectors, etc.)	C (C)
Presentation problems	Fluency (silent pauses or unnecessary fillers)	F (P)
	Repetition and self-correction	R (P)
	Unnatural tone (including laughter and extra aspirations)	T (P)

Note:

1. Initials were used for the problem types with categories of problem groups indicated in brackets.

2. Pilot interviews with students and faculty (Pan & Yan, 2009) suggested that these two types of problems were treated separately, thus the categorization here followed their perceptions.

3. Following the term used in Pym (1992), "overtranslation" here means the problem of adding unwanted information, which is not included in the original speech, similar to the problem termed as "addition" in Barik (1971).

The problem types in *ILPPS* were developed based on a review of the relevant literature on interpreting problems (see Chapter 2) and a pilot study in Pan and Yan (2009). In the pilot study, individual interviews were conducted with 5 students and 1 teacher, in which they were asked to define problems in interpreting and list as many problem types as possible. The completed list was then compared to and categorized based on relevant schemes in research regarding the product, process and norms in translation/interpreting (e.g. Barik, 1971; Bühler, 1986; Falbo, 1998; Ficchi, 1999; Kalina, 2002; Riccardi, 2002b; Pio, 2003; Chiaro & Nocella, 2004; Bartlomiejczyk, 2007; Chang & Schallert, 2007; Zwischenberger & Pöchhacker, 2010; etc.), as well as existing schemes for translation/interpreting accreditation tests and classroom assessment (e.g. Hartley et al., 2003; C. Yang, 2005; Cai, 2007; Y. Qi, 2008; California Certified, 2010; etc.). The draft list of problems was then piloted to another group of participants (20 students and 1 teacher) enrolled in a similar program. Those participants were not included in the main study. Interviews were conducted with participants after they filled in the questionnaires. The list of problem items was further revised after the pilot study. It was later applied in Pan and Yan (2012).

2) The Interpreting Learner Variables Survey (*ILVS*)

The *ILVS* is a 59-item questionnaire developed based on the background information questionnaire in Yan and Detaramani (2008) and the *Student Characteristics, Process and Academic Skills Survey* (*SCPASS*) in Shaw and Hughes (2006) (also see Brisau et al., 1994; Russo, 2011; Shlesinger & Pöchhacker, 2011). Different from items in the *SCPASS*, many items in the *ILVS* were measured according to a five-point Likert scale. The questionnaire was later modified based on the *Learner*

Information Cluster used in Yan et al. (2010) and the *Interpreting Learner Variables Section* (*ILVS*) in Pan and Yan (2012). There were three sections of the questionnaire, i.e., a section of demographic information, a section on language learning (including language scores, perceived language abilities and language learning habits) and a section on interpreting learning (including perceived interpreting abilities and learning habits, as well as cognitive and affective factors such as confidence and interests in learning the subject, etc.) (see Appendix 2).

The demographic information primarily gathered basic information regarding the participants, such as their gender, age, year of study, hometown, dialect and parents' working area and English level. Most of the items were developed from the background information questionnaires in Yan and Detaramani (2008), Yan et al. (2010) and Pan and Yan (2012) (cf. Zwischenberger & Pöchhacker, 2010).

The section on language learning collected information including students' self-reported language proficiency scores, language learning experience, self-evaluation of language proficiency and their language learning habits. Most of the items were measured on a five-point Likert scale. This section was primarily adapted from the *Learner Information Cluster* of Yan et al. (2010) and the *ILVS* in Pan and Yan (2012). Similar items can also be found in López Gómez et al. (2007) and Rosiers et al. (2011).

The final section concerned students' learning habits, perceived interpreting ability and relevant affective and cognitive factors pertaining to the learning of interpreting. It included questions regarding the length of time that the students studied interpreting (including the duration of their after-class practice), their reasons for learning the subject, their knowledge of the discipline, their interest and confidence in doing interpreting, their interest in absorbing knowledge from different fields, their self-perception of their interpreting ability and their skills relevant to interpreting (i.e., multitasking skills, short-term memory, note-taking ability). The items in this section were primarily developed based on the important factors rated in the *SCPASS* in Shaw and Hughes (2006), including those under the categories of academic habits and skills, information processing skills and personality characteristics. Items were also adapted from the *Learner Information Cluster* in Yan et al. (2010) and the *ILVS* in Pan and Yan (2012) (cf. Brisau et al., 1994; Russo, 2011; Shlesinger & Pöchhacker, 2011).

3) Other questionnaires

An adapted version of the *ILPPS* was used after the elicitation test to look into students' perceptions of their problems in the test specifically, i.e., the *Interpreting Learners' Problem Perceptions Survey* (Post-Test Version) (*ILPPS-PTV*) (see Appendix 3). The same problem list in *ILPPS* was also used with the teachers to investigate their opinions on the problems in the performance of their students, i.e., the *Interpreting Learning Problem Perceptions Survey* (Teacher Version) (*ILPPS-TV*), which also included questions to elicit teachers' responses concerning the influence of relevant learner variables in students' learning of interpreting (see Appendix 4).

3.3.2 Interview Protocols

Supplementary to the questionnaire items, a semi-structured interview protocol (see Appendix 5) was developed for student group interviews based on Pan and Yan (2009, 2012). The purpose of the student interviews was to further probe participants' perceptions of problems and their opinions regarding the influence of relevant learner variables in interpreting. The interview protocol included a section composed of general questions on interpreting and interpreting learning and a second section with more detailed questions on problems that students often encounter, those they worry about and those they regard as fatal, as well as those related to the 14 items in the *ILPPS* (also see Table 3.2).

An adapted version of the interview protocol for students was used in individual interviews with teachers to elicit their perspectives on problems in students' interpreting performance (Appendix 6). The teacher interview protocol aimed at in-depth explorations of items in the *ILPPS-TV* and included a section asking specifically about the teachers' perception of individual differences in students' interpreting performance.

In addition, a third interview protocol (Appendix 7) was developed to collect students' retrospective reflections of their interpreting performance immediately after the elicitation interpreting test. This protocol was used in combination with the *ILPPS-PTV*.

3.3.3 Outcome Measures

Students' interpreting learning outcomes were measured by their final test scores in the interpreting courses they attended. The scores were provided by their course teachers.

Students' English abilities were measured by a battery of self-reported scores, including their English score in the CNCEE, their most recent course grades in Intensive English Reading, Extensive English Reading, English Speaking, English Listening, etc. Although scores such as those of the TEM-8 (National Test for English Majors) oral exam, the grades for the courses Advanced English and Media English were collected from the students' course teachers, these scores were not used in the current study due to the great variance in the number of the students who attended these tests or courses (i.e., only students from certain year(s) attended these tests/courses). On the contrary, all of the students in the interpreting courses took the English exam in the CNCEE before they were enrolled in the university, and the four courses listed above were required irrespective of the students' year and major. While the English exam in the CNCEE primarily measured students' English ability in a comprehensive way upon their entrance to the university (see Yan et al., 2010), the course Intensive English Reading was regarded as the best measure of students' overall English competence in their university study (see Pan & Yan, 2012). In addition, the course grades in Extensive English Reading, English Speaking and English Listening were reflective of students' English ability in the specific areas of reading, speaking and listening.

3.3.4 Elicitation Test

In this study, the test materials were designed to elicit possible problem evidence in students' interpreting performance (see Appendix 8). The test materials were composed of four speeches, two in English and two in Chinese. The use of two speeches in the same language helped to mitigate the contamination of the data if the students were unfamiliar with a certain test topic or extremely nervous about a particular section of the test. At the same time, this approach helped to increase the reliability of the test results. The students were asked to perform consecutive interpreting in the test.

Instructions were given at the beginning of the test. Signals were given at the end of each paragraph for the students to begin interpreting. The students were allowed to

take notes during the test. All of the test materials were played only once to the students. The overall administration of the test took 20 to 30 minutes.

The speeches applied in the test were adaptations of authentic speeches. Table 3.3 presents these references.

Table 3.3. Original source texts for speeches in the elicitation test

Part I (English to Chinese)	Original source texts
Section 1	Speech by Ms. Grace Fu, Senior Minister of State, Ministry of National Development and Ministry of Education, at the Opening Ceremony of the 2nd Asia-Pacific Educational Research Association Conference on 26 November 2008 at the Nanyang Technological University
Section 2	Lecture by Rupert Murdoch, founder and Chairman and CEO of News Corporation, on "The Future of Newspapers" (Third Boyer Lecture) on 16 November 2008
Part II (Chines to English)	Original source texts
Section 1	Speech by Chinese President Hu Jintao at the Asia-Pacific Economic Cooperation (APEC) CEO Summit on 21 November 2008
Section 2	Address by Honorary Doctor of Laws Dr. Justice Patrick Chan at the Installation of President cum Honorary Awards Ceremony on 11 November 2008 at the City University of Hong Kong

All of the original source speeches were delivered less than two months from the test date and covered a range of topics of common interests. These original speeches were administered in a pilot study to a group of 5 students at a similar program (not included in the current study) (Pan & Yan, 2009) and then adapted based on feedback from the students. The adaptations of the reference speeches were made based on the following criteria: 1) adjusting them to the participants' level of study, 2) keeping the test within a feasible length of time, 3) making the speeches textually complete, 4) including difficult points where students' problems can be elicited, and 5) ensuring the comparativeness across different speeches (in length and difficulty level). For example,

in the case of the texts in Part II, the original speech for Section 1 included 3,034 Chinese characters and for Section 2, 1,991 Chinese characters (see Appendix 9). Based on responses to the pilot study, the beginning of President Hu's talk about the important issues in China in the year 2008 and extracts concerning the general situation of university graduates in Hong Kong from Dr. Patrick Chan's address were selected and modified. A topic sentence was added wherever the selected part lacked one (e.g. the extracts from Dr. Chan's address). Connections were made between sentences and words where the written language features were changed. Technical words or terms were eliminated from the extracts, as the test did not aim to test the participants' mastery of certain terminology. The text for Section 1 included a list of three important issues in China in the year 2008. The text for Section 2 included a series of numbers. Both can be problem triggers in interpreting (Gile, 1995a, 2009). The recentness of the test materials and the adaptation of the language can to some extent control the variable of participants' prior access to the test materials.

The final texts, including the reference target texts[6], were then read and furnished by a native teacher of the Chinese language or a native teacher of the English language. The modified versions were tested among another 5 participants in the pilot study (Pan & Yan, 2009). The adapted version of the English texts, with a total of 219 words, was recorded by a native speaker of English from the United States. The speech was recorded at the rate of 108.42 words per minute, i.e., 1.81 words per second, within the comfortable range for interpreters to work (Lederer, 1981, in Chang, 2005, p. 37). Correspondingly, the Chinese texts, a total of 358 characters, were recorded by a native speaker of Putonghua at the rate of 196.7 characters per minute, or 3.28 characters per second. The reserved response time for the interpretation from English into Chinese was set at 2 times of the duration of the source text on average, while that for the interpretation from Chinese into English was set at 2.5 times of the source text on average. This arrangement was made because the Chinese version of the same text usually takes less time and uses more words/characters compared to the English version of the text (see W. Zhong, 2008, p. 110). In addition, although the target text should

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[6] References to the test materials, based on the outputs of professional interpreters, were also included and adapted for comparison.

usually take less than 120% of the time of the original speech (see C. Yang, 2005), the extra time was given in the current test, as the purpose of the test was to elicit problems in students' performance rather than to test their speed of response. The gapped version of the recorded speeches was then digitized for using in a language lab.

3.4 Procedure

The study gathered both quantitative and qualitative data from the participants through the instruments of questionnaires, interview protocols and the elicitation test. Consent was obtained from the participating faculty and students prior to the study (see Appendix 10). To help participants express their views in the most comfortable way, all questionnaires, interviews and test instructions were conducted in Chinese, the participants' mother tongue (see Appendix 1-8).

The piloted questionnaires on interpreting learners' problem perceptions and learning variables, i.e., the *ILPPS* (Appendix 1) and the *ILVS* (Appendix 2), were administered by teachers to student participants in the class. The researcher was present to help explain the questionnaire items in case there was any question or confusion. Random double-checking with students was performed to ensure that the students filled in the questionnaire items with confidence and totally comprehended them. It took the students approximately 10 to 20 minutes to finish the questionnaires. The students were also invited to indicate their intention to participate in the interview study and the elicitation test. To encourage the students' participation in the elicitation test, the researcher, also a practicing interpreter and interpreting teacher, promised to provide an analytical performance report to the students after the test. This report would be helpful to the students, as many of them planned to participate in a local interpreters' accreditation test. This test, which was also regarded as a proof of the participants' English language proficiency, was welcomed by many employers in the Yangtze Delta area.

After the administration of the questionnaires in class, 45 students were chosen to participate in the focus group interviews. Stratified sampling was applied for the selection of participants. The strata were decided based on items of interest for the current study, e.g. gender, family background, language/interpreting competence,

reasons for learning interpreting, etc. Advice from teachers was sought in the selection process to ensure that the selected students represented a variety of learner variables, i.e., the various attributes demonstrated in the *ILVS*. There were 6 interviews in total. Each interview, which included 5 to 9 participants, lasted for approximately 60 minutes. The interviews followed a semi-structured interview protocol (Appendix 5), whereby a monitor was present to ask questions concerning learners' problem perceptions. The interviews were videotaped with the participants' consent.

Teacher participants were also included in the study to gather a supplementary perspective on students' performance in learning interpreting. Individual interviews, which lasted approximately 60 minutes, were conducted with 4 teachers. They were first asked to complete a questionnaire concerning their perceptions of student problems and learner variables (Appendix 4). Relevant questions regarding student problems in interpreting were then explored based on the questionnaire they completed (Appendix 6).

Students' interpreting scores and English language course/test grades (e.g. scores of the TEM-8 oral exam, grades of Advanced English and Media English) were gathered from the teachers as a measure of the students' outcomes in interpreting and language learning.

The students were invited to take part in the elicitation test after completing the in-class questionnaires. Two language/interpreting labs were rented from the university for the test. The students took classes in the labs and thus were familiar with the machines. The labs, which have the capacity for approximately 30 students, allow the digital recording of student voices. Not all of the study participants took part in the elicitation test due to their availability. A total of 77 students participated in the test, and the number was considered sufficient for subsequent text analysis. Participants were randomly divided into 4 groups, each with approximately 20 students. One of the labs was designated as the waiting room, while the other lab was the testing room. Two helpers were recruited for the test administration. Each administration of the test lasted 20 to 30 minutes. The students who finished the test were asked to leave the building immediately so that communication with the rest of the participants could be avoided. In addition, because the test scores would not be calculated into students' course grade and the researcher promised to provide feedback to the participants, the students appeared

willing to display their true performance (to be compared with their perceptions) on the test.

After the test, the students were invited to complete the questionnaire regarding their perceptions of their own performance on the test (Appendix 3). A group of 18 students who also participated in the pre-test interview were invited to stay after the test for the post-test retrospective interview. During the post-test interview, the researcher played back recordings of students' interpretations and provided them with the reference answer to the test questions. Then, students were asked to share their perceptions of their problems on the test retrospectively (see Appendix 7 for the interview protocol).

3.5 Data Analysis

Both quantitative and qualitative analyses of the data were performed in the current study.

3.5.1 Analysis of the Questionnaire Data

The software IBM SPSS (originally, Statistical Package for Social Sciences) 19.0 (IBM, 2011) was applied in the study for relevant statistical analysis.

Data gathered from the student questionnaires (i.e., the *ILVS*, the *ILPPS* and the *ILPPS-PTV*) were coded and placed in one SPSS file. The file also included the achievement scores gathered from the teachers.

Some basic descriptive statistics were run on the data, including the calculation of the Number (N) (valid and missing), Mean (M), Standard Deviation (SD), Range, etc., after which a general profile of the data (e.g. learner profiles, learners' problem perceptions, etc.) could be obtained. A series of inferential statistics (e.g. T-test, ANOVA, correlation, regression, etc.) were later run to test the relationship between different learner variables (e.g. socio-biographic variables, language learning variables and interpreting learning variables) and learners' perceptions of their own problems as well as their influence on learners' achievement in learning interpreting.

The data gathered from the *ILPPS-TV* were not included in the statistical analysis but were coded and entered into an Excel file to be compared with the individual teacher interview data.

3.5.2 Analysis of the Interview Data

Interview data gathered from student groups and individual teachers were transcribed and checked by the researcher, who also translated them from Chinese into English. The transcribed interviews were then coded for thematic analysis following the steps in Yan and Horwitz (2008). Teacher interviews and student interviews were treated separately in the analysis. Two fellow PhD students were invited to participate in the process. The involvement of other people in the interview analysis was an attempt to control the subjectivity that may result if only one person completed the coding (ibid).

During the process of thematic analysis, the researcher first read the transcripts carefully and divided them into small idea units, each of which was then copied to an index card (see Yan & Horwitz, 2008). Initial themes were then assigned to each card by the researcher and her two fellows who helped in the study (Level 1 coding) (ibid). Cards with similar or same themes were then grouped together (Level 2 coding) (ibid). Discussions took place between the researcher and her two fellows whenever there was disagreement on the designation or grouping of themes. The groups were later compared with one another and adjusted until the final labels on the thematic groups could be agreed upon. The procedure for Level 2 coding was then repeated till a higher hierarchy of thematic grouping could be established (Level 3 coding).

The findings from the thematic analysis of the interview data were then compared to the statistical findings of the questionnaire data and incorporated into the overall discussion.

3.5.3 Analysis of the Test Data

The data from the elicitation test were processed by the problem analysis scheme in the *ILPPS* (see Table 3.2 for the coding of the problem types) and with the corpus analysis method. In this study, only data concerning the Chinese-to-English part of the test (Part II) were analyzed. The reason for this analytical choice is that interpreting from the students' A to B language, although controversial in the profession, can render a more comprehensive picture of the possible problems for students and professional interpreters, which suits the objective of the current study. That is, the study seeks to identify problems that differ an interpreted version from a "perfect" target language

version, or to identify the features of "inter-interpreting" (cf. "Interlanguage" in SLA, see section 2.1.1.1 in Chapter 2).

The test data analyzed in this study included 77 participants' consecutive interpreting outputs of the two Chinese speeches, a total of 21,483 seconds, or over 358 minutes (excluding the time of the source speeches). Each audio file lasted for 279 seconds, or 4.65 minutes. The audio files were transcribed and aligned by sentence according to the source texts (see Appendix 11) for the subsequent corpus analysis.

3.5.3.1 Teacher Evaluation of the Test Data

Because interpreting is an oral communication, it is believed that audio and video information should be prioritized over the transcription for any evaluation or analysis purpose, as the latter would be more applicable to the evaluation of a written translation. Therefore, the test outputs were evaluated by the researcher, who listened to the voice files. The researcher is an interpreting teacher and practicing interpreter.

The role played by the researcher in this evaluation process was comparable to interpreting teachers' in grading students' work. The employment of the researcher's judgment as the teacher evaluation in the study had the following pragmatic reasons: 1) the researcher, with many years of experience in university interpreting teaching, had the necessary expertise to grade the students' interpreting work; 2) the use of the researcher instead of students' interpreting course teachers helped protect the confidentiality of the information collected from the student participants, as the grades students obtained in this study would not in any way influence their course grades; 3) the problem analysis scheme was developed by the researcher in this study, and the researcher's assessment was more efficient to use at this stage. Originally, another evaluator was recruited to evaluate and analyze the data. Although high correlation was achieved for the overall evaluation mark, it was not feasible for problem-by-problem analysis because there were too many problem categories, nor would it be necessary given the specific nature of the study. Moreover, it seems that a more consistent picture can be gained with the sole involvement of one researcher. Therefore, it was decided that only the researcher's analysis would be used. Grades and ratings provided by the extra evaluator were used as a reference to the researcher's analysis whenever

uncertainty was encountered. Moreover, the researcher re-evaluated randomly selected student outputs after six months, and the results were compared to the previous marking. The comparison revealed a substantial level of intra-rater reliability of the researcher's analysis.

The researcher first listened to the student work in a comprehensive way and gave a mark to the overall performance of the participant in each interpreted speech based on a 100-point grading scale. Individual marks for participants' performance in each interpreted speech in three individual aspects, i.e., language, content and presentation, were also rendered. A sentence-based problem rating was also performed concerning all 14 types of problems. Each sentence was rated on a five-point Likert scale concerning the occurrence of the 14 possible problem types, from 1 (very few) to 5 (very many). Problems beyond the 14 types could also be added to the scheme. The same problem type ratings were used for text 1 and text 2. The average scores and problem ratings for text 1 and text 2 were calculated to represent students' overall performance in the Chinese-to-English interpreting portion of the test. The researcher placed the scores and ratings in an Excel file during the evaluation process (see Appendix 12 for a sample table with the scores and problem ratings).

The results of the researcher's evaluation were then placed in the same SPSS file with the questionnaire data. Paired Samples Tests were computed to determine whether there was any difference between students' self-perceptions and the researcher's (teacher's) evaluation concerning participants' problems in the elicitation test.

3.5.3.2 Corpus Analysis of the Test Data

With the growing recognition of its advantages, the corpus linguistic approach has been increasing applied in various fields such as language assessment (e.g. Alderson, 1996), the study of learner language (e.g. Granger, 1998; Granger, Hung, & Petch-Tyson, 2002; Gui & Yang, 2002) and the study of features of interpreted language (e.g. Setton, 2011; Shlesinger, 2008). According to Leech (1992), the approach of computer corpus linguistics has four distinguishable features:

(1) Focus on linguistic performance, rather than competence;

(2) Focus on linguistic description, rather than linguistic universals;

(3) Focus on quantitative, as well as qualitative models of language;

(4) Focus on a more empiricist, rather than rationalist view of scientific inquiry. (p. 107)

To obtain a more objective and systematic picture of students' performance in the elicitation test, the corpus-based analysis method was applied in this study. Corpus analysis tools can provide some basic information concerning the general texture of the data. In the current study, a database composed of students' outputs in the elicitation test was constructed. Given the homogeneity of the text production context, i.e., the interpreting elicitation task, and the possibility of treating it as a specialized corpus – i.e., only two topics were covered in the study to control variables involved in problem productions – the database can be regarded as sufficient in size for relevant corpus analysis according to de Haan (1992)[7].

The test output data were first transcribed into formats readable by relevant corpus analysis software. Linguistic annotations were then added to the transcriptions. A series of procedures were subsequently run to retrieve relevant features of the learners' outputs at different levels (see Thompson, 2005).

1) Transcription

To process the test data with corpus analysis tools such as Wordsmith, the test outputs were transcribed into computer readable formats.

First, the basic content of the audio files, i.e., utterances by the students, were transcribed after listening to the files repeatedly. The transcribed texts were then saved in the format of TXT files, each audio taking one file, named by the coding of individual

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[7] According to de Haan (1992), the optimum size for a corpus varies depending on the linguistic investigation undertaken by specific studies. Generally speaking, 20,000 words may be sufficient for a specialized and homogeneous corpus. Although Granger (1998) states that a minimum of 200,000 words may be needed to build a corpus of second language learners, given the limited number of interpreting students compared to language students and the specific purpose of this study, it is believed that the number 20,000 can satisfy the research needs at this stage (cf. a total of 20,846 word tokens in the current database; see section 4.3.1, Chapter 4).

students, i.e., S1, S2, S3...S77, where "S" stands for "student". Those are the "raw data" of the database. The transcribed files were then proofread and checked against the audio files.

Following the TEI conventions (Sperberg-McQueen & Burnard, 2004), unique features of spoken text such as pauses, vocalized non-lexical phenomena (e.g. coughs, laughs, etc.), as well as shifts or changes in vocal quality (e.g. change to a soft voice, a possible indication of lack of confidence) were also included in the transcription. Because only audio materials were collected in the current study, only a few oral features of particular interest to this study were collected, most of which were transcribed based on a scheme adapted from those used in existing corpora of Chinese learners' oral or interpreted speeches (e.g. Wen, L. Wang, & Liang, 2005; Wen & J. Wang, 2009). Features such as pause fillers, silent pauses, small voice, indistinguishable words, extra-linguistic information and errors such as grammar mistakes and pronunciation errors were transcribed following certain formats (see Appendix 13 for the transcription scheme used in the current study). The transcriptions tagged with oral features were later checked for a second time against the audio files.

For the purpose of analyzing learners' performance at the presentational level, the temporal features were included in the transcription. The time of each utterance/sentence was recorded with the accuracy rate to the second. Those features were placed before each transcribed utterance in angle brackets.

2) Markup and Annotation

Metadata were later added to the transcribed data, which were also annotated with linguistic features.

Metadata added in the current study were primarily descriptions of the elicitation test and test participants. The data type, i.e., consecutive interpreting (CI), was marked first, followed by the identifying information of the test participants and question numbers. Other information, such as the gender of the participant and the score for individual questions, were also marked (see Appendices 13 and 14).

Each data file was aligned according to the division of sentences in the source and reference text (see Appendix 11). A sentence number was marked at the beginning of each sentence (see Appendices 13 and 14).

The annotation of erroneous interpreting outputs was performed manually. In this section, illustrations will be provided on the annotation of two problem types, i.e., inaccurate pronunciation and repetition and self-correction.

Annotation of inaccurate pronunciation

A review of Corpus-based Interpreting Studies (CIS) indicates that there is hardly any scheme applicable for the particular annotation of inaccurate pronunciation in the current study (see Setton, 2011). Wen and J. Wang (2009), perhaps the only corpus of interpreting learners' outputs in the language pair of Chinese and English, provides valuable insights into the primary marking of inaccurate pronunciation but does not offer any specific annotation scheme. Existing annotation schemes of pronunciation errors provided in corpora of spoken interlanguage produced by Chinese EFL (English as a Foreign Language) learners (e.g. H. Yang & Wei, 2005; W. Wu & Jiang, 2008; Xiao & Xiang, 2008), however, offer very detailed systems for the coding and analysis of Chinese learners' English interlanguage at the phonetic level. Such detailed annotations may not be suitable for the research of pronunciation problems of interpreting students, the purpose of which is not the development of phonological pedagogy for second/foreign language learners but the enhancement of students' interpreting performance in general.

Based on Celce-Murcia, Brinton and Goodwin (1996), the sound system of language can be divided into the segmental and suprasegmental level: the former includes vowels and consonants, whereas the latter pertains to "those phenomena that extend over more than one sound segment" (p. 35), which usually involves stress[8] (both at the word and sentence level) and intonation. Of these language sound subsystems, stress at the sentence level and intonation are usually regarded as of greater interest to the investigation of problems at the delivery level in interpreting studies (see Shlesinger,

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[8] The word "stress" used in this context refers to the emphasis placed on certain syllabus(es) in a word (i.e. word stress) or certain word(s) in a sentence (i.e., sentence stress) (see Celce-Murcia et al., 1996).

1994; Ahrens, 2005; Pradas Macías, 2006; Gile, 2009; Holub, 2010; Zwischenberger, 2010; Zwischenberger & Pöchhacker, 2010) and therefore not included in the annotation of the problem type of inaccurate pronunciation in the current study. As a result, the annotation of inaccurate pronunciation in this study included problematic vowels and consonants at the segmental level and stress problems at the word level. A subsystem was borrowed from H. Yang and Wei (2005) and Beghoul (2007), including errors of substitutions, insertions and omissions under the problematic categories of vowels and consonants, plus the category of problematic vowels + consonants. The final coding scheme for the annotation of pronunciation problems is presented in Table 3.4 (see Appendix 15 for examples of each type of pronunciation problems in the database).

Table 3.4. The coding scheme of pronunciation problems used in the current study

Symbols	Meaning		
<p>	Pronunciation problems		
Symbols	Meaning	Symbols	Meaning
<p_v>	Vowel problems	<p_v_w>	Substitutions of vowels
		<p_v_a>	Insertions of vowels
		<p_v_d>	Omissions of vowels
<p_c>	Consonant problems	<p_c_w>	Substitutions of consonants
		<p_c_a>	Insertions of consonants
		<p_c_d>	Omissions of consonants
<p_b>	Both vowel and consonant problems	<p_b_w>	Substitutions of both vowels and consonants
		<p_b_a>	Insertions of both vowels and consonants
		<p_b_d>	Omissions of both vowels and consonants
<p_s>	Word-level stress problems		

Annotation of repetition and self-correction

In contrast to the annotation of pronunciation problems, there have been a few studies regarding repetition and self-corrections in product-oriented interpreting studies (e.g. Tissi, 2000; Petite, 2005; Bendazzoli et al., 2011; Dai, 2011), even some that place a special focus on the analysis of student-produced consecutive interpreting data (e.g. Mead, 2000; Dai, 2011). These studies provide great insights into the annotation scheme

used for the current study. In the analysis scheme of Tissi (2000), repetitions and self-repairs, termed as "interruptions", were grouped under the general delivery problem of non-fluencies, which included another two parallel sub-categories of silent pauses and filled pauses (p. 112). Interruptions in the study were then classified into repeats, restructuring and false starts. Petite (2005), however, studied specific repairs in simultaneous interpreting adapting from Levelt's (1983) taxonomy of repairs in spontaneous speech, categorizing repairs into post-articulatory appropriateness repairs, post-articulatory error repairs, post-articulatory D (different) repairs and mid-articulatory repairs. The study of Dai (2011), similar to Tissi (2000), included the analysis of pauses (silent and filled pauses) and self-repairs (also adapting the system of Levelt (1983)). Bendazzoli et al. (2011), although about simultaneous interpreting, provided the only scheme pertaining to the study of both repetition and self-repair in a corpus-based study. Disfluencies [9] investigated in their study included two sub-categories, i.e., mispronounced words (repetitions) and truncated words (self-correction). Additional information, such as whether the speaker successfully repaired the segments, subtypes of the speech errors and the causes of the disfluencies, were included in the coding (see Table 3.5).

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[9] The word disfluency in Bendazzoli et al. (2011) is used in a different sense from that in this study, in which disfluency refers to silent pauses or unnecessary fillers.

Table 3.5. Types of speech errors and causes of disfluencies in Bendazzoli et al. (2011, p. 292).

Types of speech errors
PHONOLOGICAL ANTICIPATION to implement the two thousand and two **antif- anti-trafficking** framework decision to catch the criminal gangs
LEXICAL ANTICIPATION I mean comparing that with **nati- ehm publie ehm investments nationally** it's it's it's very little
PHONOLOGICAL PERSEVERATION the Council also received ehm reached a general ehm approach on the **apr- proposed** regulation
APPROXIMATION but they are certainly not **te- te- terminal** ehm and they can in our judgment be addressed
OTHER so for the next three years we have **autho- we have certification** of projects that have actually being carried out
Causes of disfluencies
LEXICAL SHIFT so for the next three years we have **autho- we have certification** of projects that have actually being carried out
SYNTACTIC SHIFT the population **getti- the growing** of the population
ARTICULATION so I think there are two aspects // first of all **w- we're** stressing those elements which we think will ease
STALLING what we're doing with a reduction of **con- ehm contaminating** emissions
OTHER is the microphone **wor-** // well thank you ehm President and ehm welcome to our Commissioner David Byrne

The annotation scheme of Bendazzoli et al. (2011) was adapted to annotate students' interpreting outputs in the current database. Given the differences between the two databases, i.e., simultaneous interpreting vs. consecutive interpreting and student interpreters vs. professional interpreters, unnecessary subtypes were excluded or merged (e.g. subtypes of the original speech errors including phonological anticipation, phonological perseveration and approximation were combined into the phonological level errors) and new types were added to the current scheme (e.g. the adding of a new subtype of syntactical level speech errors). Although the category of "other" was originally kept in the annotation scheme, it was found that no extra subtypes could fall

into this category. The final coding scheme for repetitions and truncated words are displayed in Table 3.6 and Table 3.7, respectively.

Table 3.6. The coding scheme of repetitions used in the current study

Symbols		Meaning	Examples from the current database
1st layer:	<r>	Repetitions	
2nd layer:	<y>	Completed	China has has<r><r_y_l_a> (er) many things (er)
	<n>	Not completed	we have succeeded ... we have<r><r_n_s_a> ss-(en) ... we have
3rd layer:	<p>	Phonological level	decrease<deeprease><p_c_w><r><r_n_p_a> (en) decrease to (en)
	<l>	Lexical level	now we talk about the the<r><r_y_l_a> college students
	<s>	Syntactical level	I'm glad to I'm glad to<r><r_y_s_a> here to (en) with the
4th layer:	<l>	Lexical shift	students come from (en) come to<r><r_y_s_l> Hong-Kong (exhale).
	<s>	Syntactical shift	I am very it's my<r><r_y_s_s> great pleasure to meet
	<a>	Articulation	I am it's (er) it's<r><r_y_s_a> my pleasure (er) to
	<t>	Stalling (gaining time for the articulation)	opportunity, I ... (en) I<r><r_y_l_t> ... give my than-(er)
Sample coding combinations (24)						
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<r_y_p_l>	<r_y_l_l>	<r_y_s_l>	<r_n_p_l>	<r_n_l_l>	<r_n_s_l>
<r_y_p_s>	<r_y_l_s>	<r_y_s_s>	<r_n_p_s>	<r_n_l_s>	<r_n_s_s>
<r_y_p_a>	<r_y_l_a>	<r_y_s_a>	<r_n_p_a>	<r_n_l_a>	<r_n_s_a>
<r_y_p_t>	<r_y_l_t>	<r_y_s_t>	<r_n_p_t>	<r_n_l_t>	<r_n_s_t>

Table 3.7. The coding scheme of truncated segments used in the current study

Symbols		Meaning	Examples from the current database
1st layer:	<t>	Truncated segments	
2nd layer:	<y>	Completed	their standards are (en) de-<t><t_y_p_a> decreased. Their Chinese
	<n>	Not completed	than the Chi- than the da-<t2><t_n_l_a> and the foreign fore-
3rd layer:	<p>	Phonological level	you, to to discuss the eco-<t><t_y_p_a> economic problems an
	<l>	Lexical level	the students come to Xiang<t><t_y_l_l> Hong-Kong ...
	<s>	Syntactical level	and other people who suppor-<t><t_y_s_a> who support us ...
4th layer:	<l>	Lexical shift	beginning of the year Chin-<t><t_y_l_l> the Chinese people
	<s>	Syntactical shift	(en) today I am very ha<t><t_y_s_s> (en) I have the great honor to
	<a>	Articulation	Now let we talk about frien-<t><t_y_p_a> friends in Hong-Kong
	<t>	Stalling (gaining time for the articulation)	gentlemen, and friends, to-<t><t_y_p_t> (en) today I'm (um)

Sample coding combinations (24)					
<t_y_p_l>	<t_y_l_l>	<t_y_s_l>	<t_n_p_l>	<t_n_l_l>	<t_n_s_l>
<t_y_p_s>	<t_y_l_s>	<t_y_s_s>	<t_n_p_s>	<t_n_l_s>	<t_n_s_s>
<t_y_p_a>	<t_y_l_a>	<t_y_s_a>	<t_n_p_a>	<t_n_l_a>	<t_n_s_a>
<t_y_p_t>	<t_y_l_t>	<t_y_s_t>	<t_n_p_t>	<t_n_l_t>	<t_n_s_t>

Moreover, each repeated or truncated word or word segment was coded with <r> and <t> for the calculation of influenced tokens in the current database. Words repeated or truncated more than once were coded with the time of their occurrence, e.g. <r>, <r2>, <r3> ... <rn>. In this way, it could be determined how many times in maximum that students fixed a repeated or truncated word (segment).

3) Corpus Analysis

Once the data were transcribed and annotated, a series of corpus analysis procedures were applied to process the data with the application of Wordsmith 5.0 (Scott, 2008).

Some basic statistics were first run to provide a brief overview of the features of the learner outputs in the database, including the type/token ratio, word/sentence length profile, high frequency words, etc. A comparison between the reference target text and students' individual outputs were also employed to provide supplementary data. A list of keywords in the database was also generated. The frequency and collocations of the problematic segments were then calculated and discussed.

3.6 Summary

This chapter provides a description of the study's research methods. An introduction to the research questions, participants, instruments and procedures was given. With the collection of data from multiple channels, the study examined learner problems from different dimensions and with different perspectives. The study applied a triangulation of research methods, i.e., a quantitative investigation of the questionnaire data, qualitative exploration of the interview data and a combination of both qualitative and quantitative analysis of the data from the elicitation test. The findings gathered from the different research methods were compared and integrated into the overall analysis.

Chapter 4 Results

This chapter presents the findings gathered from the questionnaire analysis, interview data analysis and results of the teacher evaluation and corpus analysis of the test data. Research questions one to four were addressed by statistical analysis of the questionnaire data and the teacher's evaluation of students' interpreting outputs, as well as thematic analysis of the interview data. Research question five was addressed by the corpus-based analysis[10] of the learner outputs.

4.1 Quantitative Research Findings from the Questionnaire Analysis

4.1.1 Learners' Perceptions of Problems in Interpreting

Based on the data gathered from the *ILPPS*, learners' self-perceived quantity of problems in interpreting had a mean score of 3.53 (SD=.624, N=316) on a five-point Likert scale, where 1 means "very few", 5 means "very many" (see Appendix 1). Although with a mean score comparatively lower than that of the self-perceived quantity of problems, learners' self-perceived severity of problems in their interpreting indicates a high level (M=2.95, SD=.617, N=312) on a five-point Liker scale, where 1 means "very low" and 5 means "very high" (also see Appendix 1).

Figure 4.1 provides an overview of students' perceptions of problems regarding the three aspects of language (form), meaning (content) and delivery (presentation) in interpreting. According to the figure, students regarded delivery problems as most common in their interpreting performance, but their greatest worry was problems in meaning, where their greatest concern of fatalness lied.

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[10] According to Leech (1992), the approach of corpus linguistics is both quantitative and qualitative. Findings of the corpus-based analysis in this study were therefore neither grouped in the section of quantitative findings or that of qualitative findings but reported in a separate section.

Figure 4.1. Students' perceptions of problems regarding the three aspects of language, meaning and delivery
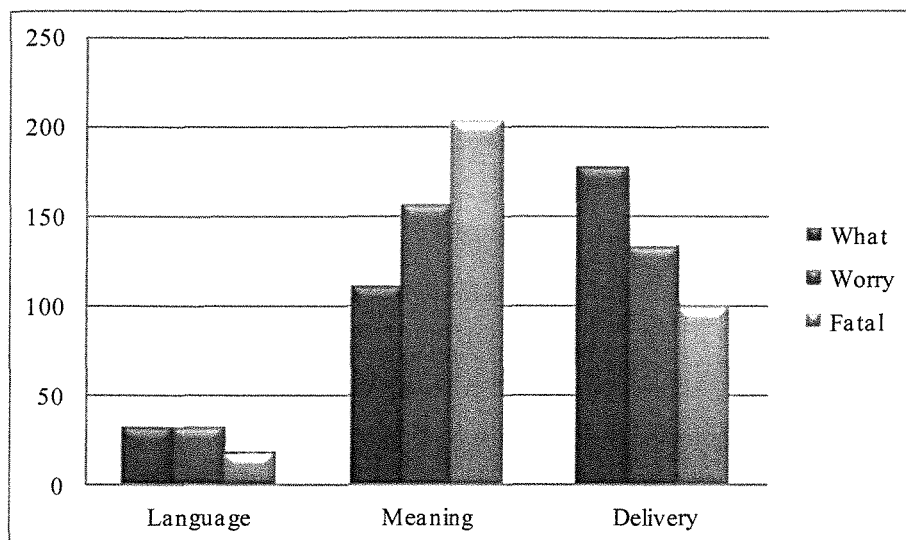
Notes:

1) N=317

2) "What", "Worry" and "Fatal" indicate responses for the three sub-questions in the *ILPPS*, i.e., 1) What is students' perceived occurrence of different interpreting problems? 2) How much do students worry about different interpreting problems? 3) How fatal do students regard different problems to be in interpreting?

Figure 4.2 displays the means of students' ratings of their perceptions regarding individual problems in interpreting, including their perceived occurrence of and worry about these problems as well as their perceived fatalness of them.

Figure 4.2. Learners' perceptions of individual problems in interpreting (What, Worry and Fatal)
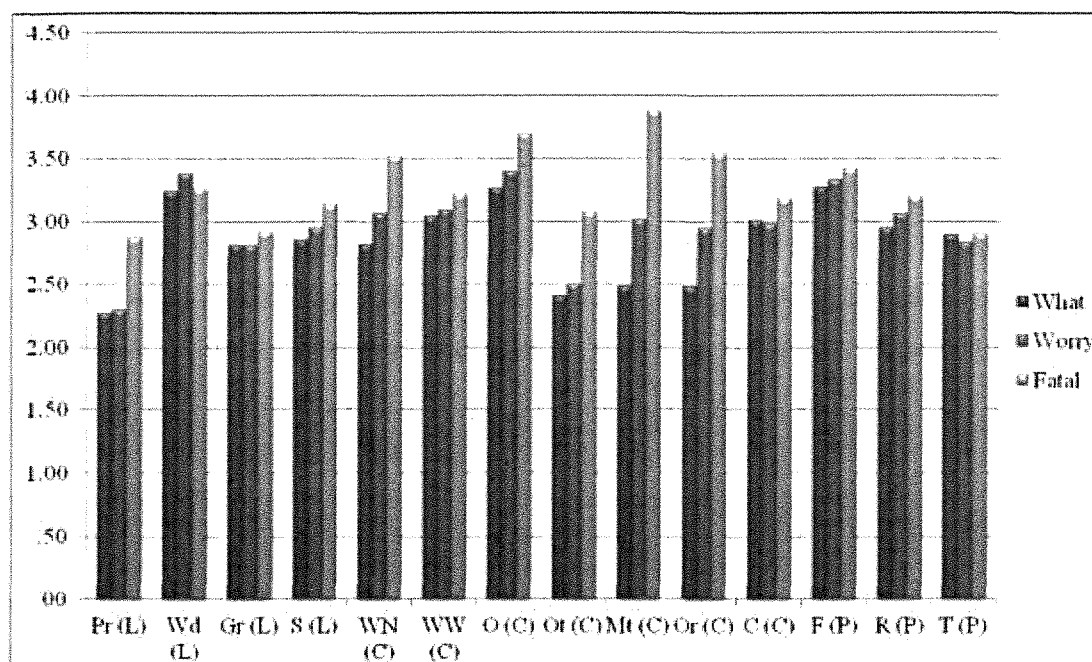
		Pr (L)	Wd (L)	Gr (L)	S (L)	WN (C)	WW (C)	O (C)	Ot (C)	Mt (C)	Or (C)	C (C)	F (P)	R (P)	T (P)
What	M	2.27	3.23	2.81	2.85	2.82	3.04	3.26	2.41	2.49	2.48	3.00	3.27	2.95	2.90
	SD	.712	.831	.815	.832	.885	.768	.838	.866	.870	.849	.864	.949	.893	.964
Worry	M	2.29	3.38	2.80	2.94	3.06	3.09	3.40	2.50	3.01	2.94	2.97	3.33	3.06	2.83
	SD	.967	.939	.875	.905	.998	.834	.947	.871	1.034	.956	.848	.942	.878	.950
Fatal	M	2.88	3.26	2.91	3.13	3.51	3.22	3.70	3.07	3.88	3.54	3.18	3.42	3.20	2.90
	SD	1.041	.885	.906	.942	1.060	.848	.946	.953	1.032	1.021	.837	.909	.813	.903

Notes:

1) N=317;

2) See Table 3.2 for a list of the problem codes in the figure.

According to Figure 4.2, the problem most often encountered by students was "disfluency" (M=3.27, SD=.949) at the presentation level, followed by "omission of information" (M=3.26, SD=.838) at the content level, which, in turn, was succeeded by "failure to produce corresponding words" (M=3.23, SD=.831) at the language level.

A similar pattern was detected for problems of greatest concern by students, with "omission of information" (M=3.40, SD=.947) highest ahead of "failure to produce corresponding words" (M=3.38, SD=.939) and "disfluency" (M=3.33, SD=.942).

As to perceived fatalness of the problems, "incomprehensible rendition" at the content level scored the highest (M=3.88, SD=1.302). This was followed by "omission of information" (M=3.70, SD=0.946), "misplaced order of information" (M=3.54, SD=1.021) and "incorrect rendition of numbers and proper names" (M=3.51, SD=1.060) at the same level. The most fatal problems at the language and presentation levels were "failure to produce corresponding words" (M=3.26, SD=.885) and "disfluency" (M=3.42, SD=.909) respectively.

4.1.2 Learner Variables and Perceptions of Problems in Interpreting

The following section presents findings regarding the interrelation between learner variables and perceived problems in interpreting. Learner variables in this study refer to: 1) socio-biographic variables, including gender, dialect and family background; 2) learners' language learning variables, including their language competence (perceived and actual) and language learning habits; 3) learners' interpreting learning variables, including affective and cognitive factors in interpreting learning and interpreting competence (perceived and actual).

4.1.2.1 Socio-biographic Variables and Problem Perceptions in Interpreting

1) Gender and the learning of interpreting

To understand if there was any significant difference between male and female students' in their problem perceptions, a series of independent samples T-tests was run. Although no significant difference was found between male and female students in their problem perceptions, a significant difference was detected regarding their interpreting course grades. As can be seen from Table 4.1, female students scored significantly higher than male students in interpreting courses.

Table 4.1 Differences between male and female students' interpreting achievement

Independent Samples Test

	M	N	SD	Sig. (2-tailed)
Female students' interpreting achievement score	78.85	295	7.66	
Male students' interpreting achievement score	73.05	21	9.12	
Female students' interpreting achievement score – Male students' interpreting achievement score	5.80**			.001

Note: ** significant at p< .01 (2-tailed).

2) Dialect and problem perceptions in interpreting

Independent samples T-tests were computed to test if there was any significant difference between participants whose first language is Putonghua and those whose first language is a dialect other than Putonghua. As shown in Table 4.2, there were significant differences between these two groups on their reported problem of "incorrect rendition of numbers and proper names" and that of "omission of information". The group with Putonghua as their first language reported significantly fewer problems in these two areas compared to those whose first language is a dialect.

Table 4.2. Differences between students whose first language is Putonghua and those whose first language is a dialect on reported problems in interpreting

	M	N	SD	Sig. (2-tailed)
Reported problem of incorrect rendition of numbers and proper names by those whose first language is Putonghua	2.67	114	.816	
Reported problem of incorrect rendition of numbers and proper names by those whose first language is a dialect	2.90	202	.914	
Reported problem of incorrect rendition of numbers and proper names by those whose first language is Putonghua – Reported problem of incorrect rendition of numbers and proper names by those whose first language is a dialect	-.23*			.024
Reported problem of omission of information by those whose first language is Putonghua	3.12	113	.788	
Reported problem of omission of information by those whose first language is a dialect	3.35	202	.857	
Reported problem of omission of information by those whose first language is Putonghua – Reported problem of omission of information by those whose first language is a dialect	-.23*			.016

Note: * significant at p< .05 (2-tailed).

Table 4.3 shows that the group of students with Putonghua as their first language concerned less about the problem of "cohesion" compared to the group of students with other dialects as their first language.

Table 4.3. Differences between students whose first language is Putonghua and those whose first language is a dialect on worry about cohesion

Independent Samples Test

	M	N	SD	Sig. (2-tailed)
Worry about cohesion by those whose first language is Putonghua	2.84	113	.819	
Worry about cohesion by those whose first language is a dialect	3.05	201	.859	
Worry about cohesion by those whose first language is Putonghua – Worry about cohesion by those whose first language is a dialect	-.21*			.036

Note: * significant at p< .05 (2-tailed).

3) Family background and problem perceptions in interpreting

Parents' working areas and problem perceptions in interpreting

Parents' working areas were divided into seven categories: no job, agriculture, industry, transportation, commerce, education and government. ANOVA was used to examine whether there were significant differences in students' problem perceptions by these groups. Almost no significant difference was found except for students' reported problem of "omission of information" $(F$ $(6,$ $306)$ $=$ $2.976,$ p $=$ $.008)$ and their consideration of fatalness concerning "misplaced order of information" $(F$ $(6,$ $305)$ $=$ $4.538, p = .000)$ among the seven working areas of fathers.

Parents' English levels and problem perceptions in interpreting

In order to test the relationship between students' problem perceptions and their parents' English levels, a series of Pearson product-moment correlations was computed. Table 4.4 indicates that father's English level was significantly and negatively correlated with student's reported problem of "incorrect rendition of numbers and proper names". That is to say, the higher a father's English level, the fewer the student's reported problems of "incorrect rendition of numbers and proper names", and vice versa.

Table 4.4. Correlation between father's English level and reported problem of incorrect rendition of numbers and proper names

	Father's English level
Reported problem of incorrect rendition of numbers and proper names	-.130*
	N=316

Note: * significant at p < .05 (2-tailed).

Table 4.5 suggests that a significant negative correlation was found between father's English level and student's worry about the problem of "omission of information" in interpreting.

Table 4.5. Correlation between father's English level and worry about omission of information

	Father's English level
Worry about omission of information	-.114*
	N=314

Note: * significant at p < .05 (2-tailed).

As indicated in Table 4.6, mother's English level was also found to be significantly and inversely correlated with student's reported problems of "incomplete sentences", "incorrect rendition of numbers and proper names", "incorrect rendition of words", "omission of information" and "cohesion".

Table 4.6. Correlation between mother's English level and reported problems

	Mother's English level
Reported problem of incomplete sentences	-.112*
	N=315
Reported problem of incorrect rendition of numbers and proper names	-.178**
	N=315
Reported problem of incorrect rendition of words	-.131*
	N=315
Reported problem of omission of information	-.136*
	N=314
Reported problem of cohesion	-.144*
	N=315

Note: ** significant at p < .01 (2-tailed); * significant at p < .05 (2-tailed).

Table 4.7 displays that significant negative correlations were identified between mother's English level and student's worry about the problems of "incomplete sentences", "incorrect rendition of numbers and proper names" and "incorrect rendition of words".

Table 4.7. Correlation between mother's English level and problems worried about

	Mother's English level
Worry about incomplete sentences	-.120*
	N=313
Worry about incorrect rendition of numbers and proper names	-.135*
	N=313
Worry about incorrect rendition of words	-.133*
	N=313

Note: * significant at p < .05 (2-tailed).

Table 4.8 shows that mother's English level was significantly and inversely related to student's consideration of fatalness concerning "failure to produce corresponding words".

Table 4.8. Correlation between mother's English level and consideration of fatalness concerning failure to produce corresponding words

	Mother's English level
Consideration of fatalness concerning failure to	-.154**
produce corresponding words	N=313

Note: ** significant at $p < .01$ (2-tailed).

Figure 4.3 gives a summary of the relationship between socio-biographic variables and learners' problem perceptions at different levels identified in this section. As displayed in the figure, socio-biographic factors including dialect and parents' English levels were significantly related to learners' problem perceptions regarding language and content in interpreting, in particular problems at word, sentence as well as beyond sentence levels.

Figure 4.3. Summary of significant statistics regarding the relationship between socio-biographic variables and learners' problem perceptions at different levels
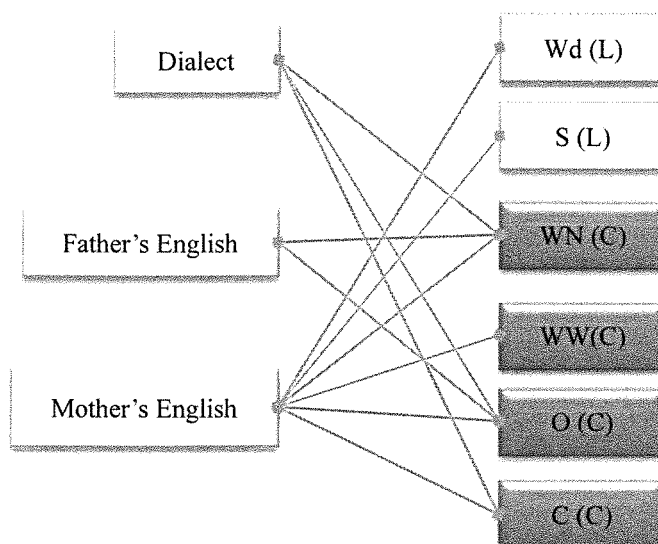
Note: See Table 3.2 for the coding of the problem types in the middle.

4.1.2.2 Language Learning Variables and Problem Perceptions in Interpreting

1) Language competence and problem perceptions in interpreting

The interrelationship between students' language competence and their problem perceptions in interpreting was examined. Both students' language test scores and perceived language abilities were used.

English test scores and problem perceptions in interpreting

The student's English score on the CNCEE was found to be correlated with problem perceptions at different levels. Table 4.9 shows that negative correlations were found between student's CNCEE English score and reported problems of "inaccurate pronunciation", "grammatical problems", " incomplete sentences", "incorrect rendition of numbers and proper names", "omission of information", "incomprehensible rendition", "misplaced order of information" and "fluency".

Table 4.9. Correlation between student's CNCEE English score and reported problems

	English score on CNCEE
Reported problem of inaccurate pronunciation	-.133*
	N=307
Reported grammatical problems	-.211**
	N=306
Reported problem of incomplete sentences	-.120*
	N=307
Reported problem of incorrect rendition of numbers	-.146*
and proper names	N=307
Reported problem of omission of information	-.114*
	N=306
Reported problem of incomprehensible rendition	-.151**
	N=307
Reported problem of misplaced order of information	-.198**
	N=306
Reported problem of fluency	-.114*
	N=306

Note: ** significant at p < .01 (2-tailed); * significant at p < .05 (2-tailed).

Also, the student's English score on the CNCEE was found to be significantly correlated with the worries about "inaccurate pronunciation" and "misplaced order of information" in an inverse manner (see Table 4.10).

Table 4.10. Correlation between student's CNCEE English score and problems worried about

	English score in CNCEE
Worry about inaccurate pronunciation	-.126*
	N=307
Worry about misplaced order of information	-.129*
	N=305

Note: * significant at p < .05 (2-tailed).

Furthermore, the English score on the CNCEE was detected as having a significant negative relationship with student's consideration of fatalness concerning "inaccurate pronunciation" (see Table 4.11).

Table 4.11. Correlation between student's CNCEE English score and consideration of fatalness concerning inaccurate pronunciation

	English score in CNCEE
Consideration of fatalness concerning inaccurate pronunciation	-.143*
	N=305

Note: * significant at p < .05 (2-tailed).

Table 4.12 indicates that significantly inverse correlations were found between student's most recent grade in Intensive English Reading and problem perceptions including reported "grammatical problems", worry about "grammatical problems" and worry about "overtranslation".

Table 4.12. Correlation between student's most recent grade in Intensive English Reading and problem perceptions

	Most recent grade in Intensive English Reading
Reported grammatical problems	-.172*
	N=298
Worry about grammatical problems	-.115*
	N=297
Worry about overtranslation	-.128*
	N=298

Note: * significant at p < .05 (2-tailed).

Table 4.13 suggests that student's most recent grade in Extensive English Reading was significantly and negatively associated with reported "grammatical problems" and the problem of "incomplete sentences".

Table 4.13. Correlation between student's most recent grade in Extensive English Reading and problem perceptions

	Most recent grade in Extensive English Reading
Reported grammatical problems	-.142*
	N=287
Reported problem of incomplete sentences	-.120*
	N=288

Note: * significant at p < .05 (2-tailed).

As shown in Table 4.14, student's most recent grade in Spoken English was significantly and negatively correlated with reported problems of "inaccurate pronunciation", "grammatical problems" and "misplaced order of information". It was also found to have a significant negative relationship with the worry about "inaccurate pronunciation".

Table 4.14. Correlation between student's most recent grade in Spoken English and problem perceptions

	Most recent grade in Spoken English
Reported problem of inaccurate pronunciation	-.120*
	N=292
Reported grammatical problems	-.126*
	N=291
Reported problem of misplaced order of information	-.116*
	N=291
Worry about inaccurate pronunciation	-.122*
	N=292

Note: * significant at p < .05 (2-tailed).

Table 4.15 shows that student's most recent grade in English Listening was found to be significantly related to the reported problems of "incomplete sentences", "overtranslation" and "misplaced order of information". It was also found to be significantly correlated with the worry about "overtranslation".

4.15. Correlation between student's most recent grade in English Listening and problem perceptions

	Most recent grade in English Listening
Reported problem of incomplete sentences	-.127*
	N=288
Reported problem of overtranslation	-.147*
	N=287
Reported problem of misplaced order of information	-.133*
	N=287
Worry about overtransaltion	-.175**
	N=287

Note: ** significant at p < .01 (2-tailed); * significant at p < .05 (2-tailed).

Perceived English language abilities and problem perceptions in interpreting

As shown in Table 4.16, students' self-perceived English language abilities (including their English language abilities in general and in sub-areas of listening, speaking, reading, writing, pronunciation, vocabulary and grammar) were found to be significantly and negatively correlated with most of their reported problems in interpreting.

Table 4.16. Correlation between student's self-perceived English language abilities and reported problems

Self-perceived English abilities	General	Listening	Speaking	Reading	Writing	Pronunciation	Vocabulary	Grammar
Reported problem of inaccurate pronunciation	-.279**	-.247**	-.274**	-.231**	-.167**	-.430**	-.221**	-.163**
	N=311	N=316	N=316	N=317	N=317	N=317	N=317	N=317
Reported problem of failure to produce corresponding words	-.157**	---	-.213**	---	-.157**	---	-.211**	-.184**
	N=311	---	N=316	---	N=317	---	N=317	N=317
Reported grammatical problems	-.211**	-.117*	-.239**	-.117*	-.217**	-.128*	-.240**	-.351**
	N=310	N=315	N=315	N=316	N=316	N=316	N=316	N=316

Reported problem of incomplete sentences	-.232**	-.171**	-.228**	-.130*	-.213**	-.165**	-.233**	-.234**
	N=311	N=316	N=316	N=317	N=317	N=317	N=317	N=317
Reported problem of incorrect rendition of numbers and proper names	-.233**	---	-.214**	-.141*	-.148**	-.187**	-.153**	-.096
	N=311	---	N=316	N=317	N=317	N=317	N=317	N=317
Reported problem of incorrect rendition of words	-.133*	---	-.116*	---	-.179**	---	-.162**	---
	N=311	---	N=316	---	N=317	---	N=317	---
Reported problem of omission of information	-.168**	-.151**	-.226**	---	---	-.121*	-.207**	-.193**
	N=310	N=315	N=315	---	---	N=316	N=316	N=316
Reported problem of overtranslation	-.195**	-.120*	-.113*	---	---	---	---	---
	N=310	N=315	N=315	---	---	---	---	---
Reported problem of incomprehensible rendition	-.282**	-.183**	-.250**	-.136*	-.140*	-.235**	-.138*	-.123*
	N=311	N=316	N=316	N=317	N=317	N=317	N=317	N=317
Reported problem of misplaced order of information	-.253**	-.195**	-.250**	-.175**	-.178**	-.166**	-.171**	-.236**
	N=310	N=315	N=315	N=316	N=316	N=316	N=316	N=316
Reported problem of cohesion	-.150**	-.130*	-.202**	---	-.140*	---	-.113*	-.152**
	N=311	N=316	N=316	---	N=317	---	N=317	N=317
Reported problem of fluency	-.219**	-.143*	-.238**	---	-.133*	-.120*	-.155**	-.238**
	N=310	N=315	N=315	---	N=316	N=316	N=316	N=316
Reported problem of repetition and self-correction	-.162**	-.079	-.174**	---	---	---	---	---
	N=311	N=316	N=316	---	---	---	---	---
Reported problem of unnatural tone	-.266**	-.119*	-.223**	---	-.133*	-.225**	---	---
	N=311	N=316	N=316	---	N=317	N=317	---	---

Note: ** significant at $p < .01$ (2-tailed); * significant at $p < .05$ (2-tailed).

Likewise, Table 4.17 highlights that students' self-perceived English language abilities (in general and sub-areas) were found to be in significant and negative correlations with most of their worries in interpreting.

Table 4.17. Correlation between student's self-perceived English language abilities and worry about problems in interpreting

Self-perceived English abilities	General	Listening	Speaking	Reading	Writing	Pronunciation	Vocabulary	Grammar
Worry about inaccurate pronunciation	-.265**	-.242**	-.235**	-.251**	-.114*	-.483**	-.206**	-.152**
	N=311	N=316	N=316	N=317	N=317	N=317	N=317	N=317
Worry about failure to produce corresponding words	-.117*	---	-.127*	---	-.152**	---	-.157**	-.119*
	N=311	---	N=316	---	N=317	---	N=317	N=317
Worry about grammatical problems	-.165**	---	---	---	-.128*	---	-.139*	-.273**
	N=309	---	---	---	N=314	---	N=314	N=314
Worry about incomplete sentences	-.180**	-.162**	---	---	-.179**	-.120*	-.155**	-.229**
	N=310	N=314	---	---	N=315	N=315	N=315	N=315
Worry about incorrect rendition of numbers and proper names	-.117*	---	-.114*	-.126*	-.128*	---	---	-.135*
	N=310	---	N=314	N=315	N=315	---	---	N=315
Worry about incorrect rendition of words	-.120*	---	---	---	-.119*	---	-.157**	-.128*
	N=310	---	---	---	N=315	---	N=315	N=315
Worry about omission of information	-.122*	---	-.133*	---	---	---	---	-.180**
	N=310	---	N=314	---	---	---	---	N=315
Worry about overtranslation	-.234**	-.155**	-.111*	---	-.138*	-.221**	-.130*	-.216**
	N=311	N=315	N=315	---	N=316	N=316	N=316	N=316
Worry about incomprehensible rendition	---	-.132*	-.121*	---	---	-.112*	---	---
	---	N=315	N=315	---	---	N=316	---	---
Worry about misplaced order of information	---	-.153**	---	---	-.077	---	-.141*	-.148**
	---	N=313	---	---	N=314	---	N=314	N=314
Worry about problem of cohesion	-.177**	-.194**	-.142*	---	-.138*	---	---	-.202**
	N=310	N=314	N=314	---	N=315	---	---	N=315
Worry about lack of fluency	-.134*	-.117*	-.147**	---	---	---	---	-.187**
	N=311	N=315	N=315	---	---	---	---	N=316
Worry about repetition and self-correction	-.124*	---	---	---	---	---	---	-.117*
	N=311	---	---	---	---	---	---	N=316
Worry about unnatural tone	-.200**	---	-.146**	---	-.116*	-.204**	---	---
	N=311	---	N=315	---	N=316	N=316	---	---

Note: ** significant at $p < .01$ (2-tailed); * significant at $p < .05$ (2-tailed).

Table 4.18 shows the significant relationships between students' self-perceived English language abilities (in general and sub-areas) and their consideration of fatalness

of "grammatical problems" and the problems of "incorrect rendition of words" and "unnatural tone".

Table 4.18. Correlation between student's self-perceived English language abilities and consideration of fatalness concerning interpreting problems

	Self-perceived English ability in general
Consideration of fatalness concerning grammatical problems	-.146**
	N=309
	Self-perceived ability in English pronunciation
Consideration of fatalness concerning unnatural tone	-.118*
	N=315
	Self-perceived ability in English vocabulary
Consideration of fatalness concerning incorrect rendition of words	.133*
	N=314
	Self-perceived ability in English grammar
Consideration of fatalness concerning grammatical problems	-.129*
	N=314

Note: ** significant at $p < .01$ (2-tailed); * significant at $p < .05$ (2-tailed).

Perceived Chinese language abilities and problem perceptions in interpreting

In addition to the English language, students' perceived Chinese language abilities were also found to relate to their problem perceptions. As shown in Table 4.19, students' perceived Chinese language ability in general and in aspects of listening, speaking, reading, writing, pronunciation, vocabulary and grammar were found to be significantly correlated with their reported problems of "inaccurate pronunciation, "incorrect rendition of numbers and proper names", "overtranslation", "incomprehensible rendition", "misplaced order of information", "cohesion" and "unnatural tone".

Table 4.19. Correlation between student's self-perceived Chinese language abilities and reported problems in interpreting

Self-perceived Chinese abilities	General	Listening	Speaking	Reading	Writing	Pronunciation	Vocabulary	Grammar
Reported problem of inaccurate pronunciation	-.185**	---	---	---	---	-.187**	---	---
	N=313	---	---	---	---	N=317	---	---
Reported problem of incorrect rendition of numbers and proper names	-.138*	-.165**	-.166**	-.162**	-.139*	-.160**	-.146**	-.120*
	N=313	N=316	N=317	N=317	N=317	N=317	N=317	N=317
Reported problem of incorrect rendition of words	---	---	---	---	-.113*	---	---	---
	---	---	---	---	N=317	---	---	---
Reported problem of overtranslation	-.126*	-.134*	---	---	---	---	---	---
	N=312	N=315	---	---	---	---	---	---
Reported problem of incomprehensible rendition	-.129*	---	-.166**	-.113*	---	-.187**	-.121*	-.135*
	N=313	---	N=317	N=317	---	N=317	N=317	N=317
Reported problem of misplaced order of information	-.143*	-.138*	-.159**	-.139*	-.147**	-.176**	-.162**	-.178**
	N=312	N=315	N=316	N=316	N=316	N=316	N=316	N=316
Reported problem of cohesion	---	---	---	---	---	---	-.119*	-.129*
	---	---	---	---	---	---	N=317	N=317
Reported problem of unnatural tone	-.181**	---	---	---	---	---	---	---
	N=313	---	---	---	---	---	---	---

Note: ** significant at $p < .01$ (2-tailed); * significant at $p < .05$ (2-tailed).

Table 4.20 displays the significant correlations found between students' self-perceived Chinese abilities and their worry about different problems in interpreting.

Table 4.20. Correlation between student's self-perceived Chinese language abilities and worry about problems in interpreting

Self-perceived Chinese abilities	General	Listening	Pronunciation	Vocabulary	Grammar
Worry about inaccurate pronunciation	$-.173^{**}$	$-.177^{**}$	$-.182^{**}$	---	---
	N=313	N=316	N=317	---	---
Worry about overtranslation	$-.132^{*}$	$-.133^{*}$	---	---	---
	N=312	N=315	---	---	---
Worry about problem of cohesion	$-.142^{*}$	---	---	$-.155^{**}$	$-.142^{*}$
	N=311	---	---	N=315	N=315
Worry about unnatural tone	$-.157^{**}$	---	$-.164^{**}$	---	---
	N=312	---	N=316	---	---

Note: ** significant at $p < .01$ (2-tailed); * significant at $p < .05$ (2-tailed).

According to Table 4.21, students' self-perceived Chinese language abilities were found to be significantly and positively correlated with their consideration of fatalness regarding "incomprehensible rendition". Students' self-perceived Chinese speaking ability in particular was found to be in significant positive correlation with their consideration of fatalness concerning "inaccurate pronunciation".

Table 4.21. Correlation between student's self-perceived Chinese language abilities and consideration of fatalness concerning interpreting problems

Self-perceived Chinese abilities	General	Listening	Speaking	Reading	Vocabulary
Consideration of fatalness concerning inaccurate pronunciation	---	---	.111**	---	---
	---	---	N=314	---	---
Consideration of fatalness concerning incomprehensible rendition	.118*	.147**	.125*	.115*	.111*
	N=311	N=314	N=315	N=315	N=315

Note: ** significant at p < .01 (2-tailed); * significant at p < .05 (2-tailed).

2) Language learning habits and problem perceptions in interpreting

As shown in Table 4.22, students' English learning habits were found to be negatively correlated with their reported problems in certain aspects.

Table 4.22. Correlation between student's English learning habits and reported problems in interpreting

English learning habits	Contact with native English speakers	Watching English TV programs	Reading English newspapers and magazines	Writing English blogs
Reported grammatical problems	---	---	-.200**	-.151*
	---	---	N=239	N=239
Reported problem of incomplete sentences	-.130*	---	-.180**	-.184**
	N=238	---	N=240	N=240
Reported problem of omission of information	-.208**	---	-.195**	-.209**
	N=238	---	N=240	N=240
Reported problem of incomprehensible rendition	---	-.187**	---	---
	---	N=240	---	---
Reported problem of misplaced order of information	-.170**	-.184**	-.173**	---
	N=237	N=239	N=239	---
Reported problem of cohesion	-.184**	---	-.200**	---
	N=238	---	N=240	---
Reported problem of lack of fluency	-.162*	---	---	---
	N=237	---	---	---

Note: ** significant at p < .01 (2-tailed); * significant at p < .05 (2-tailed).

Table 4.23 displays that significant correlational relationships existed between students' English learning habits and their worry about certain problems in interpreting including "inaccurate pronunciation", "grammatical problems", "incomplete sentences" and "misplaced order of information".

Table 4.23. Correlation between student's English learning habits and worry about problems in interpreting

English learning habits	Contact with native English speakers	Watching English TV programs	Reading English newspapers and magazines	Writing English blogs
Worry about inaccurate pronunciation	---	-.139[*]	---	---
	---	N=240	---	---
Worry about grammatical problems	---	---	-.254**	---
	---	---	N=238	---
Worry about incomplete sentences	-.130*	-.189**	-.253**	-.135*
	N=236	N=238	N=238	N=238
Worry about misplaced order of information	-.177**	---	---	---
	N=236	---	---	---

Note: ** significant at p < .01 (2-tailed); * significant at p < .05 (2-tailed).

Table 4.24 summarizes the correlational relationship between students' language learning habits and their consideration of fatalness concerning interpreting problems of "grammatical problems", "incomplete sentences", "incorrect rendition of words", "incomprehensible rendition" and "misplaced order of information". Students' frequency of reading English newspapers and magazines was found to be significantly and negatively correlated with their consideration of fatalness concerning both "grammatical problems" and "incomplete sentences". Students' contact with native English speakers, frequency of watching English TV programs, reading Chinese newspapers and magazines and writing English blogs were found to be positively related to their consideration of fatalness concerning "incorrect rendition of numbers and proper names". Students' frequency of watching English TV programs was identified to be positively correlated with their consideration of fatalness concerning "incomprehensible rendition" and "misplaced order of information".

Table 4.24. Correlation between student's language learning habits and consideration of fatalness concerning interpreting problems

Language learning habits	Contact with native English speakers	Watching English TV programs	Reading English newspapers and magazines	Reading Chinese newspapers and magazines	Writing English blogs
Consideration of fatalness concerning grammatical problems	---	---	-.211**	---	---
	---	---	N=237	---	---
Consideration of fatalness concerning incomplete sentences	---	---	-.147*	---	---
	---	---	N=238	---	---
Consideration of fatalness concerning incorrect rendition of numbers and proper names	.143*	.131*	---	.148*	.129*
	N=235	N=237	---	N=237	N=237
Consideration of fatalness concerning incomprehensible rendition	---	.156*	---	---	---
	---	N=238	---	---	---
Consideration of fatalness concerning misplaced order of information	---	.224**	---	---	---
	---	N=237	---	---	---

Note: ** significant at $p < .01$ (2-tailed); * significant at $p < .05$ (2-tailed).

In Figure 4.4, a summary of the major statistical findings in this section is presented. According to the figure, English learning variables including students' language test scores, perceived language abilities and language learning habits were related to students' problem perceptions in many aspects. In particular, students' perceived English language ability was found significantly correlated with their perceptions of every type of interpreting problem; their English language learning habits were found to be significantly related to their problem perceptions mainly beyond word levels.

Figure 4.4. Summary of significant statistics regarding the relationship between language learning variables and learners' problem perceptions at different levels
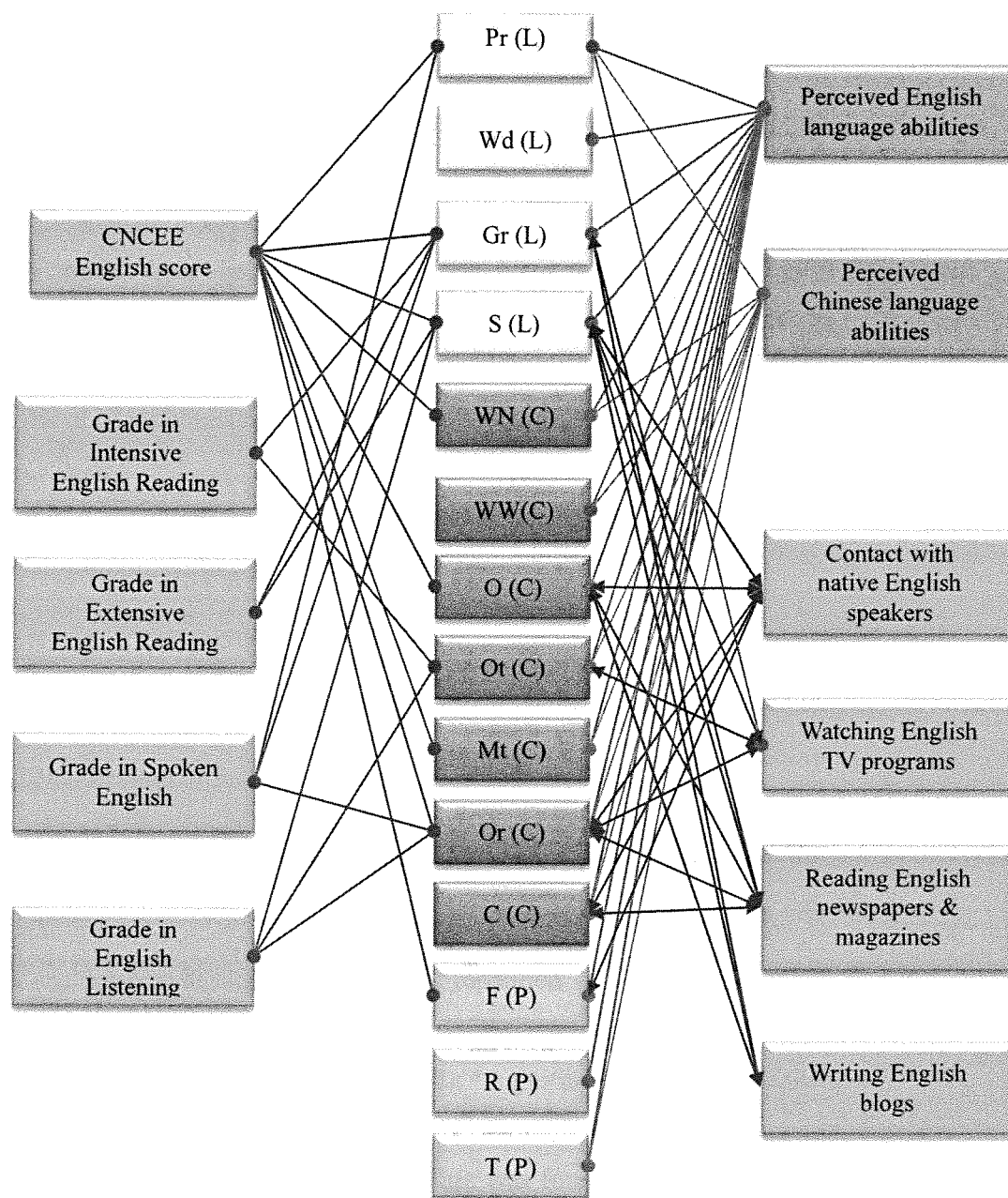
Note: See Table 3.2 for the coding of the problem types in the middle.

4.1.2.3 Interpreting Learning Variables and Problem Perceptions in Interpreting

Students' problem perceptions were examined in relation to their interpreting-related affective factors, cognitive skills and interpreting competence (self-perceived and actual).

1) Affective factors and problem perceptions in interpreting

Affective factors investigated in this study included student's interest and confidence in interpreting.

Apart from being negatively correlated with student's reported problem of "incomprehensible rendition" (r (317) = -.138, $p < .01$), student's interest in interpreting was found to be positively correlated with the consideration of fatalness concerning a number of problems in interpreting (see Table 4.25).

Table 4.25. Correlation between student's interest in interpreting and consideration of fatalness concerning interpreting problems

	Interest in interpreting
Consideration of fatalness concerning incomprehensible rendition	.124*
	N=315
Consideration of fatalness concerning misplaced order of information	.118*
	N=314
Consideration of fatalness concerning fluency	.115*
	N=314
Consideration of fatalness concerning repetition and self-repair	.168**
	N=315

Note: ** significant at p < .01 (2-tailed); * significant at p < .05 (2-tailed).

Student's confidence in interpreting was found to have a significant and negative relationship with the worry about inaccurate pronunciation, i.e., r (317) =-.114, $p < .05$. It was also found to be negatively correlated with most reported interpreting problems (see Table 4.26).

Table 4.26. Correlation between student's confidence in interpreting and reported problems

	Confidence in interpreting
Reported problem of inaccurate pronunciation	-.133[*]
	N=317
Reported problem of failure to produce corresponding words	-.135[*]
	N=317
Reported grammatical problems	-.148[**]
	N=316
Reported problem of incomplete sentences	-.128[*]
	N=317
Reported problem of incorrect rendition of numbers and proper names	-.145[**]
	N=317
Reported problem of incorrect rendition of words	-.191[**]
	N=317
Reported problem of omission of information	-.176[**]
	N=316
Reported problem of overtranslation	-.032
	N=316
Reported problem of incomprehensible rendition	-.129[*]
	N=317
Reported problem of misplaced order of information	-.139[*]
	N=316
Reported problem of cohesion	-.102
	N=317
Reported problem of fluency	-.162[**]

	N=316
Reported problem of repetition and self-correction	-.100
	N=317
Reported problem of unnatural tone	-.172**
	N=317

Note: ** significant at p < .01 (2-tailed); * significant at p < .05 (2-tailed).

2) Cognitive skills and problem perceptions in interpreting

Students' cognitive skills, including their ability to handle multiple tasks and short-term memory were examined in relation to their problem perceptions in interpreting.

Student's ability to handle multiple tasks was found to be significantly and negatively correlated with each type of reported problems and worries (see Table 4.27 and Table 4.28).

Table 4.27. Correlation between student's ability to handle multiple tasks and reported problems

	Ability to handle multiple tasks
Reported problem of inaccurate pronunciation	-.202**
	N=315
Reported problem of failure to produce corresponding words	-.179**
	N=315
Reported grammatical problems	-.194**
	N=315
Reported problem of incomplete sentences	-.201**
	N=315
Reported problem of incorrect rendition of numbers and proper names	-.142*
	N=315
Reported problem of incorrect rendition of words	-.224**

	N=315
Reported problem of omission of information	-.239**
	N=314
Reported problem of overtranslation	-.136*
	N=314
Reported problem of incomprehensible rendition	-.250**
	N=315
Reported problem of misplaced order of information	-.236**
	N=314
Reported problem of cohesion	-.202**
	N=315
Reported problem of fluency	-.243**
	N=314
Reported problem of repetition and self-correction	-.187**
	N=315
Reported problem of unnatural tone	-.299**
	N=315

Note: ** significant at p < .01 (2-tailed); * significant at p < .05 (2-tailed).

Table 4.28. Correlation between student's ability to handle multiple tasks and worry about interpreting problems

	Ability to handle multiple tasks
Worry about inaccurate pronunciation	-.202**
	N=315
Worry about failure to produce corresponding words	-.179**
	N=315
Worry about grammatical problems	-.194**

	N=315
Worry about incomplete sentences	-.201**
	N=315
Worry about incorrect rendition of numbers and proper names	-.142*
	N=315
Worry about incorrect rendition of words	-.224**
	N=315
Worry about omission of information	-.239**
	N=314
Worry about overtranslation	-.136*
	N=314
Worry about incomprehensible rendition	-.250**
	N=315
Worry about misplaced order of information	-.236**
	N=314
Worry about problem of cohesion	-.202**
	N=315
Worry about lack of fluency	-.243**
	N=314
Worry about repetition and self-correction	-.187**
	N=315
Worry about unnatural tone	-.299**
	N=315

Note: ** significant at $p < .01$ (2-tailed); * significant at $p < .05$ (2-tailed).

The ability to handle multiple tasks was also found to be significantly related to student's consideration of fatalness concerning "failure to produce corresponding

words", "grammatical problems", "omission of information" and "unnatural tone" (see Table 4.29).

Table 4.29. Correlation between student's ability to handle multiple tasks and consideration of fatalness concerning interpreting problems

	Ability to handle multiple tasks
Consideration of fatalness concerning failure to produce corresponding words	-.115*
	N=313
Consideration of fatalness concerning grammatical problems	-.118*
	N=313
Consideration of fatalness concerning omission of information	-.140*
	N=314
Consideration of fatalness concerning unnatural tone	-.150*
	N=313

Note: * significant at $p < .05$ (2-tailed).

Likewise, student's short-term memory was found to be significantly correlated with the reported problems and worry about problems at different levels (see Table 4.30 and Table 4.31).

Table 4.30. Correlation between student's short-term memory and reported problems

	Short-term memory
Reported problem of failure to produce corresponding words	-.127[*]
	N=240
Reported grammatical problems	-.148[*]
	N=239
Reported problem of incomplete sentences	-.225[**]
	N=240
Reported problem of incorrect rendition of numbers and proper names	-.214[**]
	N=240
Reported problem of omission of information	-.235[**]
	N=240
Reported problem of overtranslation	-.166[*]
	N=240
Reported problem of incomprehensible rendition	-.189[**]
	N=240
Reported problem of misplaced order of information	-.146[*]
	N=239
Reported problem of cohesion	-.131[*]
	N=240

Note: ** significant at p < .01 (2-tailed); * significant at p < .05 (2-tailed).

Table 4.31. Correlation between student's short-term memory and worry about interpreting problems

	Short-term memory
Worry about grammatical problems	-.162*
	N=238
Worry about incomplete sentences	-.227**
	N=238
Worry about incorrect rendition of numbers and proper names	-.199**
	N=238
Worry about overtranslation	-.152*
	N=239
Worry about problem of cohesion	-.159*
	N=238
Worry about lack of fluency	-.158*
	N=239
Worry about repetition and self-correction	-.134*
	N=239

Note: ** significant at p < .01 (2-tailed); * significant at p < .05 (2-tailed).

Furthermore, a slight but significant negative correlation was found between students' reported short-term memory and their consideration of fatalness concerning the problem of "cohesion" (r (237) = -.157, $p < .05$).

Additionally, the note-taking ability was found to be negatively correlated with students' reported problems of "incomplete sentences" (r (239) = -.138, $p < .05$) and "incomprehensible rendition" (r (239) = -.186, $p < .01$). It was also identified inversely related to students' worry about "incorrect rendition of words" (r (237) = -.133, $p < .05$).

3) After-class practice, knowledge of interpreting, interpreting competence and problem perceptions

A mild but significantly inverse correlation was found between the time of students' after-class practice and their reported problem of "disfluency", i.e., r (315) = -.131, p < .05. That is to say, the more self-training students performed, the more fluent they regarded their interpreting performance was.

Students' knowledge of interpreting was found to be significantly and negatively correlated with their reported problems of "incomprehensible rendition" (r (317) = -.156, p < .01) and "misplaced order of information" (r (316) = -.168, p < .01).

Students' interpreting achievement score was found to be significantly and negatively correlated with their reported problems of "incomplete sentences" (r (316) = -.125, p < .05) and "incomprehensible rendition" (r (316) = -.134, p < .05). It was also negatively associated with students' worry about "incomplete sentences" (r (314) = -.117, p < .05) but positively associated with their consideration of fatalness concerning "incomprehensible rendition" (r (314) = .165, p < .01).

Students' self-perceived interpreting competence was found to be negatively correlated with every type of students' reported interpreting problems and their worry about these problems except the problem of "overtranslation" (see Table 4.32 and Table 4.33).

Table 4.32. Correlation between student's self-perceived interpreting competence and reported problems

	Self-perceived interpreting competence
Reported problem of inaccurate pronunciation	-.230[**]
	N=315
Reported problem of failure to produce corresponding words	-.170[**]
	N=315
Reported grammatical problems	-.266[**]
	N=314

Reported problem of incomplete sentences	$-.308^{**}$
	N=315
Reported problem of incorrect rendition of numbers and proper names	$-.136^{*}$
	N=315
Reported problem of incorrect rendition of words	$-.251^{**}$
	N=315
Reported problem of omission of information	$-.311^{**}$
	N=314
Reported problem of incomprehensible rendition	$-.273^{**}$
	N=315
Reported problem of misplaced order of information	$-.290^{**}$
	N=314
Reported problem of cohesion	$-.264^{**}$
	N=315
Reported problem of fluency	$-.289^{**}$
	N=314
Reported problem of repetition and self-correction	$-.180^{**}$
	N=315
Reported problem of unnatural tone	$-.182^{**}$
	N=315

Note: ** significant at $p < .01$ (2-tailed); * significant at $p < .05$ (2-tailed).

Table 4.33. Correlation between student's self-perceived interpreting competence and worry about interpreting problems

	Self-perceived interpreting competence
Worry about inaccurate pronunciation	$-.150^{**}$
	N=315

Worry about failure to produce corresponding words	$-.184^{**}$
	N=315
Worry about grammatical problems	$-.190^{**}$
	N=313
Worry about incomplete sentences	$-.198^{**}$
	N=314
Worry about incorrect rendition of numbers and proper names	$-.119^{*}$
	N=314
Worry about incorrect rendition of words	$-.136^{*}$
	N=314
Worry about omission of information	$-.267^{**}$
	N=314
Worry about incomprehensible rendition	$-.140^{*}$
	N=315
Worry about misplaced order of information	$-.209^{**}$
	N=313
Worry about problem of cohesion	$-.223^{**}$
	N=314
Worry about lack of fluency	$-.197^{**}$
	N=315
Worry about repetition and self-correction	$-.114^{*}$
	N=315
Worry about unnatural tone	$-.160^{**}$
	N=315

Note: ** significant at $p < .01$ (2-tailed); * significant at $p < .05$ (2-tailed).

Furthermore, students' perceived interpreting competence was found to be in significant negative relation with their consideration of fatalness concerning "omission of information" (r (314) = -.116, p < .05) and "fluency" (r (313) = -.136, p < .05).

To sum up, Figure 4.5 presents the significant statistics regarding the relationship between interpreting learning variables and problem perceptions at different levels. As displayed in the figure, learners' confidence, multitasking ability and perceived interpreting ability were significantly correlated with their perceptions of most interpreting problems. Students' interest in interpreting was found related to their problem perceptions mostly at the discourse level, mainly about content and presentation; their note-taking ability primarily related to problem perceptions regarding language and content; their knowledge of interpreting was found significantly related to perceptions regarding discourse-level content problems; and their after-class practice was correlated with their reported problem of fluency in particular.

Figure 4.5 Summary of significant statistics regarding the relationship between interpreting learning variables and learners' problem perceptions at different levels
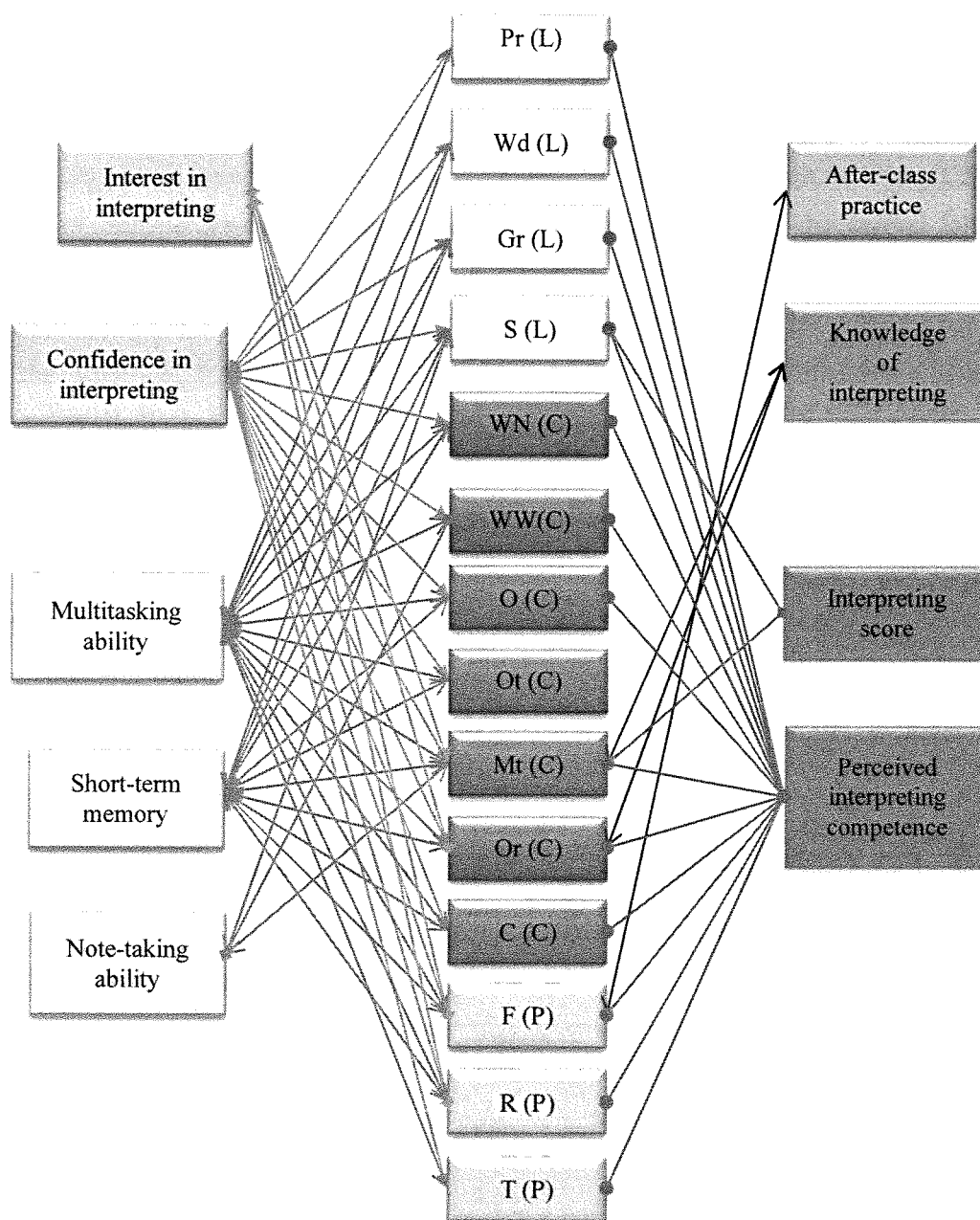
Note: See Table 3.2 for the coding of the problem types in the middle.

4.1.3 Learner Variables, Interpreting Problems and Interpreting Achievement

To find out which learner variables, in combination with problem perceptions, had the most predictive power on learners' interpreting achievement, a stepwise regression analysis was conducted. As shown in Table 4.34, six variables were found to significantly contribute to the prediction, accounting for 33% of the variance in learners' interpreting achievement. Learners' most recent grade in English Listening was found to be the most predictive in the model, explaining the largest share of variance, i.e., 17.3%. Learners' self-perceived Chinese writing ability was found to be the second largest predictor, accounting for an additional 6.8% of the variance. Learners' most recent grade in Intensive English Reading was the third strongest predictor, responsible for 2.9% of the variance. Learners' consideration of fatalness concerning incomprehensible rendition, their interest in finance and their reported problem of unnatural tone was found to be the fourth to the sixth significant predictor, explaining 2.1%, 1.9% and 1.9% of the variance respectively.

Table 4.34. Regression analysis of interpreting achievement on learner factors and problem perceptions

Predictor Variable	F change	Cum. R	Cum. R^2	R^2 Increment
Recent grade in English Listening	34.722***	.416[a]	.173	
Self-perceived Chinese writing ability	14.811***	.491[b]	.241	.068
Recent grade in Intensive English Reading	6.605*	.520[c]	.270	.029
Consideration of fatalness concerning incomprehensible rendition	4.909*	.540[d]	.292	.021
Interest in finance	4.562*	.558[e]	.311	.019
Reported problem of unnatural tone	4.533*	.575[f]	.330	.019

Note: R^2 =0.593; df=5, 75; F=21.858, p<0.05

Cum. =Cumulative; *p<0.05, **p<0.01, ***p<0.001

4.1.4 Learners' Perceptions and Teacher's Evaluation of Students' Problems in Interpreting

To find out if there was any significant difference between students' perceived and actual problems, Paired Samples Tests were run between students' perceived problems and teacher's evaluation of their actual problems in the elicitation test. As shown in Table 4.35, results of the tests indicated that students' perceived problems in most categories were significantly greater than teacher's evaluation of their actual problems in these categories, with the exception of "inaccurate pronunciation" and "repetition and self-correction". Compared to teacher's evaluation of their actual problems, students perceived significantly fewer problems of "inaccurate pronunciation" and "repetition and self-correction". No significant difference was found between students' perception and teacher's evaluation of their "grammatical problems" as well as the problems of "incomprehensible rendition" and "unnatural tone".

Table 4.35. Differences between students' perceived and actual problems

Paired Samples Test

	M	N	SD	Sig. (2-tailed)
Perceived problem of inaccurate pronunciation	2.30	76	.895	
Actual problem of inaccurate pronunciation	2.86	76	.905	
Perceived problem of inaccurate pronunciation – Actual problem of inaccurate pronunciation	-.56**			.000
Perceived problem of failure to find corresponding words	3.67	76	.855	
Actual problem of failure to find corresponding words	3.42	76	.678	
Perceived problem of failure to find corresponding words – Actual problem of failure to find corresponding words	.25*			.032
Perceived problem of incomplete sentences	3.59	76	.982	
Actual problem of incomplete sentences	2.11	76	1.053	
Perceived problem of incomplete sentences – Actual	1.48**			.000

problem of incomplete sentences				
Perceived problem of incorrect rendition of numbers and proper names	2.99	76	.945	
Actual problem of incorrect rendition of numbers and proper names	1.63	76	.727	
Perceived problem of incorrect rendition of numbers and proper names – Actual problem of incorrect rendition of numbers and proper names	1.36**			.000
Perceived problem of incorrect rendition of words	3.43	76	.838	
Actual problem of incorrect rendition of words	2.62	76	.692	
Perceived problem of incorrect rendition of words – Actual problem of incorrect rendition of words	.81**			.000
Perceived problem of omission of information	3.70	76	.966	
Actual problem of omission of information	2.95	76	.710	
Perceived problem of omission of information – Actual problem of omission of information	.75**			.000
Perceived problem of overtranslation	2.67	76	.870	
Actual problem of overtranslation	1.62	76	.653	
Perceived problem of overtranslation – Actual problem of overtranslation	1.05**			.000
Perceived problem of misplaced order of information	3.05	76	.908	
Actual problem of misplaced order of information	1.74	76	.700	
Perceived problem of misplaced order of information – Actual problem of misplaced order of information	1.31**			.000
Perceived problem of cohesion	3.54	76	.916	
Actual problem of cohesion	2.70	76	.833	
Perceived problem of cohesion – Actual problem of cohesion	.84**			.000

Perceived problem of fluency	3.79	76	1.050	
Actual problem of fluency	3.42	76	.898	
Perceived problem of fluency – Actual problem of fluency	.37*			.026
Perceived problem of repetition and self-correction	3.31	75	.972	
Actual problem of repetition and self-correction	3.63	75	.802	
Perceived problem of repetition and self-correction – Actual problem of repetition and self-correction	-.32*			.034

Note: ** significant at p < .01 (2-tailed); * significant at p < .05 (2-tailed).

4.2 Qualitative Research Findings from the Interview Analysis

Qualitative research findings reported in this section resulted from a thematic analysis of the data gained from both student and teacher interviews following the procedure described in Yan and Horwitz (2008). 45 students participated in the focus group interviews and 4 interpreting teachers were interviewed individually. Results from the student and teacher interviews were reported separately.

4.2.1 Findings from Student Interviews

The following themes were identified from the transcripts of student interviews:

1. Features of ideal interpreting performance

    1) The importance of information rendition

    2) Language quality in interpreting performance

    3) Delivery in interpreting performance

    4) Settings and interpreting performance

2. Perceptions of problems in interpreting performance

    1) Perception of problems in information rendition

      a. Omission, addition and mistranslation

      b. Problems in the rendition of difficult words and numbers

      c. Problems of coherence and cohesion

    2) Language problems in interpreting

a. Pronunciation problems

b. Problems in appropriate use of words

c. Grammar problems

d. Problems in rendering long sentences

3) Delivery problems in interpreting

a. Disfluency problems

b. Problematic tone in interpreting

4) Directionality and problems in interpreting

3. Prerequisites for good interpreters

1) Language competence of good interpreters

2) Knowledge of good interpreters

3) Psychological diathesis of good interpreters

4) Cognitive abilities of good interpreters

5) Personality of good interpreters

4. Individual factors influencing the learning of interpreting

1) Socio-biographic factors and the learning of interpreting

a. Gender and interpreting

b. Age and interpreting

c. Dialect and interpreting

d. Family background and interpreting

2) Personality and affective factors in the learning of interpreting

a. Extroversion vs. introversion in the learning of interpreting

b. Confidence in interpreting

c. Nervousness in interpreting

d. Motivation and interest in interpreting

a) Becoming an interpreter or not

b) Learning interpreting for English enhancement

c) Learning interpreting for knowledge expansion

d) Learning interpreting for a better future

     e) Learning interpreting for self-satisfaction and self-challenge

  3) Cognitive factors in the learning of interpreting

    a. Responsiveness and interpreting

    b. Memory and interpreting

    c. Multitasking skills and interpreting

    d. Note-taking skills and interpreting

  4) Language competence and the learning of interpreting

  5) Knowledge and the learning of interpreting

    a. Knowledge specialization and the learning of interpreting

    b. Topic familiarization and interpreting

  6) Self-practice and the learning of interpreting

4.2.1.1 Features of Ideal Interpreting Performance

Students sketched the features of ideal interpreting performance from the perspectives of content information rendition, language quality and delivery.

1) The importance of information rendition

The rendition of content information was regarded the most important in interpreting by student participants. A fourth year female student stated:

> (In interpreting), we should firstly work on the rendition of the content information, and then think about other things related to fidelity, accuracy or elegance ... You have to base anything else on the rendition of content, or you lose all ...

A second year female student shared this opinion in her statements:

> That is to say, (in interpreting), I use the language to express my ideas but not to show off how much vocabulary I have or how good my pronunciation is, as neither of them matters (compared to the rendition of information).

Whether they share the same opinion or not, interpreters should convey the ideas of the speaker. Even if the speaker said something wrong, something irrational, something biased or too radical, we have to render his/her ideas fairly and appropriately. No personal feelings should be brought into it. It is different from public speaking ... If I am delivering a public speech or presenting at the United Nations, I have to bring in my feelings, including my own ideas and thoughts, and use language as a weapon to protect my rights. But as an interpreter, I am one of the staff who helps to deliver the conference. They (the speakers) communicate with each other. I am just a bridge.

2) Language quality in interpreting performance

Besides information, students also attached great importance to language quality in interpreting. The ideal language in interpreting output was described by a second year non-English major student as "clear, easy to understand and succinct", and she regarded that "overelaboration will cause misunderstanding".

A fourth year female student also commented on the ideal language quality in interpreting:

The interpreted language should sound perfect and standard, (Laugh), so that nobody feels any difference in communication (as compared with the situation of direct communication where an interpreter is not needed). As if the interpreter is the speaker, just that the speaker has spoken twice.

A third year female student used the expression of "speaking like your native language" as the ideal target language in A to B interpreting. She further elaborated her idea:

When people only have access to your voice, they cannot tell if you're interpreting others' words or speaking in your native language. I think that should be called "top-level interpretation".

A fourth year female student mentioned the importance of applying appropriate language register in interpreting: "in formal speeches, he/she (the interpreter) should use formal expressions as well".

3) Delivery in interpreting performance

Students noted that delivery level factors needed to be considered in good interpreting performance. For example, a second year male student mentioned that disfluency might lead to the violation of time limit in consecutive interpreting and the interpreters' "invisibility" rule.

> If you are the interpreter at a press conference, you should note that there is usually a time limit. If you take too long to render the interpretation, you are taking the leading role, while the speaker becomes subordinate. So I think, as an interpreter, you have to render fluent interpretations, and try as far as possible to shorten your interpreting time.

4) Settings and interpreting performance

A number of comments concerned the necessity of taking settings into consideration when judging interpreting performance: the rendition of content information was regarded as more important in business interpreting and language quality in conference interpreting, especially in diplomatic interpreting.

> I think settings matter (in the assessment of interpreting). In some situations, a gist might suffice. Some others aim at the acquisition of information. When detailed information is needed, rendition of details becomes important. But for manifestos, a gist is enough …

> Take (interpreting in) tourism for example, giving the gist of the situation is enough. Detailed precision is not necessary, and doesn't matter much. A rendition of the general ideas should be okay. But in business interpreting, if you make a mistake in numbers, huge misunderstandings can result.

When interpreting for conference speeches, you have to deliver it in beautiful language. As to corporate interpreting, I think, content is the most important. In case the content is wrong, no matter how good your language is, it is useless. Especially in interpreting contracts, if you get the percentages wrong or the digits wrong, the interpretation is definitely unacceptable. On official occasions such as interpreting for state leaders, your language has to be official, of course, or at least not plain, I think.

4.2.1.2 Perceptions of Problems in Interpreting Performance

1) Perception of problems in information rendition

With the consensus that information mattered most in interpreting, students shared their opinions on problems related to the rendition of content information in interpreting.

Omission, addition and mistranslation

Students commented on the fatalness of omission, addition and mistranslation of information in interpreting. For example, a male student in Year 2 elaborated on the fatalness of omitting important information in interpreting.

For example, at a conference, a foreign journalist asks our state leader which aspect stands out as our most remarkable achievement in economic reform, and then the Chinese leader answers that it is the advancement of rural reform and development. If the interpreter does not get the full message and interprets it into "the advancement of economic reform", omitting "rural", it will be reported that China has seen economic development in every aspect. However, the question is which aspect has seen the most remarkable achievement ... Such problems are most fatal.

Likewise, the problem of addition in interpreting was addressed as harmful. An interpreter who tended to add unwanted information into the source text was regarded undesirable by students.

We absolutely cannot hire interpreters like that (adding information that did not exist in the source text). You need to see someone's potential when you hire him/her. If a person's shortcomings could be made up, you can hire him/her. If one's shortcomings are rooted deep in the personality, then the person becomes unacceptable.

Furthermore, mistranslation or meaning confusion was regarded by many as detrimental in interpreting.

If it is not clear in meaning, or if the meaning is expressed in an inaccurate way, it (the interpretation) is problematic.

I will definitely fire an interpreter if he/she fails to express my ideas clearly but creates misunderstandings for my audience.

In (interpreting for) business negotiations or in international communications, accuracy in meaning rendition is very important. A mistake (in meaning) may result in huge conflicts.

Problems in the rendition of difficult words and numbers

Students believed that mistranslation might be triggered by problems in the interpretation of words and numbers.

I think that, by using incorrect words, you might create misunderstandings.

Sometimes an unknown word pops up ... and you get stuck by the word, which captures all your attention. Then you'll leave out a lot and fail to capture the overall meaning.

In business interpreting, numbers might create problems that result in misunderstandings.

A second year male student further mentioned the seriousness regarding the omission in numbers.

You should not leave out information. For example, if you omit a digit in a number, how much will you lose? There shouldn't be any omission in numbers!

Admitting that they often encountered problems when interpreting numbers, students concerned greatly about numbers in interpreting.

Whenever you put the digits down (in your notes), you feel nervous.

You have to put a comma at certain digits, which takes all the time you have.

It is usually impossible to note down the information after numbers.

Problems of coherence and cohesion

Students regarded the ability of discourse management important in interpreting. For example, a second year female student stated:

In my opinion, coherence and cohesion matter. Be it consecutive or simultaneous interpreting, you interpret more than one sentence. If you cannot connect sentences in an appropriate and coherent way, your rendition will become a piece of unqualified product. To become an interpreter, the prerequisite is that you have the ability to connect sentences into paragraphs, weave together paragraphs and make your interpretation an integrated piece.

The student also addressed the differences between coherence and cohesion and their relevance to interpreting. Coherence was regarded to be more important in interpreting.

It is not just about the use of connective words, which is more relevant to translation skills. If you want to move beyond translation and improve your interpreting skills, you have to attach greater importance to the coherence of the overall discourse, not just to focus on the use of connective words.

In addition, the student regarded that coherence and logic problems are "mutually inclusive".

2) Language problems in interpreting

Many students mentioned that the language expression in their interpreting output sounded awkward, even when interpreting into their A language.

When you finish, you find that you have interpreted the content alright, but the interpretation doesn't sound good enough. You feel that the language used is plain and poor. It seems that something is missing ... the language sounds bad and difficult to bear.

You don't feel right when you listen back to it. Even when you interpret something from English into Chinese, the language doesn't sound native.

Specifically, students commented on the problems of pronunciation, appropriate use of words and grammar problems in interpreting.

Pronunciation problems

A fourth year female student commented on her worry about the impact of pronunciation problems in interpreting.

What I fear most is that after I finish (the interpretation), people do not understand what I was talking about. (Laugh) ... I feel that my pronunciation and intonation are problematic. And I'm afraid that when I interpret, people don't understand me.

Problems in appropriate use of words

A second year male student elaborated on the importance of choosing appropriate words in interpreting:

Words usually have more than one meaning; some might have many, not to mention different shades of meaning, positive or derogatory connotations and certain cultural connotations, which are difficult to judge. So it becomes very difficult for you to choose the proper rendition in translation or interpretation. The greatest problem lies in the process of choosing. For example, in simultaneous interpreting, how will you render what the foreigner says? How will you come up with a word in the target language, which is at least comparatively accurate, so that you won't make a fool of yourself? That's why I think inappropriate use of words is the most fatal (in interpreting).

A second year female student also noted the importance of appropriate use of words in interpreting.

You have to pay attention to the appropriate use of words in English ... For example, if you talk about walking, you should note that there are different ways of walking, such as crawling or treading. There are many types ... You'll find it's difficult to find their equivalents when interpreting.

Grammar problems

Students tended to be more tolerant of grammar mistakes. As put forward by a fourth year female student, "I think that if others understand your meaning, grammar

mistake ... might not matter that much". Another student also commented on grammar mistakes in interpreting.

I don't think grammar matters. It doesn't mean it is not important. When you have translation or interpreting lessons by foreign teachers, (when you talk to them), it is impossible to avoid grammar mistakes. Perhaps the teacher will just grin and bear it, as long as he/she knows your meaning. In interpreting, especially in simultaneous interpreting within a time limit and great pressure, you can hardly avoid grammar mistakes unless you have practices for a very long time.

Problems in rendering long sentences

Students mentioned that long sentences usually posed a great challenge to their interpreting.

I think if the sentences are short, it is easy to interpret. But if the sentences are long, you can only remember parts of it. For example, you remember the end but forget the beginning. That's ... very awkward.

(It's extremely difficult) when you encounter long sentences in English. You thought it had ended, but another part of the sentence cropped up. Then you feel puzzled, as you don't know where to add the newly added part.

Sometimes when the sentence is long, it is difficult for you to capture its meaning: you cannot react fast enough with a proper rendition.

3) Delivery problems in interpreting

Delivery problems such as disfluency and problematic tone in interpreting were addressed by students.

Disfluency problems

Students noted that unnecessary pauses and language fillers were problematic in interpreting. For example, a second year female student felt that unnecessary pauses were the major cause for her failure in the regional interpreting certification test.

> At the beginning of the intermediate interpreting test, the examiner told me that it was time for the test, and we started. I found the sentences were not difficult, and I listened and took notes. At the same time, I was trying to translate the sentences I heard, as you have to finish your interpretation within the time limit. When I start to deliver my interpretation, I paused for a noticeable time period, i.e., about one to two seconds. The rendition I thought about when I was listening vanished at that moment. I got stuck and felt really panicked. I think that must have been the killer blow for me in the test.

A second year female student attributed the use of language fillers to the Chinese speaking habit.

> When you get used to the Chinese way of speaking, you tend to use the filler "er, er, er" all the time. In my English speaking test, I used that filler a lot. And the foreign teacher was struck dumb. (Others laugh). So I want to cut down the use of this habitual filler in speaking, a bad habit transferred from Chinese. (Others laugh and agree).

Problematic tone in interpreting

Problems related to tone in interpreting were also addressed by students. Two fourth year female students stated:

> Tone is also important. For example, your employer says something in respect, but you interpret it in anger, as if you're in a quarrel, your employer will definitely not be satisfied (with you).

When I listen back to our recordings, I don't feel they sound like interpretations ... our sounds are too rigid, and perhaps it is due to the lack of confidence, I guess, our voice is too low, sounds powerless.

Another fourth year female student stated the importance of the force of character in interpreting.

At the press conference on news, an interpreter with appropriate pronunciation was replaced by another. The first interpreter might have rendered the content right, but there was no force of character in his/her voice. He/she appeared to be slow-witted, so he/she was replaced.

4) Directionality and problems in interpreting

Some students noted that the change of directionality could result in different problems in interpreting: when interpreting from English to Chinese (B to A language), language comprehension, including the comprehension of specific words seemed to be their greatest concern.

I (usually) don't understand the source text in English (Laugh), so I cannot interpret it at all ... When the source text is in Chinese, you can get its meaning if you spend some time pondering over it. When interpreting from English into Chinese, you can hardly understand the source text if the speaker speaks too fast or if the content is too technical.

I think interpreting from English into Chinese is very difficult. You can manage to render an approximately close interpretation when you interpret from Chinese into English. But when you interpret from English into Chinese, failure to understand a specific word may cause problems in interpreting the whole sentence.

Likewise, students indicated their deficiency in classic Chinese culture and difficulties in interpreting elegant expressions in the source language when performing interpreting from Chinese into English. Some culture-loaded words may pose particular challenges in Chinese to English interpretations.

> When you interpret from Chinese into English, you might get stuck by a particular word, and you cannot figure out its meaning. And then you feel anxious.

> Chinese culture is too deep to interpret.

> I fear most of the four-character Chinese words, or proverbs in Chinese.

> As our first language, of course it is easy to understand Chinese. But I find that I have difficulties in interpreting expressions loaded with Chinese culture ... For example, the antiques in Chinese are usually interpreted into modern articles in English, which cannot accurately reflect our culture. I think it is strange but however hard I try, I cannot improve it. The rendition of poetry from *The Book of Poetry*, *The Sound of Chu* or *The Analects* is so difficult that we usually fail to interpret them. Even if you do interpret them, you can only render the semantic meaning but can hardly render the beauty of the language successfully. There is usually something missing.

Furthermore, students noted the difficulties in assessing and improving their own interpretation in the aspect of language.

> In many cases, we think that our interpretation is nice when interpreting from Chinese into English, but the native speakers don't understand it at all ... Sometimes we tried to show off our English competence by using some big words ... but our foreign teacher told us they sounded too verbose.

When interpreting from Chinese into English, we usually feel good about our interpretation since Chinese is our native language. Sometimes we might even feel a little narcissistic of our own interpretation. The problem is that we never think how people from the English speaking countries respond to the interpretation. We don't, neither can we think that way, because there is usually no one from the English speaking countries to listen to and help to assess our interpreting performance.

4.2.1.3 Prerequisites for Good Interpreters

Students regarded interpreting as a high-level professional activity requiring a combination of different prerequisites, innate or acquired.

He/she should be an all-rounder.

A versatile person. (Laugh).

The profession of interpreting sets high standards of personal quality in all aspects.

I don't think interpreting is a separate discipline. It is closely related to English and other fields. It is not so sacred or unattainable. In other words, it is a comprehensive matter including many things.

Specifically, students listed many personal features of good interpreters covering aspects of language competence, knowledge, psychological quality, cognitive ability, personality and interpreting skills.

An interpreter should show comprehensive quality. If he/she fails in any single aspect, he/she is not a qualified interpreter. The criteria, I think, are quite strict. However, it is usually difficult to be perfect at the beginning. For novice interpreters, their potential is most important. For example, if their pronunciation

is comprehensible but not standard, i.e., neither British nor American, I will accept them as they can improve by practice. But for those who'd like to interrupt the speakers at business negotiations, or even do the negotiation for them, it is definitely unacceptable.

I think firstly he/she (a good interpreter) should have wide knowledge. Secondly, a large vocabulary. Thirdly, very good spoken language.

I think firstly, good listening skills. Of course, good knowledge of English is another prerequisite. Secondly, memory, I mean, short-term memory. Also you have to be able to translate immediately.

Good note-taking skills.

1) Language competence of good interpreters

Recognizing that it is not the only condition for good interpreters, students commonly believed that language competence, including native language competence, was the fundamental prerequisite for a good interpreter.

I think mastery of the language is very important. For someone who has good spoken language, he/she can speak fluently even if he/she is not so familiar with a subject. He/she can use simple words to express his/her ideas. In interpreting, if a word is too technical to translate, you can express it in an indirect way, i.e., to use indirect translation. You don't really have to get the exact word before you start interpreting. I think this has something to do with your mastery of the language. Some might have been born with it; some might need to nurture it. (Smile).

Many students mentioned that it is important for an interpreter to master a large vocabulary, including a certain amount of terminology.

(A good interpreter) should have a large vocabulary reservoir.

(A good interpreter) should be able to master a certain number of proper nouns, which he/she is able to transfer bilingually in a fluent manner.

Basically, (a good interpreter should know) the technical words, such as jargon. He/she should know some.

A student noted that the spoken language, especially pronunciation, was very important. For example, a fourth year female student mentioned:

You have to see if he/she has accurate pronunciation or not. This is because even though you expressed the meaning successfully, it is useless if people do not understand you.

Student also noted the importance of good Chinese language competence:

(A good interpreter) has to have good Chinese. (Others laugh and nod in agreement).

A student recommended that a good interpreter should play the extra role of a language editor:

Another thing, when you are the speaker and make a mistake, the interpreter should be able to help you correct it. He/she should make the expression somehow more modest ... or help you edit your output.

2) Knowledge of good interpreters

Besides language, a wide range of knowledge was noted by the students as another important prerequisite for good interpreters.

> I think, the key for a real interpreter is erudition ... It means that he/she can both demonstrate his/her expertise in interpreting and be equally competent in other fields.

> He/she (a good interpreter) should absorb a wide range of knowledge. (Others nod in agreement). Because interpreting involves various subjects, you have to accumulate relevant knowledge in whatever others talk about.

Students thought that cultural knowledge in particular formed the basic competence of interpreters. A good interpreter should be equipped with the cultures of both the source and target language so that his/her interpretation can successfully bring out relevant cultural connotations and avoid making serious cultural mistakes.

> In my opinion, as an interpreter, you have to know about the cultures of both languages. And you have to be careful. For example, in *The Lion King*, the word "blue" ("lan(2)" in Chinese) indicates the color of blue and the emotional mood of being dismal. If you render it into "grey" ("hui(1)") in Chinese, it has the meaning of a color and can also indicate the mental status of a person. So "lan(2)" might not be the best equivalence for "blue" in Chinese. It has a lot to do with the cultural background, which you have to be very familiar with. Another example will be *Liangzhu (The Butterfly Lovers)* in China. It is a very sad love story. If you translate it plainly, foreigners might not understand. But there are similar well-known stories in the West, such as *Romeo and Juliet*. So you have to be familiar with the cultures to successfully render relevant cultural connotations.

> As an interpreter, you have to know things beyond the language or expression level. Most important is that you should acquire manners and customs of different cultures. Otherwise, it'll be detrimental when you say something relating to other people's taboo.

Recognizing that the familiarity with subject knowledge is crucial for good interpreters, students agreed on the importance of background knowledge preparation before interpreting.

> I think you can try to do some research before the job. For example, look up where the speaker comes from and their background. Do some preparation.

> I think it is easier to prepare for topics like opening ceremonies, (others laugh), as there are some fixed expressions and patterns. Also opening or closing ceremonies won't take long. Or you might even have access to the written draft of the speaker before the job. When interpreting for a lecture or a company, you might need to look up more.

3) Psychological diathesis of good interpreters

Students recognized that interpreting is a highly demanding activity and good psychological diathesis was very important for interpreters even though he/she is qualified in aspects of language and knowledge. For example, the ability to work under stress was mentioned by many students as crucial. Here is a comment by a fourth year female student:

> I think interpreting poses great challenges to a person psychologically. One has to be good in this respect. Why do you fear (interpreting)? Why do you shiver? Why can't you endure stress? It is all because that you do not possess good psychological quality. As we have discussed, if your English is good, normally you can undertake the job of an interpreter. But if you are only good at English, you may not be qualified as an interpreter ... As it is said, if you are a good learner, you may not be able to become a good teacher. Same logic.

One student mentioned that "those who look too timid are not acceptable interpreters", as "it's easy for them to stammer during interpreting". Another student said, "psychological status is the most important, which decides everything".

Students agreed that confidence was an important attribute of good interpreters.

If the interpreter is not confident enough, I don't think he/she will do a good job. Perhaps there is no problem for him/her to interpret the message correctly and use fine language, but if he/she is not confident, I think he/she still loses the job.

Students also mentioned that a good interpreter should have a steady demeanor.

I think, as an interpreter, you have to be patient and concentrated. You have to be able to sit there and listen carefully. I think, even if a person is qualified in both languages and has the necessary training, if he/she cannot sit in concentration, he/she cannot take the job. An interpreter needs to be able to work under great pressure and he/she should have good psychological qualities, without which, he/she can never become an interpreter.

4) Cognitive abilities of good interpreters

Students noted that a feature of interpreting is its "immediacy", and therefore a good interpreter should be quick to respond to things during interpreting.

If the interpreter has slow responses (I will fire him/her). For example, there was a guy from our interpreting class. At a business meeting, the speaker spoke for quite a long time, and he/she failed to (interpret) ... He/she did not know when to step in to do the interpretation.

There is a certain type of person, who is quick at thinking, and their minds react quickly, i.e., they have quick responsiveness, so they can immediately render what they hear into another language. I think such people can make good interpreters.

If you are an interpreter and have slow responses, it's definitely not going to work! You audience cannot always stand there and wait for you to speak.

Besides quick responsiveness, students also noted that a good interpreter should have good memory, short-term memory in particular.

5) Personality of good interpreters

Students shared their perspectives concerning personality features of the ideal interpreter. In their opinion, a good interpreter should possess certain charisma and show devotion to the job.

> I think an interpreter should possess external charisma. (Others laugh). If the interpreter appears on camera, he/she has to show a good image in front of foreign journalists as representatives of our state leaders, right? So image is very important. Of course, it is very difficult.

> (A good interpreter) should be fully devoted to the job.

4.2.1.4 Individual Factors Influencing the Learning of Interpreting

In addition to listing the prerequisites of good interpreters, students noted the influence of relevant individual learner factors in their learning of interpreting.

1) Socio-biographic factors and the learning of interpreting
Gender and interpreting

Students agreed that there were certain differences between male and female students in interpreting. The following comments were made by a fourth year female student concerning some of these differences such as the way of thinking and stamina:

> In fact, I think if you really want to tell the differences between male and female students in interpreting, the answer is their way of thinking. When the content of the interpretation is very technical, the interpreter needs to consult a lot of relevant material, and there is no difference between male and female

interpreters. But the key is the way of thinking. Perhaps male and female students have different logic and ways of thinking.

There is also a difference between male and female students in their energy. I think male students do sports more often, and, therefore, they're more energetic. In simultaneous interpreting, each shift is about 20 minutes. Interpreters have to be highly concentrated during that time period, and there is a quick consumption of energy. I think male students may be more advantageous in this respect.

A fourth year male student stated possible differences between male and female students on the understanding of literature works:

When interpreting literature works such as novels or poetry, male and female students understand differently.

Age and interpreting

Students agreed that age mattered in the profession of interpreting. Basically, the elder one gets the more experience one accumulates.

I think the impact of age differs according to interpreting settings. Fields such as tourism and foreign trade pose different selection criteria for interpreters. In foreign trade, it's better to recruit someone older than thirty. In agriculture, it's better to have somebody younger, as he/she'll bring in liveliness. When he/she reaches thirty, he/she can do interpreting in the business field ... because his/her personality changes (to be more mature) ...

Elder people are more experienced in the respect of language expressions or in case of emergencies.

I believe age matters. In your twenties and thirties, you accumulate experience. You reach perhaps the (professional) peak in your thirties and forties ... This

applies for both males and females. Perhaps males do interpreting a little longer than females.

Dialect and interpreting

Students noted that the speaking of a dialect could influence one's pronunciation when interpreting from English into Chinese but were not sure about the influence of dialect when interpreting from Chinese into English. A fourth year female student who speaks the Wu dialect mentioned:

> I think the speaking of a dialect has a greater influence in English to Chinese interpretation, but it becomes less influential in Chinese to English interpretation. If one speaks good English ... his/her rendition in English won't be influenced (speaking a dialect or not). I believe the influence (of dialect) may exist, but not absolutely.

A fourth year female student who speaks only Putonghua stated:

> (It is) definitely (influential). Because it (the dialect) will influence your pronunciation ... but it does not influence other respects (in interpreting). (Others nod in agreement).

The following statements were made by two fourth year female students with the Wu dialect.

> I cannot pronounce alveolar nasal sounds even now ... I cannot differentiate between "r" and "l". I can only pronounce "l". (Laugh).

> I cannot tell the differences between "n" and "l".

Family background and interpreting

Many students commented on the indirect influence of family background on their learning of interpreting. Students noted that parents' education and working area might affect their language learning environment, knowledge exposure and personality.

Nobody in my family can speak English with me ... (Laugh). But my father often asks me to watch CCTV-9 (English programs). (Others laugh).

Parents' emphasis on English learning (matters) ... I believe that parents and the family environment exert influence on one's personality. If you are extrovert, brave, not afraid of making mistakes, fear nothing or having strong nerves, (it'll be easier for you to learn English). The learning of English is closely related to an individual's personality. If you dare to speak, just like Qun said, if your parents are far-sighted and often take you out to communicate with people, I think it definitely makes a difference.

I did not know that education had anything to do with a person's way of thinking. In my family, my father doesn't have much education, and my mother graduated from university. Although my father does not have much education ... he tells me a lot of things that I haven't heard of at all, even now. So I haven't felt any difficulty in communicating with him. When I met that young father (who did not have much education and called his son stupid), I felt the difference. That father admired my education, saying, "if only I had 1 percent of your language competence and knowledge, I would blah blah blah". I felt difficult to understand him ... The day I met them (the young father and his son), I was reading some books, and I started to talk about history. I found the son showed indifference towards knowledge. Then I felt the influence of family on that child.

I think that family influence is enormous. I don't think that the economic status of a family is the most important. The key is the parents. I think the education of parents is related to the education of the children. But it's not absolute. Perhaps

there is no absolute correlation (between father's education and the child's education), but I believe they are related.

My parents paid a lot of attention to my education. It does not mean they had very high education, just that they paid a lot of attention to mine ... I'm the only daughter of my parents, so my mother quit her job to take care of me. Before that, she was a chemical analyst in a science lab. My father's job is related to building removal for the government. He does that all day, which does not require a high level of education, I think. He attended senior high school, but not university. But both my parents paid much attention to me ever since my childhood ... Last time I returned home from university, my father forced me to watch "the Reading Channel" with him ... My mother buys books for me to read ... If I want to become an interpreter, I need to understand the Chinese culture. My father knows about Guasha (Holographic Meridian Scraping Therapy) and acupuncture points. Ever since childhood, I helped my father with Guasha ... I think this kind of cultural infiltration happened now and then. It is this kind of infiltration − it might not be an appropriate word, I mean things we come into contact with, like some kind of information explosion − that is necessary to interpreting, I think. (Smile).

My parents were very strict with me when I was young. (Laugh). So now I do things in a very quick manner no matter what I do, including taking exams. I never indulge in any dilatory style in working but always carry things out with drive and determination, like a male.

I do things slowly. (Smile). My father is also like that. I usually finish one thing completely (before I start anything else). So if the interpretation needs to be done very quickly, I definitely cannot make it. (Laugh). I need to work in a very relaxing and pleasant environment, where I can feel free to omit any word, any sentence, or even give a bad answer.

Interestingly, one fourth year female student mentioned that interpreting is related to the genes in a family.

> Talking about family influence, I think genes have a part to play. (Others laugh). Because interpreting has something to do with one's gift. For example, if you have two radio sets, one broadcasting Chinese programs, one English, you test yourself on it to see if you can listen to and get the idea of both programs. If you can, you must have that gift. (Others laugh).

2) Personality and affective factors in the learning of interpreting

Extroversion vs. introversion in the learning of interpreting

Students thought that extroverts generally do better than introverts in interpreting, but not necessarily in all cases.

> Those who act boldly are definitely better than the introverts (at interpreting) ... If I'm an interpreter, in case I miss anything (I will ask) ... In such cases, some might just slip it through without asking, or without the nerve to ask. I don't think that's a good way.

> Personality matters, definitely matters. When two people are equally equipped with the reservoir of knowledge and vocabulary, I think extroverts definitely have more advantages (in interpreting) ... But it (personality) does not take the leading role.

Confidence in interpreting

Students mentioned they lacked the confidence in interpreting, which was possibly caused by their perceived deficiency in the English language.

> I have the least confidence in myself. (Laugh). (I) lack confidence most.

> Possibly because I don't have confidence in my English.

I think a person's confidence (in interpreting) matters. There are things that you get ready for before the interpretation but when you get nervous, you forget them all. It might be attributable to the lack of confidence in yourself ... perhaps it also has things to do with your major or your expertise, which is different for everyone, resulting in the lack of competence in certain aspects.

Nervousness in interpreting

Relating to the lack of confidence, many students noted that they felt extremely nervous during the task of interpreting, which can have a detrimental effect.

You stand there, your mind is blank, and you don't know what to do.

Nervousness means that your limbs, especially your hands sweat. (Others laugh). You feel cold, and your face turns white as a sheet.

Perhaps you did a lot of preparation, for example, you memorized every word in the textbooks, twice or three times, but all of a sudden your mind went completely blank, or there are too many words jumping into your head, leaving you at a loose end ... Perhaps you did well in your daily practice, but when you come on site, you feel nervous or what, all at once, you fail to function.

A very difficult problem is that I feel very nervous. This kind of feeling is hard to get rid of.

Students noted that nervousness was usually transient, happening more often at the beginning or before the interpreting task.

(I get nervous) especially before the interpretation starts.

Usually I'm only nervous when I listen to the first two sentences. I can then adapt myself to the task and function better.

I get most nervous at the beginning of the interpretation, or even before I start, but I feel nothing after several seconds. I don't feel nervous then. (Smile).

When I start interpreting, I feel very nervous and usually stammer a little. But later on my interpretation sounds more natural.

According to the students, the triggers for their nervousness in interpreting usually included their perceived or the actual occurrence of failure in comprehension, as well as the immediacy of the interpreting task.

If you happened to run into extracts that you don't understand, you need to spend time thinking. But time passes and you miss the following parts. Then you get upset and fail to capture more ... (Others laugh).

(I get nervous) because I worry that I cannot understand (the source language). Perhaps it goes too fast or whatever. Once you get slightly distracted, the speech is over, all finished.

I fear that I cannot understand the meaning (of the source text). (Others laugh). I concerned most whether or not I can understand the English (source language).

Students also noted that they feel extremely nervous when asked by the teacher to do interpreting in front of the class.

In class, if the teacher asks us to do demo interpreting, immediately the feeling changes. In self-practice, you do it yourself and check the answer, and your performance turns out to be okay.

Perhaps you dread losing face. (Others laugh) ... You fear that you might lose face or commit mistakes.

Students felt that nervousness usually resulted in problems in interpreting, particularly information loss.

I feel nervous. When it happens, I make very stupid mistakes ... I remember that once I said "most largest", i.e., I had the word "largest" already but also added the word "most". This is very low-level mistake. Usually I don't make such mistakes. But when I'm nervous, I make stupid mistakes like that.

Sometimes my mind went totally blank. Once the interpreting teacher asked us to do the interpretation, to do it immediately after listing to a paragraph. Then I got so nervous that I only remembered several words. I felt so embarrassed ... I felt so nervous that I forgot everything.

(If I'm nervous), my interpretation will be incoherent and I will leave out a lot of information. The latter is more common.

I dread to think that I may get nervous in interpreting, and then I forget things I was prepared to say, i.e., I will leave out information.

However, a second year female student noted that a moderate degree of nervousness could turn out to be favorable in interpreting.

I think we should see both sides of nervousness. If you feel nervous, it means that you attached some importance to the (interpreting) test. When you feel nervous on some important occasions, it means you are excited about your performance. I think it is important to remain excited in interpreting, which shows you're at the wheel.

Motivation and interest in interpreting

a. Becoming an interpreter or not

Many students mentioned that they did not want to become interpreters because the job is too difficult or they were not confident enough in their own abilities.

> I think, as you know, the profession of interpreting is in huge demand of talents. I'm sure many people want to become interpreters, but the fact that you want to do it doesn't mean you can do it. The reason why there is huge demand of talents has everything to do with the difficulty of the job. I think it (interpreting) is very difficult.

> I want to (be an interpreter) but I feel it is too difficult. (Smile). I feel that there's a long way for me to go if I want to become a real interpreter, for example, in respects of pronunciation, expression, etc.

> Although I may not choose interpreting as my profession ... it is hard to say though, I will become an interpreter when I'm equipped with the competence ...

> I feel unconfident, and I don't think I'll succeed (in becoming an interpreter).

> I do want to (become an interpreter), but it is too hard. (Laugh). I don't think we have enough courses to prepare us for that (job). I want to join the profession, but I do not know how. I searched on the internet, but it is all anecdotes. I don't know how to start.

> I don't want to make interpreting my profession. It is too difficult. If I take it as my profession, I'm afraid I'll starve.

Others feel that the job of interpreting is too stressful, especially for girls. The following comments were made by second and fourth year female students.

It is too stressful. I don't like stress.

Interpreting is too stressful, I think. (Laugh). I think you'll get old quickly if you work as an interpreter, so it's not good for girls.

I don't really set high standards for myself. I won't become a simultaneous interpreter: I think it will reduce my normal lifespan. (Laugh). Consecutive interpreting might be better, I think. But even if I become an interpreter, I will only do the job for several years and then look for something more stable. As a girl, you shouldn't be too harsh on yourself.

Despite the difficulty and stress involved in the job, a few students did want to make interpreting or interpreting-related jobs their life-long profession. Two second year female students stated:

I chose English as my major and I feel good about it. (Others laugh). And in addition to feeling good, I want to have a good job after graduation. I admire the kind of job that allows more freedom. Another thing is that interpreters are cool. This is the main reason (for me to choose English as my major). (Smile; others laugh).

I want to work at the United Nations (after graduation).

A second year male student stated:

When I started to learn English in junior high school, I was very interested in the language. At that time, I had an ambition to become an interpreter. As for now, I believe that interpreting can make a good job, but I want to set a higher goal, that is to become an ambassador. I know I cannot make it in one step, so I will work on it step by step, to reach the peak of success. So I started the training of interpreting first, and then try to climb up the mountain step by step.

b. Learning interpreting for English enhancement

Many students, especially non-English major students, mentioned that their purpose of interpreting learning was not to become interpreters but for the enhancement of their language skills, especially English language skills.

> My major is Laboratory Medicine. I attended this interpreting training program because I was inspired by my father. Originally I intended to learn another foreign language such as French, but my father said that you have been studying English for years and stay at this level ... And my father continued, "if you have time, you should spend more time on English". And then I saw the promotion fliers of the training program, and I enrolled in the program ... After attending this program, I found that if I spare more effort to learn English, my achievement in English is worthy of imagination. (Laugh).

> My major is Fluid Mechanics, which is more science-oriented. I feel that I need a break from science occasionally so I choose to spend some time on English. (Laugh). (Others seem amazed). Then I think if you study science and later join a foreign company, you have to get into contact with many English majors. So I want to make this course the cornerstone for my further improvement.

Some English major students mentioned that it was their mission to learn interpreting and to gain the regional certificate of interpreting proficiency.

> I attend this interpreting training because I think that as an English major student, you need to have a powerful certificate to save face, and the regional interpreting certificate is one of them.

> I think interpreting is an important component of English language learning. You have to know it (if you're an English major student) ... Interpreting may happen now and then and you may need to start working out of the blue. For example, a foreigner comes in, and your boss might say, hey, come here, interpret what

he/she says. So you have to master it. If you want to master a language, you have to be able to interpret it.

If you are an English major student and you do not learn interpreting, how can you tell people that you are studying English?

Students mentioned that their interest in interpreting lay in the fact that it could help them enhance their English language skills. A second year English major male student said:

After learning interpreting, I found it is very useful in enhancing my English competence. So it does not matter if I pass the regional interpreting certificate test or not next year, I believe the training I receive on this course will be useful for me.

Students also mentioned that their interest in interpreting sometimes came from the possibility to enhance their specific language skills such as the expansion of vocabulary or the enhancement of listening skills.

(Interpreting) can help me to improve my vocabulary. I don't like the usual mechanical way of memorizing vocabulary.

(After learning interpreting), I became interested in people, culture, food, scenery, etc. so I think it (interpreting) becomes a huge impetus for my language learning.

After attending interpreting classes, I find that my listening skills have improved. (Others laugh).

c. Learning interpreting for knowledge expansion

Students also expressed their expectation of knowledge enhancement through the training and practice in interpreting.

> When I was in Year 2, I attended the Tri-University International Joint Seminar & Symposium and served as a receptionist and accompany interpreter. Although I was serving for delegates from Asian countries such as Indonesia, Japan and Thailand, I got to know different customs and cultures of different countries through such contact.

> In fact, not many will become interpreters after taking this (interpreting) course, but the common knowledge we learned in the course can be useful in our future careers.

d. Learning interpreting for a better future

Some students' motivation for learning interpreting was more utilitarian, i.e., to gain the interpreting certificate, job hunting or plainly for money. For example, some students mentioned their reasons for learning interpreting or becoming an interpreter were "the motive power of money" or "to earn the bread". Others seemed more concerned with the broader picture of their professional development.

> I attended this course with the purpose to gain the regional interpreting certificate. My major is English Teaching, and I feel that the profession of teaching is not so prospective ... (Others laugh). Of course I don't mean university teachers ... I mean, to teach at primary schools is not so promising, so I want to find a way out, and I started to learn interpreting.

> My major is Physics. I don't think there are many job opportunities for this major. Now I'm in Year 3 and have passed CET(College English Test)-4 and CET-6. I don't have a heavy study load, so I think if I gain an intermediate interpreting certificate, it can make my job hunting easier later.

e. Learning interpreting for self-satisfaction and self-challenge

In addition, some students mentioned that the learning of interpreting could help fulfill their self-satisfaction. A second year English major male student expressed his purpose to prove his own ability through the learning of interpreting.

> I attended this interpreting course because I want to get a certificate to prove my ability. And I want to make myself more occupied with this goal. As you know, boys might take it too easy in university life since there are not many people to keep an eye on them. I was like that, especially when I was in Year 1. I found that I had idled too much time away. I wanted to find something specific to keep me occupied, for my self-enhancement and enrichment, I guess. I didn't want to waste any more time. So I came to learn interpreting.

Another second year male English major student mentioned that his interest in interpreting was boosted after passing the regional proficiency test.

> After several attempts (on the regional interpreting test), I found it was not as difficult as I imagined, and my interest in interpreting started. I did not prepare much (for the test but passed it). My confidence (in interpreting) rose immediately. And so did my interest (in interpreting).

A second year female English major student expressed great expectations in personality enhancement through learning interpreting.

> I think that the learning of interpreting can help me gain confidence. Because I think that I'm kind of timid by nature. For example, if you put me on stage to give a speech, I will feel nervous. In interpreting, I know that you have to encounter that situation very often, so I hope it can help me.

A fourth year female student noted that doing interpreting could help improve her self-value.

In my opinion, in a person's life, (others laugh), one will grieve on it if he/she achieves nothing and then leaves the world. So one has to do something when he/she is still young and he/she should never idle his/her time away. I am good at nothing expect for my interest in English, and I want to do something to achieve my self-satisfaction, so I choose to learn interpreting. (Smile shyly).

3) Cognitive factors in the learning of interpreting

Students noted the influence of cognitive skills such as responsiveness, memory and multitasking skills in the learning of interpreting. Note-taking skills, also a very important factor in interpreting, were also included in this section.

Responsiveness and interpreting

Students commonly recognized that they could not respond fast enough in doing interpreting.

Also my response is not fast enough ... especially when interpreting numbers, my response is slow.

It happens too fast for me to respond.

I think perhaps I don't have enough time to switch in-between the languages, i.e., Chinese and English. (Smile).

When I listen to a sentence, I need to wait for a moment to think about its meaning after the whole sentence is finished. When I finish thinking, the next sentence is gone.

Students attributed their slow response in interpreting to the lack of preparation on vocabulary.

I think I cannot act fast enough. You need to prepare for some vocabulary beforehand ... If you have not touched upon it (the subject) before and go to the (interpreting) classes, your response (to interpreting the subject) will be slow. If the teacher gives us some introduction first, or lets us memorize some background information and vocabulary, we can deliver the interpretation in a quicker way.

It is perhaps because you do not have a large vocabulary. When you interpret from English into Chinese, you may fail to understand the source text. And sometimes, when you listen to a sentence, you understand every word of it, but when you think back about the meaning of the sentence, you cannot respond fast enough. Then it'll be difficult for you to render it (into another language) immediately. It's difficult.

Memory and interpreting

Students said that their memory was not good enough, which could often result in problems in interpreting. A second year female student said:

I usually forget the previous part when I listen to the next section – my memory is bad. I remember the information when I listen to it but as soon as I listen to the next section, it is gone.

A fourth year female student also noted her fear of memory failure in interpreting:

My fear lies in that I understand everything when I am listening, but I don't remember anything when I finish listening. (Smile).

A second year female student also mentioned her memory problem during the after-test group interview:

When you played the English source speech, I felt that I understood it all and I knew what it was about. The moment you asked me to interpret, I forgot everything.

Multitasking skills and interpreting

Poor ability in handling multiple tasks was highlighted by students as a great hindrance to enhancing their interpreting performance. According to students, the enhancement of multitasking skills was often related to the improvement of their note-taking skills.

I don't think that my mind and hand can work together. (Others laugh). For example, you note down numbers, and you usually omit other things, as there is not enough time for you to take care of everything.

I cannot listen and write at the same time, or listen and take notes at the same time. I have to focus on one thing, either listing or note-taking.

Note-taking skills and interpreting

Note-taking, as a very important skill pertaining to consecutive interpreting, takes up a substantial portion of the cognitive allocation during the process of the activity. Students noted that they encountered a lot of problems in their interpreting performance due to poor ability in note-taking, which often related to slow response or poor memory.

I don't know how to simplify my notes like professionals do: they use a lot of symbols in (note-taking) in interpreting. I usually write a lot, or maybe not that much; anyway, the problem is that I put something down, but I fail to understand it myself (when reading back my notes).

I think it's difficult to balance: Which should be written down? Which should be stored in your mind? I often note down too much, but some information is still missing.

Sometimes I find that I failed to note down the key points but made too much effort to note down the unnecessary points.

We started to practice note-taking this semester ... I feel that I can hardly follow (the techniques introduced by the teacher). It might have something to do with habit. I tried to force myself to memorize the symbols and abbreviations but still fail to follow the practice. I am too occupied with the way I learn English: I'm used to noting down the words in detail, including every symbol, which takes a lot of time.

I think the information load in interpreting is extremely heavy and it is hard to capture. When the audio is played, you start to take notes, but you do not know which should be the most important information. You feel that you have captured it all, but when you compare your interpretation to the reference text, you find that you have left out a lot of information. It is really difficult.

4) Language competence and the learning of interpreting

Students recognized that good language was crucial although not the only influential factor in the learning of interpreting. According to the students, their competence in their language skills, including speaking, listening, reading, writing, pronunciation, vocabulary and grammar, could sometimes be decisive in their performance in interpreting or their achievement in learning the skill.

I think interpreting is a very complex activity ... you need to be good at all (i.e., listening, speaking, reading and writing).

I think it (spoken language) is decisive (in interpreting).

If you are good at speaking, your interpretation will sound more fluent. It'll definitely be better (than others' interpretation).

I think he/she (with good spoken English) will have some advantages (in interpreting).

I don't have the opportunity to speak to foreigners often, so of course, my spoken English is bad. So comparatively speaking, in interpreting tests I do not have much advantage ...

I think listening is also very important. My listening ability is poor and I often fail to capture the information (in the source text).

I believe reading matters. If you don't have sufficient accumulation from reading, even if your grammar is correct, the stuff (your interpretation) won't sound like native English.

If you cannot write well, how can you speak it appropriately? We still need to have more practice in writing. I think it's good for English major students to write English diaries. Unfortunately, I don't do it habitually. Not necessarily diaries, as longs as you keep on writing something (it'll be useful) ... If you write more ... there will be something good about it eventually. The more you write, the better you feel at speaking. Otherwise it's easy to ramble (in your interpreting).

Many students noted their lack of proficiency in vocabulary, which created both understanding and expressing problems for them when interpreting.

I have very limited vocabulary in certain fields, such as finance.

I feel there is a long distance (between me and the real interpreters) primarily in the respect of vocabulary ... Sometimes there is a sentence you need to interpret

from Chinese into English. The Chinese is simple and easy to understand, but I cannot think of the words (to render it out).

If you have a large vocabulary, interpreting should be fun for you. The problem lies in listening (where vocabulary is concerned): you can easily get the rough meaning of the word by listening, but you don't understand it well enough (to interpret it into another language). As you know, interpreting is a complex activity, and challenging. If you know all the words, it'll really become something you can enjoy.

I don't have enough vocabulary. There are many words with Chinese features, but I don't know how to interpret them. There are many political words in particular, which are updated every year, such as the "three something", "four something", blah-blah. There are so many and you don't know how to translate them.

Besides the commonly recognized importance of English language competence, students also noted the importance of enhancing Chinese language competence for interpreting.

(Since my Chinese is not good), when interpreting from English into Chinese, I feel my Chinese renditions sound weird.

Now my Chinese reaches the level of my English, I mean syntactically. (Laugh). That is to say, it sounds similar to the grammar of English, but is totally different from the logic we have in Chinese.

5) Knowledge and the learning of interpreting
Knowledge specialization and the learning of interpreting (English vs. non-English major students)

Students highlighted the differences between English major students and non-English majors in learning interpreting, primarily in respects of knowledge or vocabulary reservoir. English major students generally regarded them as somehow restrained by their major and have a smaller range of knowledge. For example, the following comments were made by English major students:

> I think that the knowledge of English major students is somehow comparatively restrained to a smaller scope. Students from other majors study a field of specialized knowledge and the English language. They know something more.

> Our major (English major) is the narrowest, and we cannot expand our knowledge in this discipline.

> I don't think we have any advantage (compared to non-English majors). Normally, interpreting is about a certain discipline. English major students study many miscellaneous matters, but do not specialize in any discipline at all.

> I don't think there is a difference between (English and non-English majors as far as language is concerned), because the good ones (interpreters) are not necessarily those from English majors.

> So we have a lot of pressure, because non-English majors at least have a major, but we are majorless. It seems that we learn too many things in this major to know anything in depth or to become experts in any field.

> Compared to the others, for example, those who study law, not all of them, of course, compared to law students who are good at English or those who are even better than us at English, I think we are disadvantaged. Law students who can speak fluent English have clearly more advantages than us (English major students). It is because that we are a tool (of language) without any specialized knowledge (compared to them).

Many English major students, strangely, cannot speak English as well as those non-English majors.

If you study a specialized field, you know more about your discipline. So if the topic (of interpreting) relates to your own specialization, you can act calmer and do better.

As Zorro just said, you need to know a lot of background knowledge (to do interpreting). Take vocabulary for example, many words in interpreting are technical words or words in specialized fields, such as those in science, Fluid Science or Dynamic Engineering. It is impossible for us to know them all ...

Students of science have more advantages in language than English major students in the respect of specialized knowledge instead of language. When doing interpreting (in specialized fields), students with corresponding specializations know what renditions won't turn out to be absurd in these specific contexts. In contrast, English major students, when doing interpreting, may feel puzzled in searching for the appropriate equivalents, and sometimes make foolish mistakes.

Likewise, non-English major students recognized their advantages in interpreting in fields of their own specialization. They also noted the wider applicability of English major students who had exposure to an extensive range of subjects. For example, a second year female non-English student stated:

It depends (as to who does better in interpreting). We who study Fluid Science can do a better job when it (the interpreting) is about Fluid Science, while English major students can handle a wider range of subjects such as diplomatic interpreting, where they usually do better.

Topic familiarization and interpreting

Students mentioned that topics could influence their performance in interpreting. The following was mentioned by three fourth year English major female students:

> If the topic is too uncommon ... or about special fields such as medicine and technology, I may not be able to do it (the interpreting) well. If the topic is what I am familiar with ... such as those about university life, I can guesstimate the main idea.

> We are more familiar with those about culture or common life, but lack relevant vocabulary in fields such as finance and economics.

> For those close to daily life, you might have known the idea before listening, but if it is about something such as linguistics, (others laugh), you have to see if you're familiar with the relevant content. If it is something you are familiar with, you respond quicker, otherwise, you can hardly understand, especially when it (the source text) is long.

Students recognized that an insufficient amount of reading can be a major contributor to their limited knowledge scope. A second year female English major student noted:

> No matter it is interpreting from Chinese into English or from English into Chinese, a big problem is insufficient reading: we read too little.

Realizing that they were in need of relevant knowledge to improve their interpreting, a few students noted that reading (including reading newspapers) and the cultivation of interest in different cultures would be helpful.

6) Self-practice and the learning of interpreting

Students indicated different preferences in learning English and interpreting. Some preferred self-training and natural acquisition, while others stated their favor of classroom supervision and guidance. Regardless of their preferences in learning, students felt that both after-class practice and in-class exercise helped them with the enhancement of their interpreting skills. A fourth year male English major student mentioned the advantages of keeping contact with foreigners after class:

> I keep in contact with foreigners for many years. (Others laugh). We can explain to each other things we do not understand ... For example, there are many foreign teachers ... It's actually good to observe how they communicate with each other and how they talk to me. Sometimes we hang out together, which is very good.

Students also commented on the different benefits gained from classroom teaching and self-practice.

> Personally, I think there are two things in interpreting: vocabulary and note-taking. Teachers can help you with note-taking in interpreting classes. But you need to solve your own vocabulary problems.

> I feel that classroom learning is good, but you still need to practice after class.

Students agreed on the positive correlation between practice and their interpreting performance but noted that they did not really practice much after class due to lack of self-discipline or inappropriate time management.

> There are many things to do. There is no time for it (self-practice), and I can't spend too much time on it.

Unless the teacher assigns us to do it, I mean, forces us to do it, we forget about

it (self-practice) at all after class.

Also, many mentioned that in-class exercise is insufficient and called for more

class time for interpreting.

I feel that there is a lot to learn and practice in interpreting classes, but the class

time is too limited.

I don't think the class time is sufficient for this subject (interpreting). We should

have one or two more years of training in interpreting.

4.2.2 Findings from Teacher Interviews

Teachers were asked to fill in the teacher version of the *ILPPS* in addition to taking

part in the interviews. Figure 4.6 summarizes teachers' perceptions of problems in

students' interpreting. As seen from the figure, all four teachers thought that word-level

linguistic and meaning problems occurred most often in students' interpreting exercise,

i.e., "failure to produce corresponding words" and "incorrect rendition of words". The

problem of "omission" and that of "disfluency" were also noted by three teachers. As

for teachers' consideration of fatalness of problems in interpreting, all four teachers

judged "omission" a fatal problem, whereas "incomprehensible rendition" was

considered fatal by three teachers.

Figure 4.6 Teachers' perceptions of problems in students' interpreting
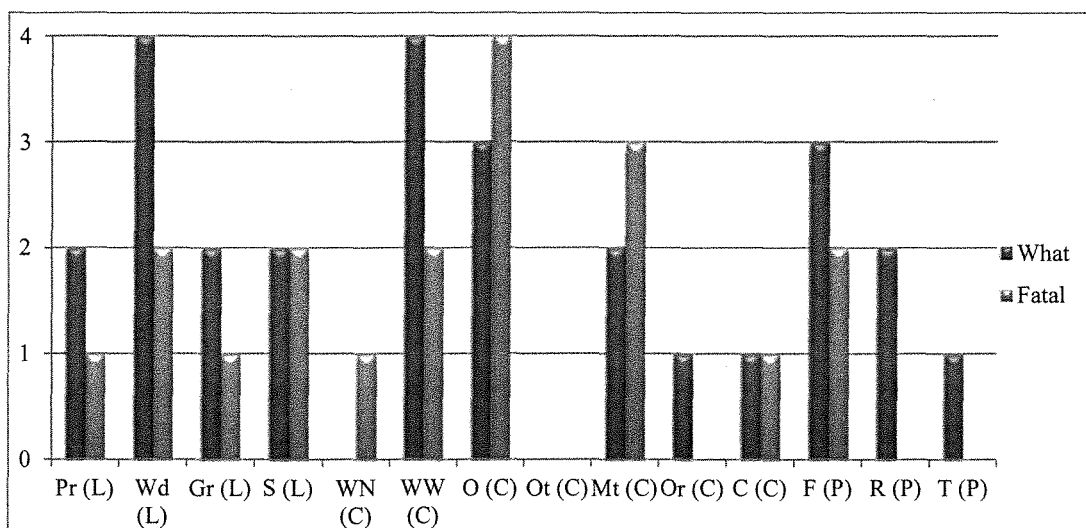
	Pr (L)	Wd (L)	Gr (L)	S (L)	WN (C)	WW (C)	O (C)	Ot (C)	Mt (C)	Or (C)	C (C)	F (P)	R (P)	T (P)
What	2	4	2	2	0	4	3	0	2	1	1	3	2	1
Fatal	1	2	1	2	1	2	4	0	3	0	1	2	0	0

Note: See Table 3.2 for a list of the problem codes in the figure.

Figure 4.7 displays a brief summary of teachers' perceptions regarding the influence of different learner variables on students' problems in interpreting. Teachers unanimously agreed that language competence and students' mastery of interpreting skills were related. Three teachers noted that the time length of interpreting learning and interests in other fields may also be relevant.

Figure 4.7 Teachers' perceptions concerning the relationship between learner variables and students' problems in interpreting

Age	Family background	Dialect	Language competence	Time of study	Attitude	Multi-task ability	Interests in other fields	Interpreting skills
0	1	0	4	3	1	2	3	4
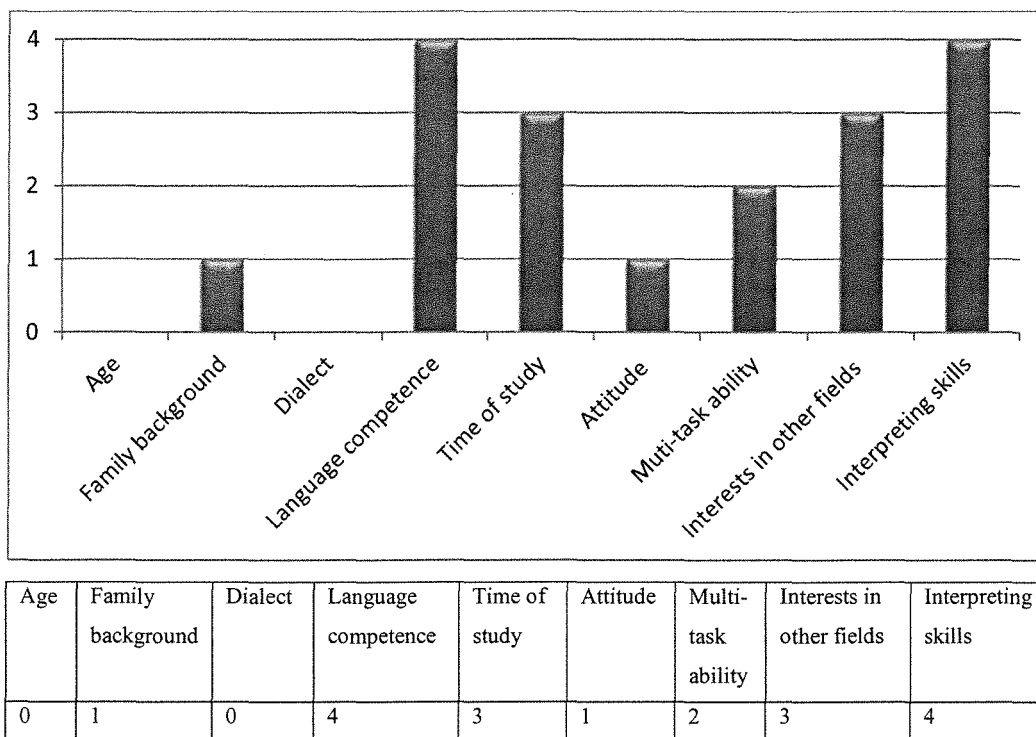
It should be noted that the figures presented in this section did not imply any quantitative significance but were provided to better profile the participants of the interview study.

The following are the major themes identified from the transcripts of individual teacher interviews.

1. Problems in students' interpreting

    1) Content information problems in students' interpreting

        a. Incomprehensibility in students' interpreting

        b. Mistranslation in students' interpreting

        c. Omission in students' interpreting

        d. Coherence and students' interpreting

    2) Language problems in students' interpreting

        a. Pronunciation problems in students' interpreting

b. Failure to produce corresponding words in students'
interpreting

c. Incomplete sentences in students' interpreting

    3) Delivery problems in students' interpreting

2. Individual differences in learning interpreting

    1) Family background and the learning of interpreting

    2) Dialect and the learning of interpreting

    3) Language competence and the learning of interpreting

    4) Knowledge and the learning of interpreting

    5) Interpreting skills and the learning of interpreting

       a. Note-taking and the learning of interpreting

       b. Multitasking skills and the learning of interpreting

    6) Affective factors and the learning of interpreting

       a. Motivation and attitude in the learning of interpreting

       b. Nervousness and the learning of interpreting

    7) Class time and the learning of interpreting

4.2.2.1 Problems in Students' Interpreting

1) Content information problems in students' interpreting

As with students, teachers regarded successful rendition of information as the greatest priority in interpreting.

> We usually talk about fidelity, expressiveness and elegance (in translation). Fidelity should be the most important. Without content, nothing counts.

> The major task of interpreting is to pass on the information. The task is not completed if you fail to render the information or fail to understand (the source text), which, I think, are the most fatal.

Problems noted by teachers concerning content information rendition consists of incomprehensibility, mistranslation, omission and incoherent rendition.

Incomprehensibility in students' interpreting

Teachers felt that incomprehensibility was one of the most intolerable problems in students' interpreting.

I think most problems (in students' interpreting) are trivial, such as grammar problems. Incomprehensible rendition, however, is a big problem.

It (incomprehensible rendition) is the most fatal. It totally fails the purpose of interpreting. If your rendition is incomprehensible, what is the meaning of your participation? Such interpretation is a total failure.

I have lowered the standard for my students as I know you cannot apply the criteria for professional interpreters to them. I think if they can make me understand, and if there is no serious mistake in the major information, I will give them a pass. At the beginning, I told them to use simple sentences and try not to make too many grammar mistakes. Now my emphasis is that they can make me as well as their classmates understand (what they are talking about), and then they can (pass) ...

I think information is the most important. It does not matter whether or not your rendition is correct, or whether or not you have language problems such as grammar mistakes and tense errors; as long as others understand you, your purpose of interpreting is achieved.

For example, in English to Chinese interpreting, I as a Chinese don't understand the interpreter's rendition in the language. Or in Chinese to English interpreting, I do know now what he/she aims at in his/her blah-blah-blah ... Chinese people don't understand his/her Chinese, and English people don't understand his/her English (in the interpretation). Issues like that.

Mistranslation in students' interpreting

Also, teachers noted that wrong rendition was a very serious problem in interpreting.

If the student did not get the idea (of the source text) at all and starts talking irresponsibly, it is definitely unacceptable. I cannot hire an interpreter to talk total nonsense to me, right?

If a student fails to follow the meaning or fails to interpret according to our rules in interpreting such as being truthful, I will fail him/her.

For example, if the source text means one thing, and the rendered language means something totally irrelevant or incorrect, it is definitely unacceptable.

Teachers emphasized the importance of correct rendition of word meanings in interpreting.

If you use a wrong word, there might be a lot of problems. As you know, the major task of translation is selection of words ... It is about selection of words and the combination of words into sentences. If you use a wrong word which causes political misunderstanding, there might be big international disputes.

Teachers also addressed the problem of incorrect rendition of numbers.

Translating the numbers wrong can cause great trouble.

Actually numbers are easy to translate, but it seems that students cannot react fast enough (when they encounter numbers). I have taught them the way to translate (numbers). Some master the skills fast, very fast, but some (cannot make it) ...

Omission in students' interpreting

In addition to incorrect rendition of information, teachers considered omission of information a serious problem.

I dread it if some important information is lost in interpreting.

There will be comparatively more information loss especially when it (the source text) is long. It seems that students leave out more information when interpreting from English into Chinese. In Chinese to English interpretation, it is comparatively better ... Students seem to have no idea how to capture information. Sometimes they captured the trivial parts only. For example, they captured the prepositions, but failed to capture the pronouns. They don't know how to capture the important points.

Coherence and students' interpreting

Teachers noted that coherence was important in interpreting, which often related to the comprehensibility of the interpretation.

As an interpreter, you should be able to sort things out, even if it (the source text) sounds confusing.

One feature of incoherent rendition is that there is no logic between sentences. Perhaps the student fails to take notes well, resulting in lack of connection between messages. Perhaps the student fails to understand his/her own notes, and then his/her rendition becomes incredibly absurd.

A teacher mentioned an exceptional case, in which tolerance was allowed on partial mistranslation when the interpretation sounds coherent.

I remember a student ... It seems that he/she failed to understand some information (in the source text). Based on his/her understanding, he/she

reorganized the information and delivered the interpretation confidently. So I gave him/her a score for that part ... Even though he/she failed to understand (all of the information in the source text), based on his/her understanding and world knowledge, he/she tried to give another, or similar rendition with confidence. I'd rather hire a guy like that, compared to a guy who doesn't say a word when he/she doesn't understand, leaving the listeners nowhere. So I let that student pass, but it was an exceptional case.

2) Language problems in students' interpreting

Teachers noted that there were many language problems in students' interpreting, which often result in difficulty in understanding their interpreted outputs. Language problems mentioned by teachers included the problems of pronunciation, grammar, finding corresponding words and incomplete sentences.

Pronunciation problems in students' interpreting

Teachers noted that pronunciation problems may influence the comprehensibility of students' interpretation.

When the pronunciation is wrong, the meaning transfer may be influenced and your interpretation may cause understanding difficulty to your listeners. Perhaps it concerns only one word or several words, but the whole sentence may become incomprehensible.

Pronunciation problems have different levels of gravity ... If it reaches a very serious level – I think stress problems might be acceptable, but if you pronounce the word in an incorrect way – people may not be able to understand you ... I mean if the word is pronounced totally wrong. If an interpreter pronounces "interesting" into "interesting" (with the stress on "ting"), we can still understand the word, though it'll definitely damage the image of the interpreter and the country he/she represents ... But if you pronounce the whole word wrong, it can mean a different thing.

A teacher mentioned that although it often occurred in students' interpretation, pronunciation was not a fatal problem.

It often occurs, inaccurate pronunciation ... However, I can usually understand students' interpretation even with inaccurate pronunciations ... I think, if I can understand, other students can understand. It doesn't matter if a student's pronunciation is correct or not; as long as it is comprehensible, it is within the acceptable range.

Failure to produce corresponding words in students' interpreting

Teachers highlighted that failure to produce corresponding words was the greatest problem of students when interpreting from Chinese into English.

When interpreting from English into Chinese, students seem to be fine. As long as they capture the message (in the source text) and take appropriate notes, their interpretation is usually okay. But when interpreting from Chinese into English, students usually fail to interpret well as they cannot produce the corresponding words in the target language.

Teachers noted that failure to produce corresponding words could become a trigger for many problems in interpreting.

Failure to produce corresponding words is the primary (fatal) problem with my students. If the students could find the corresponding words, they would not produce sentences with that kind of (lousy) grammar. And they often pause, or pause too often to search for a word or a sentence. With some many pauses, the sentence structure lost its original shape. So I think a great problem of my students is that they pause when they don't know how to translate a certain word.

Incomplete sentences in students' interpreting

A teacher noted the impact of incomplete sentences in interpreting.

A sentence has different information structures: the focus of a sentence may be at the beginning or the end of it. If you fail to produce the full sentence, what you leave out might be the key information, or you might create a false image that there is more to come, but you don't really finish, resulting in incomprehensibility in your rendition.

3) Delivery problems in students' interpreting

Teachers recognized that students' interpreting work often included unnatural pauses and unnecessary fillers, which, although tolerable at the beginning of interpreting learning, was against the norm of the profession.

Maybe it (disfluency) is tolerable (in students' interpreting). But for professional interpreters, of course it'll be unsatisfying (if they have fluency problems).

There are too many silent pauses in students' interpreting work, which are not acceptable according to the criteria in interpreting.

A teacher attributed the problem of disfluency to students' language deficiency and nervousness.

In most cases of it (disfluency) can be attributed to two factors: the student's language competence might be low, or he/she is a green hand in this field and therefore is very nervous during the task.

4.2.2.2 Individual Differences in Learning Interpreting

1) Family background and the learning of interpreting

Teachers stated that differences in students' family background could exert some latent influence in their learning of interpreting.

Family background is like the black words on blank paper. The student is a piece of blank paper, but the black words are there. Whatever tasks the student performs, including interpreting, he/she brings the black words along.

Interpreting is primarily about language. Family background may have great influence on students' language ... Students come from different family backgrounds. For example, some parents are peasants and work in the cropland, some might be civil servants, and some might even have been abroad before. Some kids might have been taken abroad by their parents, or always remain at the hometown, which may be a small town or a village. Such differences in their family background may result in differences in the information pre-stored in students' brain ... When your social network is different, your language or diction might also differ.

There might be some potential differences (resulting from differences in family background), which may not be easily felt. But when the student starts interpreting, they (such differences) might appear.

Family background might influence students' education. For example, a kid born with good family background might have started spoken English practice with foreign teachers ever since 5 or 6. Such a kid might have comparatively good pronunciation or have some certain feelings towards language. Since the kid had contact with the foreign language when he/she was small, compared with his/her peers in respects of the language or trainings related to the language such as interpreting or translation, he/she should have more advantages. If a kid does not enjoy good family background, he/she might start to learn English no earlier than high school. Even in senior high, he/she might not be able to receive extra training of the language but may only have access to teachers' instructions in class. Such a kid is in a situation comparatively less advantageous that the first kid. However, it (family background) is not decisive. It is an indirect factor.

2) Dialect and the learning of interpreting

In addition to family background, teachers addressed the indirect influence of dialect in the learning of interpreting.

> Speaking a dialect may have two sides. The dialect of a student may influence his/her interpreted language. For example, a student's interpreting into Putonghua might include non-standard pronunciation affected by the dialect. Such an influence is negative. But there might be something positive about speaking a dialect. For example, if a student can speak both a dialect and Putonghua well, he/she can do a better job in simultaneous or consecutive interpreting between the dialect and Putonghua (than those who don't know the dialect). He/she may be more skillful in language transfer.

3) Language competence and the learning of interpreting

Teachers agreed that language competence, including language sub-skills such as listening and speaking, was crucial to students' interpreting achievement.

> I think, as long as your language is good, you can easily polish other aspects (in interpreting). At least you have the foundation there. The other skills (in interpreting) are like the bricks, with which you can build, design or think about ways (to improve your final work). But if you aren't even qualified in the threshold of language, you have no way out. You may not be able to become an interpreter or do anything related to language in your whole life. Without the ability in translation/interpretation, language, vocabulary or grammar, how can you become a good interpreter?

> Students' should satisfy the prerequisites in both listening ability and vocabulary before attending the training of interpreting.

You should work with students on their language competence first. Only when their language is improved can they have the opportunity to improve their interpreting skills and then be able to interpret successfully.

For example, listening ability is closely related to students' understanding in interpreting ... Students' abilities in language expression and grammar also matter.

Teachers mentioned that the deficiency in language competence usually resulted in all kinds of problems in students' interpreting performance, including meaning, delivery and language problems. Among the many problems related to students' language deficiency, problems in capturing the information or incomprehensibility in their rendition were the most common.

If students are deficient in language competence, they can neither understand (the source language) nor can they express well (in the target language) ... Chinese matters as well. The Chinese used by students (in interpreting) is sometimes greatly influenced by the English source language ... The greater problem usually concerns English, though.

Language deficiency is usually related to (the capture of) information (in interpreting) ... and also delivery ... but more to information.

(Students' problem in incomprehensible or disordered rendition is) all due to their insufficient mastery of the language and their low level of language competence.

Most problems are related to students' English (competence). One possibility is that the student, with insufficient listening ability, fails to understand the source text. Without the information, his/her rendition becomes incomprehensible.

Despite the importance of language competence in interpreting, teachers noted that students' language competence was usually not satisfying.

My students seem to have the greatest problem with listening. The situation seems to be better in Chinese to English interpreting compared to English to Chinese interpreting. However, even if the students understand (the source language), they usually have difficulty in expression (in the target language).

Many students don't have a strong language foundation. For example, a lot of students don't have good listening ability in the language. Without comprehension of the materials by listening, how can you interpret in class? Even students with good (language competence) usually fail to practice their oral language enough in their daily exercise ... So I think language is a basic problem for both good students and comparatively less competent students.

Students' limitation in vocabulary was also highlighted by teachers as a problem trigger in interpreting.

Students seem to be poor at vocabulary. When they encounter words they don't know, they do not even know how to paraphrase them.

I think that it's all due to the fact that students do not have an appropriate amount of vocabulary that they fail to produce corresponding words in interpreting. For example, in diplomatic interpreting, students do not even know the words heard, and then they cannot find the words in the target language, so they start to make up words. You can sense that their interpretation is not correct.

4) Knowledge and the learning of interpreting

A teacher mentioned the importance of cultural competence, in addition to students' language competence in interpreting.

The foreign culture (matters in interpreting). For example, if there is such a sentence in the English source language: I'll go back to the salt mines, when directly translated into Chinese, Chinese audience might not be able to know the meaning of the sentence at all. Problems like this can be very serious.

Teachers also noted the importance of interests in knowledge of different fields.

When students have an interest in what they are doing, they absorb more knowledge in the field. When students possess knowledge in different aspects, they will be better equipped with relevant background knowledge when doing interpreting, which can help them better understand (the source text).

Furthermore, teachers mentioned that familiarity with the topic could result in better performance in interpreting.

If students are familiar with the content in the source text, they may capture the ideas immediately. Otherwise, if students don't know the topic at all, they may understand the source text, not to mention its main idea.

When interpreting from Chinese into English, even if the student understands the source language, there might still be problems. If the student doesn't know about, say, foreign trade, when terms such as CIF (Cost, Insurance and Freight) or FOB (Free on Board) are mentioned, there is no way for him/her to interpret them, right? ... So I think familiarity with the topic does matter in interpreting.

Likewise, teachers noted the differences between English and non-English major students in interpreting regarding their knowledge construction.

If an English major student has a wide interest in different fields of knowledge, then he/she might have more advantages (in interpreting). But when an English major student is not so interested in other fields but only wants to muddle along

his/her way towards graduation, he/she might be disadvantaged as compared students from other majors. For example, students who major in Finance might at least pay more attention to vocabulary in that filed. But many English major students don't have such knowledge.

5) Interpreting skills and the learning of interpreting

Teachers mentioned that sometimes students confuse the requirements between interpretation and translation.

I think, as to the mastery of interpreting skills, students should first know the differences between interpreting and translation ... Yesterday we had an interpreting exam, and I asked one student, "You do not sound like you're doing interpreting (in the exam) ..." He said, "Yes. I prefer doing interpreting while I'm reading" ... The fact is that he did not really know what interpreting is. He did not really change from his habitual thinking (about translation).

Teachers noted that a lack of interpreting skills could result in problems in interpreting performance. They also emphasized that language skills, rather than interpreting skills, are fundamental to interpreting.

I think language competence is the foundation, whereas interpreting skills are the method for you to build the house.

Without interpreting skills, one might create logic confusion or suffer information loss during the language transfer. He/she might not know how to do note-taking. Due to the lack of professional knowledge, he/she might only be able to complete 60% to 70% of the task. But if one has the relevant skills, he/she may complete 100% of the task, given a sound language foundation. So I think interpreting skills are the ornaments for one's interpreting performance, but they're not sufficient.

Teachers in the interviews addressed in particular the note-taking skills and multitasking skills.

Note-taking and the learning of interpreting

Teachers mentioned that they had a hard time correcting students' bad habits in note-taking.

> Students don't know how to take notes at all ... They use large pieces of paper and compare with each other to see who notes down the most. They're proud of themselves if they can note down everything ... They have no idea about paper requirement or the use of symbols. They don't know that notes should assist (memory in interpreting).

> Due to time constraints, I cannot correct every student's notes ... It seems to be difficult for the students to get what to note down or what the key information should be. They usually note everything down. I told them many times (how to take notes in the correct way) but it is useless ... They cannot take notes and listen at the same time. So when I ask them to interpret without taking notes even for ten minutes, they can do well. But they often fail when they start taking notes.

Multitasking skills and the learning of interpreting

Teachers also noted students' deficiency in multitasking.

> Students seem to understand (the source text) when listening, but they soon forget. It is because they do not have the ability to handle different tasks at the same time.

> It seems that students cannot listen and take notes at the same time. They take notes and fail to listen. Their ability to simultaneously handle different things seems to be bad.

6) Affective factors and the learning of interpreting

Motivation and attitude in the learning of interpreting

Teachers recognized that students who came to learn interpreting might not all want to become interpreters.

> Many students aim to enhance their language abilities by attending the course. They do not really aim to become interpreters. They don't have sufficient competence for that aim (of becoming interpreters) at this stage.

Also, a teacher noted that students usually had different motivations in interpreting classrooms, which more or less influenced their performance in learning the skill.

> Those who aim to pass the regional interpreting certificate usually work harder, for example, memorizing more words. Students who aim to gain the credit only may not do extra exercise at all. They know that the teacher will give review lessons and tell them the topic range of exams, so it's enough to just digest what the teacher says.

Nervousness and the learning of interpreting

Teachers noted that students tended to be nervous or afraid of making mistakes in interpreting classes. They tried to create a supporting classroom environment for students.

> There are too many students in my class. So I often take the leading role in the classroom. Sometimes I find that I speak too much. Then I ask students to interpret one by one ... In interpreting, usually there is a time constraint. Many students turned out to be wordless within those several seconds. They are wordless, feeling nervous. When they start to speak, the time has already passed.

> They are some students who are interested (in interpreting) but also get scared of it ... So I tried to first reduce the fear of the students. This is simple. We tried

something simple first. As you know, students' language competence is not that high. So we tried to lower the difficulty level first, to make them feel that interpreting is not that difficult.

In interpreting classes, students dare not speak as they are afraid of making mistakes. When we ask a student to interpret a sentence or even simply to read a sentence out, they dare not speak, fearing that they might understand incorrectly or they might fail to find the correct words. They refuse to speak. I often try to encourage students to talk in this case. I will ask them to at least open their mouth to say something, based on which, I offer relevant background information to them. After comprehension, they try to give me the new expression ... I encourage them all the time and find it is really very effective ... Perhaps students of this cohort are more diligent. Another teacher also feels this way. The classroom environment is much better. Whenever you ask something, they will try to cooperate with you.

7) Class time and the learning of interpreting

Like students, teachers noted that class time is too little. They also agreed that classroom training was useful for students.

(The lack of class time affects) particularly note-taking, which requires a lot of practice.

There is too little time for students to practice in class ... Although there are not many students in class – around 20 – sometimes I find that there is only time for me to correct a few mistakes of them and at most practice one or two passages.

After learning (interpreting) in the course, at least students have the idea what interpreting is. Students in my class can know more than those who have no contact with interpreting at all. Or they pay more attention to problems in interpreting. I think, after this period of training and practice, students know

relevant coping strategies when they fail to understand something (in the source text) or fail to find the corresponding words. I think the course is important for them. Of course, if there is more time, or if they can be trained more intensively, their achievement related to interpreting can be higher.

4.3 Findings from the Corpus Analysis

The software *Wordsmith 5.0* (Scott, 2008) was applied in the corpus-based analysis of the students' outputs. Students' under-evaluated problems, i.e., "inaccurate pronunciation" and "repetition and self-correction", were coded and analyzed specifically.

4.3.1 Basic Statistics

The learner database analyzed in this study included 77 participants' consecutive interpreting outputs of two Chinese source texts, lasting a total of 21,483 seconds, i.e., over 358 minutes (excluding the time of the source speeches). Table 4.36 displays the basic statistics of the database. According to the table, the learner database consists of 20,846 running words, with a type/token ratio of 7.24%. The mean word length is 5.16 letters, while the mean length of sentences is 23.81 words (including repetitions and fillers).

Table 4.36. Basic statistics of the learner database

Tokens	Types	Type/Token Ratio	Mean word length (in letters)	Word length SD	Words/ sentences	SD
20846	1319	7.24	5.16	3.73	23.81	19.92

Note: Tokens: running words in text; Types: distinct words; SD=Standard Deviation.

Table 4.37 provides a comparison of the basic statistics between the reference target text and students' interpreted texts. As can be seen from the table, students' interpreted texts generally displayed a lower level of type/token ratio, with the exception of four texts out of the 77 in total. Meanwhile, students' mean word length on average

was shorter than that in the reference target text, but the number of words in their interpreted sentences on average was larger than that in the reference target text.

Table 4.37 Basic statistics of the reference target text and students' interpreted texts

		Tokens	Types	Type/Token Ratio	Mean word length (in letters)	Word length SD	Words/ sentences	SD
Reference target text		241	142	58.92	5.52	3.85	21.91	11.81
Students' interpreted texts	Ave.	239.66	113.96	48.52	5.19	3.76	25.89	19.30
	Min.	77	55	34.05	4.67	2.99	12.10	7.10
	Max.	370	146	71.43	6.12	5.02	51.20	49.02

Note: Tokens: running words in text; Types: distinct words; SD=Standard Deviation.

Table 4.38 and Table 4.39 show the top 20 frequently used words in the reference target text and those in students' interpreted texts respectively. A comparison of the two tables suggests that students tended to use more content words in their interpreted outputs than the reference target text. The pronouns "I" and "we", with a frequency of 234 and 185 respectively, took up a combined 2.30% of students' interpreted texts, but did not appear in the top 20 frequently used words in the reference target text. Meanwhile, frequently used function words such as "that", "with" and "on" were missing in the list of the top 20 words used by students. Of the content words used, words such as "graduates", "mainland" and "business" in the reference target text tended to be underused by students in their interpreted texts, whereas words such as "students" "Hong Kong" and "people" were overused by students in their interpreted texts.

Table 4.38. Top 20 frequently used words in the reference target text (in comparison with those in students' interpreted texts)

Reference target text				Students' interpreted texts		
N	Word	Freq.	% (coverage)	N	Freq. (average)	% (coverage)
1	the	15	6.22	1	22	9.39
2	and	11	4.56	2	9	3.91
3	in	9	3.73	3	7	3.16
4	of	8	3.32	8	5	1.98
5	to	8	3.32	4	6	2.66
6	graduates	5	2.07	29	1	0.63
7	that	5	2.07	25	2	0.68
8	for	4	1.66	18	2	0.93
9	mainland	4	1.66	23	2	0.75
10	students	4	1.66	6	6	2.49
11	with	4	1.66	30	1	0.63
12	are	3	1.24	13	3	1.28
13	been	3	1.24	469	0	0.02
14	is	3	1.24	7	5	2.13
15	on	3	1.24	89	1	0.22
16	their	3	1.24	11	3	1.31
17	a	2	0.83	37	1	0.51
18	as	2	0.83	33	1	0.57
19	business	2	0.83	119	0	0.15
20	China	2	0.83	16	3	1.07

Table 4.39. Top 20 frequently used words in students' interpreted texts (in comparison with those in the reference target text)

Students' interpreted texts					Reference target text		
N	Word	Freq. (average)	Freq. (total)	% (coverage)	N	Freq.	% (coverage)
1	the	22	1710	9.39	1	15	6.22
2	and	9	713	3.91	2	11	4.56
3	in	7	576	3.16	3	9	3.73
4	to	6	484	2.66	5	8	3.32
5	from	6	463	2.54	24	2	0.83
6	students	6	454	2.49	10	4	1.66
7	is	5	388	2.13	14	3	1.24
8	of	5	361	1.98	4	8	3.32
9	Hong-Kong	4	308	1.69	26	2	0.83
10	people	4	283	1.55	30	2	0.83
11	their	3	238	1.31	16	3	1.24
12	about	3	237	1.30	N/A	0	0
13	are	3	234	1.28	12	3	1.24
14	I	3	234	1.28	27	2	0.83
15	university	3	231	1.27	38	2	0.83
16	China	3	195	1.07	20	2	0.83
17	we	2	185	1.02	N/A	0	0
18	for	2	170	0.93	8	4	1.66
19	Two-thousand-and-eight	2	145	0.80	37	2	0.83
20	Chinese	2	144	0.79	21	2	0.83

Table 4.40 displays the key words based on the comparison between the reference target text and students' interpreted texts. According to the table, words from 1 to 11 were key words used in students' interpreted texts while the other four words, i.e., "to", "in", "and" and "the" were used significantly more in the reference target text.

Table 4.40 Key word comparison between the reference target text and students' interpreted texts

N	Key word	Freq.	%	Freq. in the reference target text	%	Keyness*	P
1	their	238	1.31	3	1.24	2479.349365	0.0000000000
2	are	234	1.28	3	1.24	2413.621094	0.0000000000
3	for	170	0.93	4	1.66	1601.850098	0.0000000000
4	mainland	137	0.75	4	1.66	1250.528809	0.0000000000
5	that	124	0.68	5	2.07	1111.724609	0.0000000000
6	of	361	1.98	8 ·	3.32	1046.696899	0.0000000000
7	graduates	115	0.63	5	2.07	1022.16333	0.0000000000
8	with	114	0.63	4	1.66	1018.828003	0.0000000000
9	is	388	2.13	3	1.24	822.6272583	0.0000000000
10	on	40	0.22	3	1.24	332.3216248	0.0000000000
11	students	454	2.49	4	1.66	200.4923706	0.0000000000
12	*to*	*484*	*2.66*	*8*	*3.32*	*-98.89854431*	*0.0000000000*
13	*in*	*576*	*3.16*	*9*	*3.73*	*-876.0953369*	*0.0000000000*
14	*and*	*713*	*3.91*	*11*	*4.56*	*-1948.011963*	*0.0000000000*
15	*the*	*1710*	*9.39*	*15*	*6.22*	*-8050.142578*	*0.0000000000*

Note: * Dice coefficient, based on 553 and 16 types of 3 or greater frequency = 0.000.

4.3.2 Inaccurate Pronunciation

Inaccurate pronunciation in this study was analyzed at segmental level. Word-level stress problems were also included in the analysis. Among the total 20,846 tokens in the learner database, there were 631 occurrences of pronunciation problems, taking up a proportion of 3.46%. Table 4.41 outlines a summary of the frequency and percentage of different types of pronunciation problems in the learner database. As seen from the table, students' greatest problem in pronunciation was mispronunciation/substitution of consonants, which was followed by mispronunciation/substitution of vowels, whereas misplaced stress at word level did not take up a very large percentage, i.e., only 4.91%.

Table 4.41. Pronunciation problems in the learner database

Pronunciation problems			Frequency	Percentage (%)
Segmental problems	Consonant problems	Substitution	252	39.94
		Insertion	40	6.34
		Omission	49	7.77
		Sub-total	341	54.04
	Vowel problems	Substitution	202	32.01
		Insertion	25	3.96
		Omission	12	1.90
		Sub-total	239	37.88
	Both	Substitution	3	0.48
		Insertion	8	1.27
		Omission	9	1.43
		Sub-total	20	3.17
	Sub-total		600	95.09
Word-level stress problems			31	4.91
Total			631	100

To investigate the patterns of individual pronunciation problems of mispronounced consonants and mispronounced vowels, the software *Wordsmith 5.0* was applied to analyze the learner data. Table 4.42 shows the words most susceptible to substituted/mispronounced consonants. A further examination of the coded database suggest that the consonants of "l", "th", "r" were usually mispronounced in these words.

Table 4.42. Wordsmith collocation list of mispronunciation of consonants (sorted by L1 position)

N	Word	With	L1
1	level	p_c_w	14
2	the	p_c_w	10
3	these	p_c_w	9
4	low	p_c_w	9
5	English	p_c_w	7
6	this	p_c_w	7
7	university	p_c_w	7
8	China	p_c_w	6
9	lower	p_c_w	6
10	their	p_c_w	5
11	from	p_c_w	5
12	earthquake	p_c_w	5

Note: L1 frequency >=5.

Likewise, Table 4.43 displays the words that most often occurred with vowel mispronunciations in the learner database. Learners tended to have difficulty in differentiating the pronunciation of "u(/ju/)" and "u(/jəu/)", "i(/ai/)" and "i(/i/)", "e(/i:/)" and "e(/ei/)", "o(/ɔ:/)" and "o(/ə:/)", "o(/ɔ/)" and "o(/u/)" in these words.

Table 4.43. Wordsmith collocation list of mispronunciation of vowels (sorted by L1 position)

N	Word	With	L1
1	graduates	p_v_w	19
2	crisis	p_v_w	17
3	graduate	p_v_w	10
4	the	p_v_w	9
5	we	p_v_w	9
6	absorbed	p_v_w	6
7	Hong-Kong	p_v_w	5
8	recent	p_v_w	5

Note: L1 frequency >=5.

4.3.3 Repetition and Self-Correction

This section includes findings regarding repetition and truncated segments in learners' interpreting texts, a combination of which occurred in 19.91% of the total 20,846 running words in the database.

4.3.3.1 Repetition

1) The pattern of repetition

Repeated words, with a total number of 3,067, took up a percentage of 14.71% of the overall tokens of the learner database. Learners repeated a word from one to seven times in a string. Figure 4.8 displays the percentages of words repeated once (<r1>), those repeated twice (<r2>), three times (<r3>), four times (<r4>), etc. As shown in the figure, about four fifths of the repeated words occurred once only, and 14.77% of the repetitions were continued for a second time. There were two extreme cases where students repeated a word up to seven times, taking up a percentage of 0.07% of the tokens in the database.

Figure 4.8. Repeated words by time of repetition in the learner database
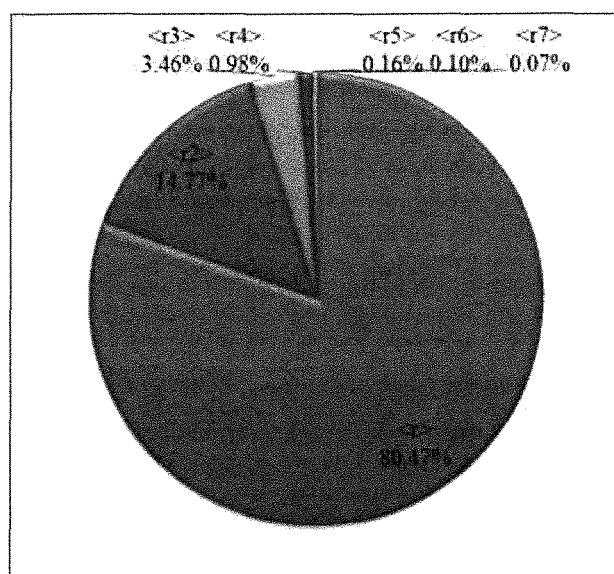
There were a total of 1,831 occurrences of self-repetitions, including repeated words and word strings. As shown in Figure 4.9, over three quarters of the repetitions led to successful confirmation or correction of expressions, whereas nearly one quarter of the repetitions remained unsuccessful.

Figure 4.9. Features of repetitions in the learner database
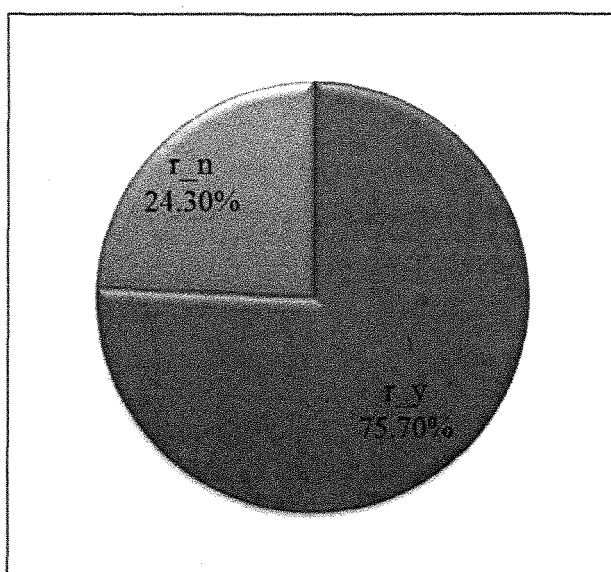
Figure 4.10 illustrates the distribution of types of repetitions. According to the figure, 63.08% of the repetitions occurred at the lexical level, 35.45% at the syntactical level and 1.47% at the phonological level.

Figure 4.10. Types of repetitions in the learner database

Figure 4.11 displays the distribution of possible causes of repetitions. As seen from the table, almost a half of the repetitions were caused by the intention of articulation, and approximately a quarter of them by lexical shift. Close to one fifth of the repetitions were accountable by the intention to gain time for articulation, leaving the rest of 8.90% of the repetitions caused by syntactical shift.

Figure 4.11. Possible causes of repetitions in the learner database

2) The collocations of repetition
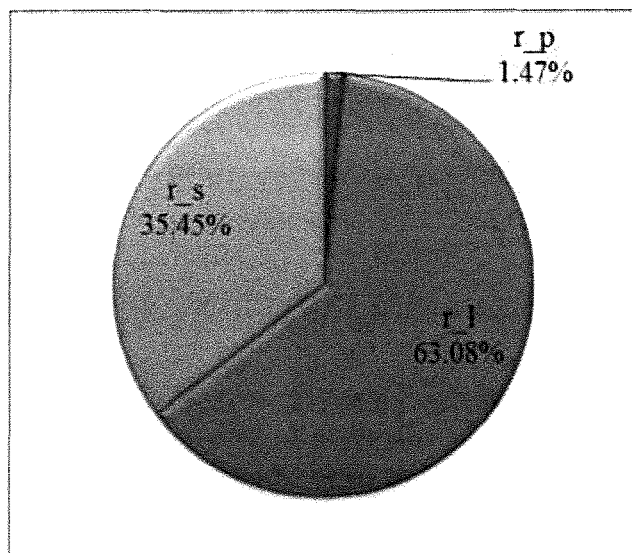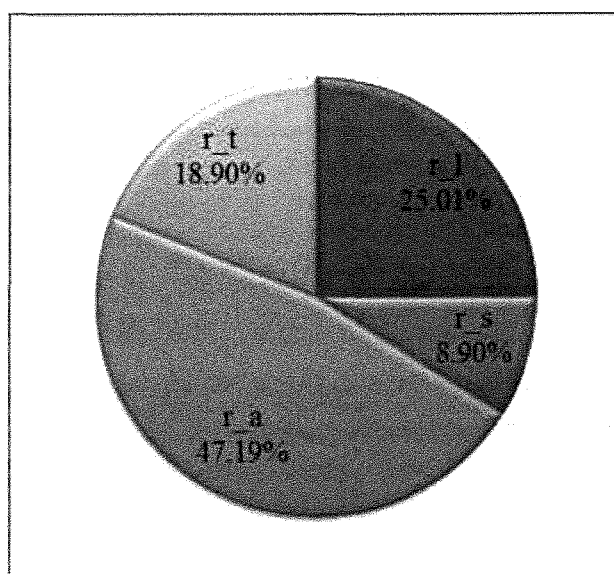
Table 4.44 lists the top 20 most frequent collocations with repetitions. The table shows that most of the words with high frequency of collocation with repetitions were function words and sentence fillers such as "en" and "er". The high frequent co-occurring content words with repetitions were all nouns, including "students", "Hong-Kong", "people" and "university" in the table. Specifically, the word most frequently associated with repetitions was the article "the", also with the highest frequency of occurrence at the position of L1 (first word on the left) of a repeated word. Fillers such as "en" and "er" often occurred at the position of L2 (second word on the left) of the repeated words. As far as the top 20 co-occurring words were concerned, function words tended to occur more often on the left of a repeated word and content words more often on the right.

Table 4.44. Wordsmith collocation list of top 20 surrounding words of repetitions

N	Word	Total	Total left	Total right	L5	L4	L3	L2	L1	R1	R2	R3	R4	R5
1	the	1572	882	690	136	162	166	164	254	134	155	146	126	129
2	en	1146	567	579	119	124	158	166	0	119	117	102	128	113
3	er	669	355	314	68	81	95	111	0	70	63	54	62	65
4	and	554	279	275	61	58	58	53	49	37	62	59	55	62
5	in	473	267	206	45	48	44	69	61	29	51	45	42	39
6	from	464	237	227	36	42	47	49	63	34	52	41	48	52
7	is	450	269	181	43	54	46	58	68	31	44	48	26	32
8	to	416	240	176	45	37	42	48	68	26	38	35	42	35
9	students	407	160	247	43	36	39	13	29	56	48	55	48	40
10	of	356	164	192	30	29	32	35	38	23	53	35	45	36
11	their	297	194	103	30	27	31	45	61	19	18	24	22	20
12	Hong-Kong	210	111	99	34	17	19	15	26	21	15	23	23	17
13	are	198	122	76	16	21	23	27	35	16	14	21	10	15
14	I	176	122	54	21	22	16	36	27	11	21	7	7	8
15	people	173	84	89	23	16	21	9	15	20	16	16	21	16
16	university	158	74	84	21	22	12	5	14	17	18	20	16	13
17	we	150	105	45	22	14	22	27	20	6	10	8	12	9
18	than	148	55	93	10	10	4	17	14	10	27	15	18	23
19	it	148	105	43	21	17	16	36	15	10	13	9	7	4
20	about	146	81	65	18	19	14	14	16	13	15	9	18	10

4.3.3.2 Truncated Segments

1) The patterns of truncated segments

Truncated segments occurred in 1,084 tokens in the learner database, taking up a percentage of 5.20%. As displayed in Figure 4.12, truncated segments were repeated from one to four times in learners' interpreting outputs. The greatest majority (86.72%) of the truncated segments was uttered once only, but there were four cases (0.55%) where the truncated segments were repeated up to four times.

Figure 4.12. Truncated segments by time of repetition in the learner database
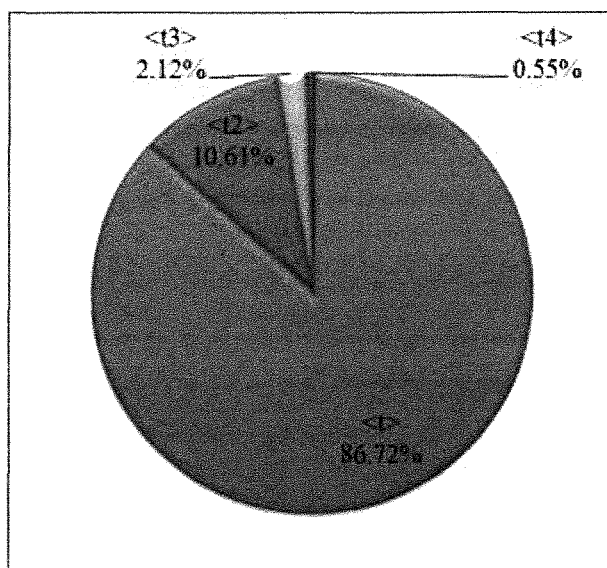
According to Figure 4.13, among the 1,080 occurrences of truncated segments, nearly three quarters of its total occurrence were completed, while a little more than a quarter of them remained uncompleted.

Figure 4.13. Features of truncated segments in the learner database
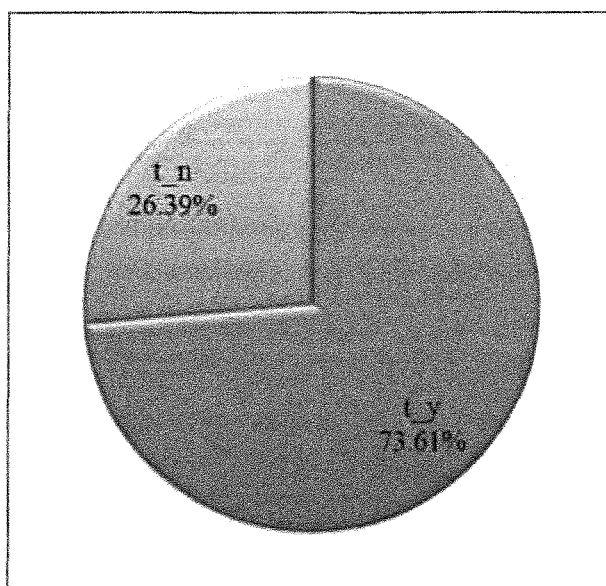
Figure 4.14 shows the types of truncated segments in the learner database. As outlined in the figure, 40.65% of the truncated segments occurred at the phonological level, 30.19% at the syntactical level and 29.17% at the lexical level.

Figure 4.14. Types of truncated segments in the learner database

Figure 4.15 shows the distribution of possible causes of truncated segments in learners' interpreting outputs. More than half of the truncated segments were caused by the intention of articulation, while about one third of them by that of lexical shift. Stalling and syntactical shift were the third and fourth causes, taking up 8.70% and 6.20% respectively.

Figure 4.15. Possible causes of truncated segments in the learner database
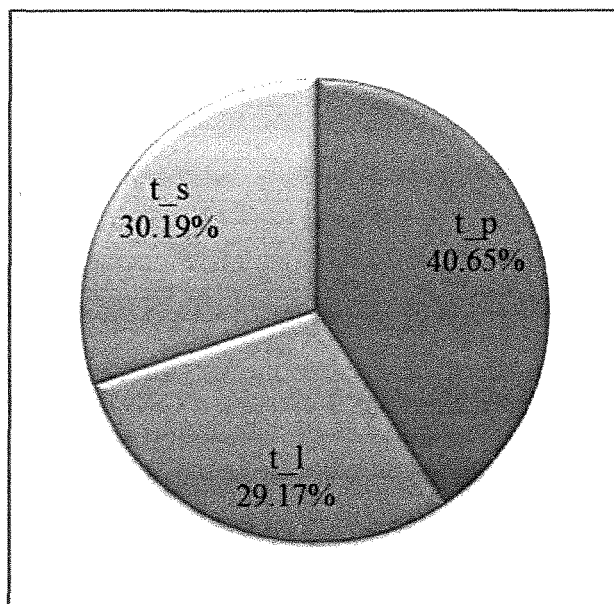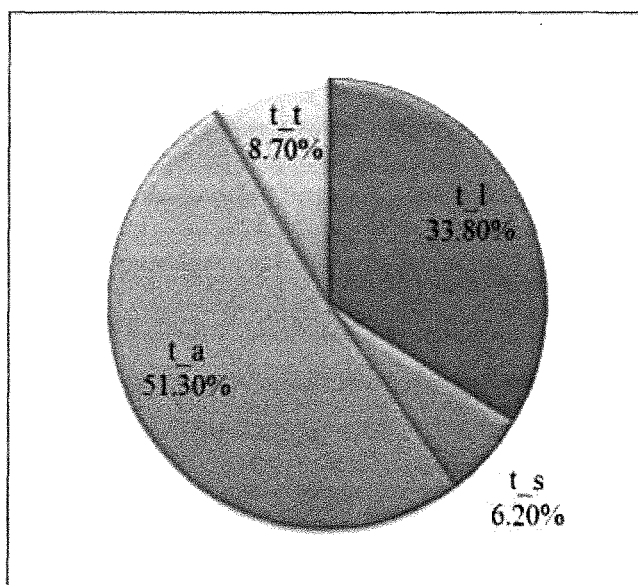

2) The collocations of truncated segments

Table 4.45 provides a list of the top 20 co-occurring words with truncated segments. Similar to repetitions, words most frequently surrounding truncated segments were overwhelmingly function words. Content words co-occurring with truncated segments included nouns such as "students", "Hong-Kong", "university", "people" and "China", as well as the numeral "twenty-thousand" and the adjective "Chinese". The most frequently co-occurring word with truncated segments was the article "the", happening most often at the position of L2. Fillers of "en" and "er" were the second and third most frequent collocations, most often occupying the position of L1 and R1. With a few exceptions such as "in", "about" and "we", most of the words in the list occurred more often at the right of the truncated segments.

Table 4.45. Wordsmith collocation list of top 20 surrounding words of truncated segments

N	Word	Total	Total left	Total right	L5	L4	L3	L2	L1	R1	R2	R3	R4	R5
1	the	835	442	393	100	95	86	147	14	77	66	79	80	91
2	en	792	399	393	91	85	110	113	0	104	54	79	87	69
3	er	417	177	240	46	38	30	63	0	82	28	43	39	48
4	and	292	133	159	24	34	35	39	1	24	27	40	41	27
5	in	261	142	119	27	20	32	40	23	21	23	25	22	28
6	students	236	76	160	25	26	15	10	0	17	47	41	29	26
7	from	203	101	102	16	30	31	24	0	7	25	27	25	18
8	of	194	86	108	23	12	28	22	1	14	24	28	22	20
9	is	175	62	113	10	15	24	12	1	16	28	20	24	25
10	Hong-Kong	171	59	112	9	17	13	20	0	31	24	20	18	19
11	to	166	80	86	17	19	13	26	5	11	16	20	19	20
12	university	126	53	73	11	16	17	8	1	6	29	13	14	11
13	are	116	49	67	9	10	14	16	0	12	13	19	8	15
14	their	114	55	59	14	5	12	24	0	19	12	7	10	11
15	people	114	42	72	12	11	7	11	1	6	18	19	12	17
16	about	86	61	25	13	14	20	14	0	3	3	5	6	8
17	twenty-thousand	80	22	58	8	3	2	9	0	18	20	8	6	6
18	Chinese	74	30	44	7	7	7	9	0	12	9	11	5	7
19	China	73	31	42	6	8	6	11	0	7	5	10	12	8
20	we	73	39	34	10	11	8	8	2	14	6	5	5	4

4.4 Summary

This chapter provides findings regarding learners' perceived problems and the evaluation of their actual problems. The interplay between learner's problem perceptions and learner variables in interpreting learning was investigated and their impact on learners' interpreting learning achievement was also examined. Findings of the corpus-based analysis of problems under-evaluated by learners were reported at the end of the chapter. The implications of these findings will be discussed in detail in Chapter 5.

Chapter 5 Discussion and Conclusions

This study aimed at examining the learning of interpreting from a problem analysis perspective. Students' problems in interpreting were investigated from the perspective of their own perceptions in comparison with the teacher's evaluation (conducted by the researcher in this case) and the corpus-based analysis of their actual interpreting performance. The interaction between students' problem perceptions and individual learner variables was explored. The contributing factors to students' interpreting achievement were also studied. A combination of data collection methods including questionnaires, interviews and elicitation tests was applied in the study. Both quantitative and qualitative approaches were employed in analyzing the research data.

This chapter will first summarize the findings of the study. The implications of the findings will be discussed subsequently. Limitations of the study will then be presented, followed by suggestions for future studies. The study's conclusions will be provided at the end of the chapter.

5.1 Discussion of Findings

5.1.1 Learners' Problems in Interpreting

The first research question was how students perceive their problems in interpreting, including their perceived occurrence of problems, their worry about their problems and their consideration of these problems' fatalness.

The quantitative findings of the questionnaire data indicated that the students most often perceived delivery-level problems in their interpreting performance, but they worried most about problems concerning the rendition of meaning in interpreting, which they also regarded to be the most fatal when assessing their interpreting performance. As to specific problems, students perceived "disfluency" as occurring most often in their interpreting performance, which was followed by "omission of information" and then "failure to produce corresponding words". Students, however, worried most about the problem of "omission of information", with "failure to produce corresponding words" and "disfluency" their second and third worries. The top three fatal problems as indicated by the students all belonged to the content level, including "incomprehensible

rendition", "omission of information" and "incorrect rendition of numbers and proper names". The problem of "failure to produce corresponding words" and that of "disfluency" were regarded by the students to be the most fatal at the language and presentation level, respectively.

The qualitative findings from the students' focus group interviews echoed the quantitative findings. The students regarded the rendition of information as the first priority in interpreting. In particular, the students regarded the problems of mistranslation, omission and addition as unacceptable in interpreting. Problems in rendering difficult words and numbers as well as those in coherence, apart from being possible triggers for mistranslation and omission, were also regarded as influential factors when judging interpreting performance. In addition to the rendition of information content, the students believed that advanced language quality is essential to a good interpreting performance. The ideal quality of language in interpreting was stated to be "native-like" or "clear, easy to understand and succinct". Language problems were often addressed in relation to the rendition of meaning. For example, the students mentioned the influence of inaccurate pronunciation on the comprehensibility of their interpreting outputs. They also stated the difficulty in using appropriate words in the target language during interpreting. Finally, the students considered delivery factors, especially fluency, to be related to interpreters' norm of invisibility. The students stated that the habitual use of fillers in the Chinese language could be a possible cause for their disflueny in interpreting into English. Students also noted that the tone of interpreting was influential in assessing interpreters' performance.

The results gained from the analysis of the teacher questionnaires and individual teacher interviews, provided as supplementary data in the study, indicated that learners' perceptions of problems were generally consistent with those of teachers, especially at the content level. However, there were some slight differences between learners' and teachers' perceptions of some specific problems in students' interpreting performance. As far as the questionnaire data were concerned, all of the teacher participants agreed that students most often encountered word-level language and content problems in interpreting, i.e., "failure to produce corresponding words" and "incorrect rendition of words", while three out of the four teachers considered the problems of "omission of

information" and "disfluency" to be constant in students' interpreting performance. Moreover, all four teachers agreed that "omission of information" was the most fatal problem in interpreting, while three teachers regarded "incomprehensible rendition" to be a fatal problem.

Findings from the individual teacher interviews indicated that, similar to the students, the teachers attached great importance to the rendition of content information in interpreting. Incomprehensibility in interpreting, along with mistranslation and omission, were regarded as intolerable problems in the assessment of students' interpreting performance. In addition, coherence was considered to be a contribution to a good interpreting performance. With the recognition of the students' language deficiencies, the teachers noted the impact of language failures on the successful rendition of meaning in the students' interpreting. In particular, the teachers commented on the possible impact on comprehensibility of students' inaccurate pronunciation or failure to produce corresponding words. Further, although the teachers demonstrated tolerance towards the students' delivery problems at the beginning stage, they noted that these problems would not be acceptable when students reach a more advanced level of training.

In sum, the findings of the current study suggest that interpreting learners, while perceived most often delivery problems, applied meaning-oriented criteria in their assessment of problems in interpreting performance.

The meaning orientation in learners' problem assessment echoed the findings in Pan and Yan (2012) and Yan et al. (2010), in which "incomprehensible rendition" was also found to be the most fatal by interpreting students in both mainland China and Hong Kong. While Lörscher (1992) indicated that the translation of language learners, compared to professional translators, tended to be primarily "sign-oriented" instead of being "sense-oriented"(p. 155), studies such as Yan et al. (2010), Pan and Yan (2012) and this one have found that interpreting students, also language learners at the same time, were sense-oriented when judging their performance in interpreting. The importance attached to the rendition of sense or content information in this study is in line with previous findings on quality assessment in interpreting. According to those findings, sense consistency between the source text and the target text was usually

ranked as the most significant parameter in assessing professional interpreting performance by both users and interpreters (e.g. Bühler, 1986; Kurz, 1989a, 1993, 1994, 2001; Marrone, 1993; Kopczynski, 1994a, 1994b; Moser, 1995; Chiaro & Nocella, 2004; Pöchhacker, 2005; Zwischenberger, 2010; Zwischenberger & Pöchhacker, 2010). Interestingly, the differentiation of problem criteria according to the setting of the interpreting, as mentioned by the learners in this study, was similar to that stated by professional interpreters in Zwischenberger and Pöchhacker (2010). Moreover, the apparent sense-orientation in students' self-assessment reflected the success of interpreting training in raising awareness, as fidelity to the source text is often weighted most heavily in classroom assessment schemes (e.g. C. Yang, 2005; Cai, 2007; Kim, 2009) and accreditation tests (e.g. Harris, 1975; AIIC, 2004b; Y. Qi, 2008; California Certified, 2010; GIIT, 2011).

Of the specific content problems assessed by students, the heaviest loadings on fatalness in interpreting were for incomprehensibility and the omission of information. Students' emphasis on accuracy and completeness of information was similar to findings in previous studies on interpreting quality. In Kopczynski (1994a), for example, the "rendition of detailed content" was regarded by conference participants as the most important factor (p. 93). Chario and Nocella (2004) found that conference interpreters perceived "consistency with original" and "completeness of information" as the top two most important linguistic criteria when judging interpreting quality (p. 287), which also held true in the current study concerning students' perceptions.

In fact, students' perceptions of these two most fatal problems in the current study reflect the most fundamental features of the activity of interpreting, i.e., "to communicate the speaker's meaning as accurately, faithfully, and completely as possible" (AIIC, 2004b, 4.1 Professional ethics, para. 9). That is to say, the task of interpreting belongs to a type of communication, and therefore the comprehensibility of the message becomes the interpreters' highest priority. However, the communication activity of interpreting should be based on the information provided by the source language speaker, and it is the interpreters' expertise that ensures the completeness of the information rendered into the target language. Pedagogically speaking, the understanding of these fundamentals from the beginning of training is not only favorable to students' self-

monitoring in interpreting learning but also helpful for students to efficiently move into the community of interpreting practice at a more advanced stage.

In addition to content consistency, the students also attached great importance to the parameters including the order of information and coherence in their assessment of interpreting problems. This result reinforces the findings in Kurz (2001), i.e., both interpreters and conference delegates considered "logical cohesion" to be the second significant criterion in assessing interpreting quality, following the parameter of "sense consistency" (p. 406) (also see Bühler, 1986; Kurz, 1989a, 1993, 1994, 2001; Moser, 1995; Chiaro & Nocella, 2004; Pöchhacker, 2005). Such a finding also indicates that it is important to cultivate text analysis skills of interpreting students, an area that has been under-represented in many interpreting courses in the past (see Clifford, 2001; M. Kim, 2009; Peng, 2009). Students, when equipped with advanced text anlaysis skills and with familiarity with the text patterns of different genres, may not only be more efficient in understanding the source text (see Gile, 2009) but also more effective in producing coherent and logical renditions according to the requirements of cerntain genres and thus better achieve the communication purpose of interpreting. Moreover, as students in the study mentioned having great difficulty in mastering appropriate note-taking skills, the incorporation of textual analysis exercises in interpreting training may help learners identify the underlying discourse link when listening to the source text.

The fact that the students in this study paid special attention to the rendition of specific words such as numbers and proper nouns was consistent with many previous studies in which the precision in terminology was strengthened, a parameter in quality usually placed alongside logicalness and cohesion (see Bühler, 1986; Kurz, 1989a, 1993, 1994, 2001; Chiaro & Nocella, 2004; cf. Kopczynski, 1994a, p. 93, in which "terminological precision", following "rendition of detailed content", was ranked as the second parameter in the quality assessment by conference participants). Students' awareness of the importance of the accurate rendition of numbers and proper names also helps to justify the scoring weight placed on this parameter in the accreditation tests such as CILISAT (see J. Lee, 2009). Therefore, it is worthwhile for both interpreting teachers and students to place special emphasis on number training and terminology memorization exercises.

In students' criteria for problems in interpreting, delivery problems were regarded as secondary to meaning-related problems, and language problems were considered the least fatal. Such a distribution was the same as the interpreting classroom evaluation scheme put forward in C. Yang (2005: 237-238), in which fidelity weighted 50%, delivery 30% and language 20%. The problematic but secondary role of delivery problems, especially the problem of disfluency, not only accorded with previous findings on the importance of delivery as a parameter in perceptions of interpreting quality by interpreters and interpreting uses (e.g. Bühler, 1986; Kurz, 1989a, 1993, 1994, 2001; Chiaro & Nocella, 2004; Zwischenberger & Pöchhacker, 2010) but also confirmed the significance of recent investigations regarding this particular parameter (e.g. Mead, 2000; Tissi, 2000; Petite, 2005; Pradas Macías, 2006; Rennert, 2010).

Of students' reported interpreting problems, delivery problems superceded meaning and language problems. The problem of fluency was listed with the highest frequency in students' interpreting performance. This finding differs from the results in Pan and Yan (2012) and Yan et al. (2010). Disfluency, although ranked second (following the language problem of "failure to produce corresponding words") in Pan and Yan (2012) and third in Yan et al. (2010) (following "omission of information" and "failure to produce corresponding words), was considered to be the greatest problem at the delivery level in both studies. The high frequency of reported delivery problems in this study shows deviation from previous studies on students' self-evaluations in interpreting, where presentation problems, compared to problems in the rendition of meaning, were seldom addressed (cf. Bartlomiejczyk, 2007). This result, however, is not difficult to interpret. The qualitative findings of the current study suggest that learners' disfluency was usually caused by their lack of relevant terminology in the target language or nervousness in performing the task of interpreting, and it could also result in the problem of incoherence at the meaning level. Given the fact that problems at the three levels were interrelated, the reported high frequency of disfluency in this study should not be treated in isolation. Rather, it should be viewed in the dynamic interaction with problems at other levels and under the influence of relevant learner variables (cf. delivery deteriorations caused by problems in processing capacity in Gile, 1995a, 2009). In addition, the prevalence of disfluency problems accorded with findings in Ficchi

(1999), in which analysis of students' performance over six months indicated that pauses remained the greatest problem in their consecutive interpreting. Further, as noted in Bartlomiejczyk (2007), problems at the delivery level, if identified by the learners themselves, may be more easily translated into performance enhancement than problems identified at the meaning or language levels. Therefore, the findings concerning the prevalence of delivery problems reported by students in the current study suggest that the students have great potential to enhance their subsequent performance. These findings also indicate that presentation or speaking drills that help to enhance students' fluency either in monolanguage speaking (both A and B language) or in interpreting should be included in interpreting training programs at the tertiary level.

Apart from disfluency, students in this study also reported a high frequency of the omission of information in their interpreting performance in this study. Qualitative findings from the student interviews indicated the possible causes for omission, including difficulties encountered in source text comprehension, which were mostly triggered by a failure to produce corresponding words (cf. content deteriorations caused by problems in processing capacity in Gile, 1995a, 2009). These findings might suggest new perspectives on studies of the strategic use of omission by professional interpreters (e.g. Napier, 2004; Pym, 2008; Y. Wang, 2008) and studies on simplification, one of the translation universals (see Baker, 1993; House, 2008). It seems that students, while knowing that the accurate and complete rendition of content information is the top priority in interpreting, were forced to apply the expedient measure of omission due to their deficiency either in language comprehension or production. This result indicates that in interpreting teaching at the tertiary level, it is important both to help students enhance their language competence and to teach students relevant comprehension, preventive and reformulation tactics (see Gile, 2009). Relevant training on inference and anticipation informed by discourse studies may be another possible pedagogical measure (see Chernov, 2004).

Finally, the problem of "failure to produce corresponding words", which was also a frequently occurring problem found in Pan and Yan (2012) and Yan et al. (2010), was reported to be the greatest problem at the language level by students in this study. According to the qualitative findings of the interview data, this problem was found to be

the trigger for content and delivery deteriorations of students' interpreting performance (cf. Gile, 1995a, 2009). The restraints of this word-level language problem reported by students provided some evidence that students' interpreting output was form-oriented at this stage (see Lörscher, 1992). In addition, the difficulty in producing corresponding words was found to be related to students' lack of vocabulary, especially in English. As stated in Pan and Yan (2012), students' deficiency in vocabulary was their greatest concern in interpreting and was regarded as the cause for many problems in their interpreting performance. Previous studies have noted the necessity of addressing the language needs of interpreting learners (e.g. Shaw et al., 2004; Pan & Yan, 2012). The current study offered added evidence of interpreting learners' language deficiency at the tertiary level. Thus, it seems necessary to provide interpreting-related language enhancement resources and facilities such as self-study centers and materials for college interpreting students to help them make a smooth and successful transition from language learners to interpreting learners (see Shaw et al., 2004). The relationship between language competence and the learning of interpreting will be discussed in more detail in the interpretation of the findings regarding the second research question.

5.1.2 Learner Variables and Problem Perceptions

In response to the second research question, the interrelationship between learner variables (i.e., socio-biographic variables, language learning variables and interpreting learning variables) and problem perceptions was explored. Findings regarding this research question are summarized in Figure 5.1.

Figure 5.1. Summary of findings regarding the relationship between learner variables and problem perceptions
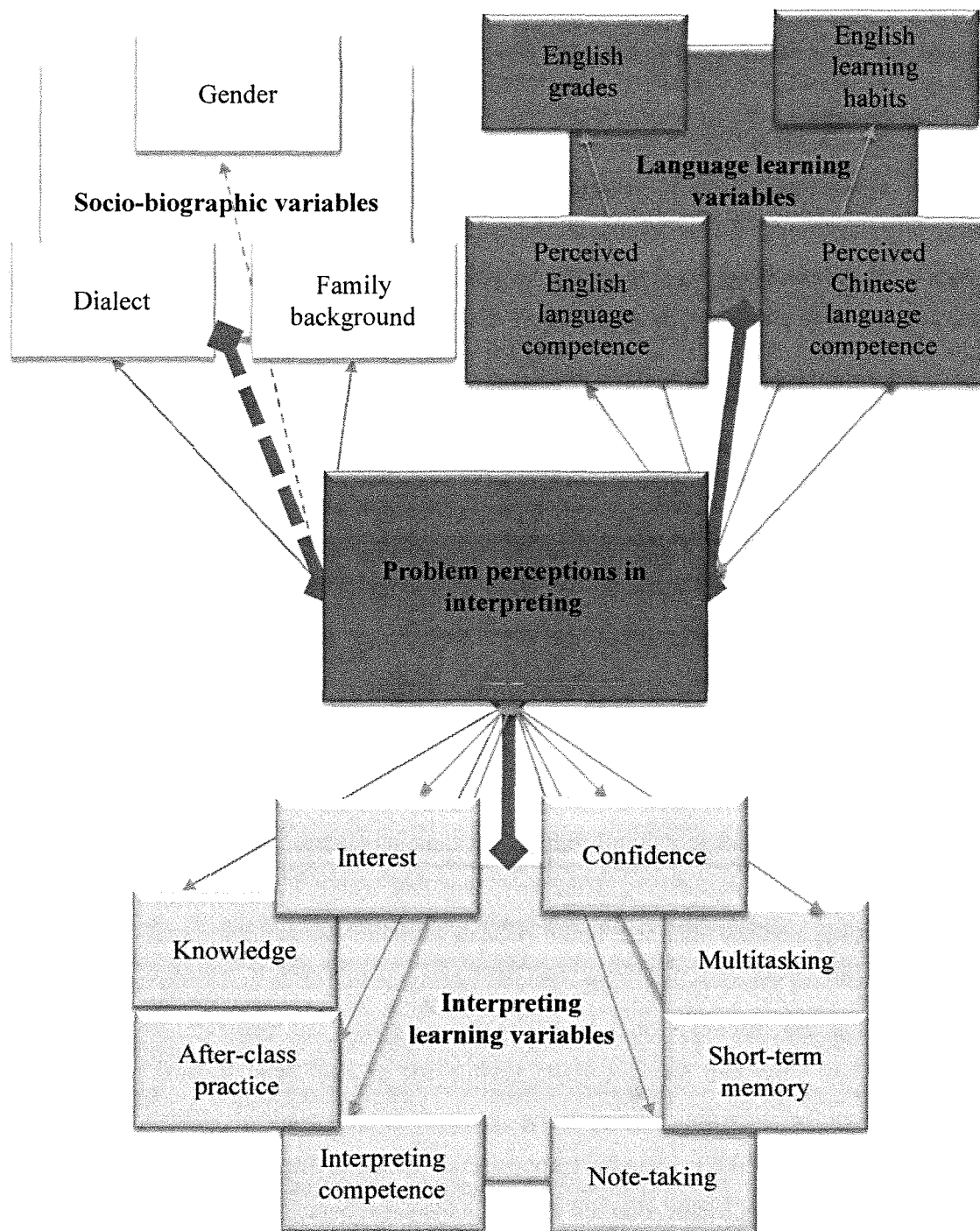
Note: The bidirectional arrows represent the correlational relationships identified.

5.1.2.1 Socio-biographic Variables and Problem Perceptions

Socio-biographic variables investigated in this study included gender, dialect and family background. Although no significant difference was found between male and female students in their problem perceptions, female students were discovered to score significantly higher than male students in interpreting. The non-comparableness of male and female students on their problem perceptions could be contributed to the large statistical difference between these two groups in proportion (295 females vs. 22 males in this study) that is representative of the profession's feminization trend, a finding that accords with previous studies (e.g. Kurz, 1989b, 1996b; Schweda Nicholson, 2005; Yan et al., 2010; Pan & Yan, 2012). In addition to the unequal distribution between males and females in the profession, the female-domination in interpreting classrooms is also worth noting (see Kurz, 1996b; Schweda Nicholson, 2005; Yan et al., 2010; Pan & Yan, 2012). The result that female students outperformed male students in interpreting, consistent with that of Yan et al. (2010) for interpreting students in Hong Kong, further confirms findings from previous studies regarding gender differences in learning interpreting (e.g. Kurz, 1989b, Yan et al., 2010; Pan & Yan, 2012), a catalyst for the feminization of the profession.

The review by Kurz (1989b) notes that on the one hand, females were usually better than males in language communication; on the other hand, the perceptions of their social role, i.e., as the carrier of their language, differed greatly. Previous studies have indicated the superiority of female students in learning English or Putonghua (e.g. Yan, 1998; Yan & Detaramani, 2008). Pan and Yan (2012), although did not examine differences in interpreting achievement by gender, found that male students encountered more language problems and showed greater concern regarding delivery problems than female students. Echoing the second point raised in Kurz (1989b), the qualitative findings from student interviews in the current study indicate that male and female students might differ in their way of thinking, which might indirectly influence their performance in interpreting. As stated in Schweda Nicholson (2005) and Yan et al. (2010), there may be complicated reasons underlying the unbalanced gender distribution in the profession and classrooms of interpreting. The current study, nevertheless, provided added empirical evidence that male and female students differed in their

learning of interpreting, the causes for and impact of which warrant further exploration. At this stage, it is worth mentioning that certain gender differences in language communication and interpreting learning are noteworthy and may be utilized in the design of relevant classroom activities.

A quantitative analysis of the questionnaire data in the current study indicated that students whose first language is Putonghua reported significantly fewer problems in the rendition of numbers and proper names or in the completeness of information than those whose first language is a dialect. They also worried less about the problem of cohesion. The smaller number of problems reported or worried about by students with Putonghua as a first language may be attributed to the fact that they had a better understanding of the source language if it was Putonghua. In addition, qualitative findings from the interviews indicated that the speaking of a dialect could influence students' pronunciation in their interpreting output. Apart from the negative role played by dialect in interpreting, qualitative findings from the teacher interviews indicated that students with a dialect as their first language may have better language transfer ability. Although the problem of pronunciation was regarded as marginal in previous studies (e.g. Bühler, 1986; Kurz, 1989a, 1993, 1994, 2001; Chiaro & Nocella, 2004), it seems that the particular influence of dialect speaking in Putonghua-English interpreting merits further analysis.

Despite the use of Putonghua as the standard language in China, a large population of the country was raised in a dialect-speaking environment (in this study, for example, 202, i.e., 63.1% of the student participants reported that their first language is a dialect rather than Putonghua). The differences between various dialects and Putonghua may be comparable to those between different languages (see Kurpaska, 2010). Therefore, in interpreter training in China, it should not be assumed that learners will not experience any difficulty in understanding and pronouncing Putonghua, presumably their A language. Pronunciation drills in both the A language and the B language should be provided. However, the speaking of another dialect or dialects may be built upon in the training of language-transfer skills, the core of translation and interpreting competence (see the minimalist approach proposed in Pym, 2003). Learners can be asked to interpret between Putonghua and their dialects prior to the interpretation between English and

Putonghua in a classroom exercise. This exercise might help the students understand the fundamentals of interpreting, i.e., the content should be the horse and the form is the cart, and also provide a learning experience with laddered difficulty levels. Moreover, interpreting between a dialect and Putonghua or even between different dialects is a viable profession for students when they graduate (cf. interpreting between Putonghua and Cantonese in Hong Kong). Therefore, relevant trainings in this aspect might enhance students' employment profile and possibilities.

Apart from gender and dialect, this study suggests that family background may exert a latent influence on students' learning of interpreting, but it does not play a dominant role. Students whose fathers worked in different fields reported distinct levels of problems concerning the completeness of information, and they ranked the seriousness of the problem of information order differently. Furthermore, the parents' English levels were found to be negatively correlated with students' reported occurrence and concern about many language- and content-level problems in interpreting (cf. Yan et al., 2010; Pan & Yan, 2012). According to the students, the parents had an impact on their knowledge exposure, their learning conditions and even their character formation. However, as noted by the teachers, the influence of students' family background on their learning of interpreting was latent rather than apparent. As far as the qualitative findings were concerned, apart from their working areas and English competence, the parents' attitudes towards the students' education could be another function in students' learning of interpreting.

Family background is a complicated matter that belongs to the area of Socioeconomic Status (SES). According to the American Psychological Association (APA) (2007), SES primarily consists of three dimensions, i.e., education, income and occupation. Socioeconomic factors are regarded as "fundamental determinants of human functioning across the life span, including development, well-being, and physical and mental health" and they are "all primary concerns for psychological research, practice, education, policy, and advocacy" (ibid, p. 1). Research on SES has confirmed the link between students' low SES family background and slow academic achievement; it has also provided evidence for the need of favorable education policies and funding in low SES areas (ibid). Likewise, the current study's findings suggest that family background

may influence students' learning of interpreting as far as educational resources and conditions are concerned. Therefore, it is necessary for policy-makers to take the regional socioeconomic background into consideration when designing interpreter training programs.

In sum, the findings of the current study suggest that socio-biographic variables such as gender, dialect and family background form part of students' learning mechanism in interpreting classrooms. Although these factors were not decisive in students' learning achievement, the latent influence exerted by them should be noted by both program designers and classroom teachers. A thorough examination and evaluation of these factors may help policy-makers in designing interpreting programs suitable to regional demand and produce greater economic returns at the macro-level while being useful to teachers in developing efficient teaching strategies in interpreting classrooms at the micro-level.

5.1.2.2 Language Learning Variables and Problem Perceptions

Students' language competence (perceived and actual) and their contact with and use of the language outside of class were examined in relation to their problem perceptions. Students' language competence was found to be related to the learning of interpreting in previous studies (see B. Wang, 2007; Malkiel, 2008; Yan et al., 2010; Pan & Yan, 2012). In the current study, students' language competence, both perceived and actual, was found to be inversely related to most of their perceived problems in interpreting.

First, students' language scores were found to be negatively correlated with many of their reported problems, worries and assessment of the fatalness of certain problems. In particular, students' English score on the CNCEE was found to be negatively related to many linguistic and content problems in interpreting as well as the problem of fluency. The CNCEE, a national examination, best reflects students' competence and aptitudes in related subjects upon their entrance to college (cf. Yan et al., 2010; Pan & Yan, 2012). Therefore, the students' English score on the examination may best reflect their comprehensive English competence at the time of their entrance to college, which is relevant to their later interpreting training. In addition to the CNCEE English score,

students' most recent grades in the course of Intensive and Extensive English Reading were found to be significantly correlated with their perceived grammar problems, their most recent grade in English Speaking correlated primarily with perceived problems of pronunciation and their most recent grade in English Listening correlated with perceived problems in the rendition of content information. These findings enriched the positive correlation found in Malkiel (2008) between achievement scores in the second language and interpreting.

Second, students' perceived English ability in general was found to be negatively correlated with their reported problems in all categories as well as their concerns about these problems. Their perceived English abilities in aspects of listening, speaking, reading, writing, pronunciation, vocabulary and grammar were found to be inversely related to most of their perceived problems and concerns in interpreting. Moreover, students' perceived English abilities in different aspects were found to be associated with their consideration of fatalness concerning problems of interpreting in corresponding aspects. Qualitative findings from the interview data provided ample evidence concerning the importance of good listening and speaking skills in addition to reading widely and accumulating a large vocabulary in the learning of interpreting (cf. Taylor, 1993). These findings confirmed the negative relationship between students' self-perceived English ability and perceived problems in Pan and Yan (2012) and the positive correlation found between students' self-perceived English ability and interpreting scores in Yan et al. (2010). In addition, this study's findings provided more dimensions for understanding the interplay between self-perceived language abilities and the learning of interpreting by including the correlational analysis between English language ability in specific aspects and students' problem perceptions. Moreover, the current study indicated that learners' self-perceived language ability, compared to their real language scores, may be more helpful in studies concerning learning-related matters (see Yan & Horwitz, 2008; Yan et al., 2010).

Third, students' self-perceived Chinese abilities were found to be negatively associated with a number of problem perceptions at different levels in interpreting, especially inaccurate pronunciation at the linguistic level, comprehensibility and order of information at the content level and the naturalness of tone at the delivery level.

Qualitative findings from the interview data confirmed the relationship between Chinese language competence and the learning of interpreting. These results were in line with the correlation found between students' achievement score in their first language and their scores in their translation and interpreting courses (see Campbell, 1998; Waddington, 2001; Malkiel, 2008). These findings also suggested additional dimensions for the understanding of the relationship between first language ability and the learning of interpreting (cf. Yan et al., 2010; Pan & Yan, 2012).

Furthermore, students in the study seem to confuse language learning with the learning of interpreting. A majority of the students (47.3%) of the students attended the interpreting course with the purpose of enhancing their English proficiency. Such confusion was also found in Pan and Yan (2012). This confusion reflects the importance of language competence as one subcomponent of interpreting competence (cf. Longley, 1989; Brisau et al. 1994; B. Wang, 2007; Gile, 2009), whereas it also suggests the need to address students' language needs in the learning of interpreting (see Shaw et al., 2004; Bao, 2008; Pan & Yan, 2012).

Apart from language competence, students' habits related to language learning were also found to be related to their problem perceptions at different levels. Their contact with native English speakers was found to be negatively associated with their reported problems of incomplete sentences, information omission, misplaced order, lack of cohesion and fluency. This contact was also found to relate to students' judgment of the fatalness of incorrect rendition of numbers and proper names. Students' after-class practice of their second language (i.e., English), but not their first language, was found to be negatively related to their perceived problems in grammar, sentence completion, completeness of information, comprehensibility in rendition, order and cohesion in interpreting. In addition, it was found to be associated with the students' assessment of the fatalness of these problems. While in Yan et al. (2010), students' habitual use of and contact with the second language was found to be associated with their self-perceived language abilities and therefore indirectly influenced their interpreting achievement, the current study provides evidence that a direct link exists between learners' habitual use of and contact with the English language and their learning of interpreting.

In sum, students' language competence and language use were found in this study to be closely related to their problem perceptions in learning interpreting. These findings highlight the importance of a strong language foundation (for both the A and B languages) in interpreter training. The study also provides empirical evidence that the habitual use of language (especially students' B language) in daily communication may be a useful exercise for interpreting students. Many interpreting programs require and offer opportunities for students to stay for a period of time in a country that speaks their B language. This study's findings indicate that this measure is useful in interpreter training only when the frequency of the B language use and contact reaches a sufficient level.

5.1.2.3 Interpreting Learning Variables and Problem Perceptions

Variables in the learning of interpreting, including students' psycho-affective and cognitive variables and their after-class practice were examined in relation to their problem perceptions in this study.

First, higher levels of interest and confidence in interpreting were found to be constructive to the learning of the skill (cf. Pan & Yan, 2012). Students' interest in interpreting was found to be related to their problem perceptions primarily at the meaning and delivery levels. The higher students' interest in interpreting, the fewer problems they reported concerning the comprehensibility of their interpreting output. Additionally, students' interest was found to be positively related to their consideration of fatalness concerning incomprehensibility, misplaced order, fluency and self-repair in interpreting, indicating higher criteria for the content and delivery. Given the glamour associated with the interpreter position in China (Setton, 2009), students generally have a certain interest in studying interpreting (in this study, M=3.48 (on a five-point Likert scale), SD=.719). However, according to the interview findings in this study, students' interest in the subject appears to be negatively affected by the difficulty of the job, which consequently causes them to have less confidence in performing the task.

In this study, students' confidence in interpreting was found to be associated with every type of their reported problems, in addition to their concern about inaccurate pronunciation. The interview findings suggest that the students considered the learning

of interpreting to be difficult and challenging. The students believed that their lack of confidence in the skill, attributable to their perceived deficiency in the English language, could cause extreme nervousness while interpreting. Other contributors to students' nervousness in interpreting included their perceived or actual failure in comprehension or the pressure of classroom demonstrations. This negative feeling usually resulted in loss of information in the students' interpreting performance. The students found that they usually felt nervous at the beginning or before the task of interpreting but were able to control the effects of nervousness after several seconds of adaptation.

This study's findings accord with the statement by Shaw and Hughes (2006) that "the desire to learn and motivation and confidence are no doubt interrelated" and "these attributes appear to be...keystones for student progress" (p. 213). The relationship identified between confidence and problem perceptions in all aspects of interpreting echoed previous findings that this personality attribute may play a crucial role in the learning of the skill (see Shaw et al., 2004; Shaw & Hughes, 2006). Furthermore, the qualitative findings of the interview data indicated that confidence was related to the students' nervousness, which was usually transient but worth noting in interpreting (cf. Chiang, 2010, in which students' foreign language anxiety was found to be negatively correlated with their achievement in learning interpreting). This finding suggests that frequent interpreting exercises may help students become habitually at ease with the task, which in turn may result in fewer problems with performing the task.

The students' ability to manage multiple tasks was found to be related to their reported problems and concerns of each type. Multitasking was also negatively correlated with the students' consideration of fatalness concerning language problems at the lexical and grammatical level, the problems of omission of information and unnatural tone. Students' short-term memory was found to be related to their worries about problems at the language, meaning and delivery levels but was associated with their reported problems only at the language and meaning level. A correlation was also identified between students' short-term memory and their consideration of fatalness concerning coherence problems. Students' note-taking ability, however, was found to be inversely related to their reported problems of incomplete sentences and incomprehensible rendition, in addition to their concerns about the incorrect rendition of

words. The qualitative findings of the interview data, in addition to providing supporting evidence for the relevance of multitasking, memory and note-taking skills for interpreting performance, suggest that responsiveness, which may be enhanced by better preparation work, is also an important element.

As discovered by Kurz (1996b), interpreting, compared to written translation, is primarily "action oriented" (p. 17), and therefore cognitive abilities related to the action are crucial indicators in identifying potential candidates. The findings of the current study thus provide additional evidence of the importance of many cognitive factors for interpreting aptitudes (see Moser-Mercer, 1985, 2000/01; Longley, 1989; Lambert, 1991; Brisau et al., 1994; Macnamara, Moore, Kegl, & Conway, 2011; Russo, 2011).

Moreover, students' world knowledge was discovered in this study to relate to their interpreting performance. Additional preparation work on the topic, especially the accumulation of relevant vocabulary, was emphasized by both students and teachers. This result again confirms the important role of background information, another parameter often addressed in interpreting research (see Longley, 1989; Brisau et al., 1994; Díaz Galaz, 2011; Russo, 2011). Therefore, in interpreter training programs, it is necessary to establish a large repertoire of elective courses to introduce students to various disciplines and expand their knowledge of the world. In addition, an introduction to preparing for interpreting tasks from a process-oriented perspective is necessary at the beginning of training programs.

In the current study, the students' after-class practice of interpreting skills was found to relate to their fluency in interpreting (cf. Shaw et al., 2004). The students' knowledge of interpreting was found to be associated with the comprehensibility and logical order arrangement of their interpreting outputs. Nevertheless, both students and teachers admitted that while the students recognized that the time for in-class practice was limited, they felt a lack of motivation to practice interpreting outside of class, a fact that may be attributable to the complexity and difficulty of the task (cf. Shaw & Hughes, 2006, in which students reported little communication with instructors outside of class). Therefore, it seems essential to provide relevant stimulus in interpreting courses or interpreter training programs to encourage students' after-class practice of the skill.

As far as students' interpreting competence was concerned, their interpreting achievement score was found to be related to their reported problems of incomplete sentences and incomprehensibility. Students' perceived interpreting competence, however, was found to be inversely related to their reported problems and concerns in every aspect except for the problem of overtranslation. The higher the grade that the students received from their interpreting courses, the greater the importance they attached to the parameter of comprehensibility in interpreting. The higher that the students perceived their interpreting competence to be, the less fatal they considered the problems of omission of information and fluency in interpreting to be. The correlation found between students' self-perceived interpreting competence and their reported problems in almost every respect reflect the important role of problem analysis in the understanding of interpreting learning. In addition, these findings reinforced previous studies' arguments that students' perceptions may be even more reflective of their learning than the actual scores (see Yan & Detaramani, 2008; Yan et al., 2010; Pan & Yan, 2012). The current study thus indicates the significance of problem analysis and the cultivation of an accurate self-image in interpreter training.

5.1.3 Learner Variables, Perceived Problems and Interpreting Achievement

The study's third research question concerned the predictive factors of students' achievement in learning interpreting. Of the variables investigated, the students' most recent grade in English Listening, their self-perceived Chinese writing ability, their most recent grade in Intensive English Reading, their assessment of the fatalness of incomprehensible rendition, their interest in finance and their reported problem of unnatural tone were identified as significant contributors to their interpreting achievement (see Figure 5.2).

Figure 5.2. The predictive model of students' interpreting achievement
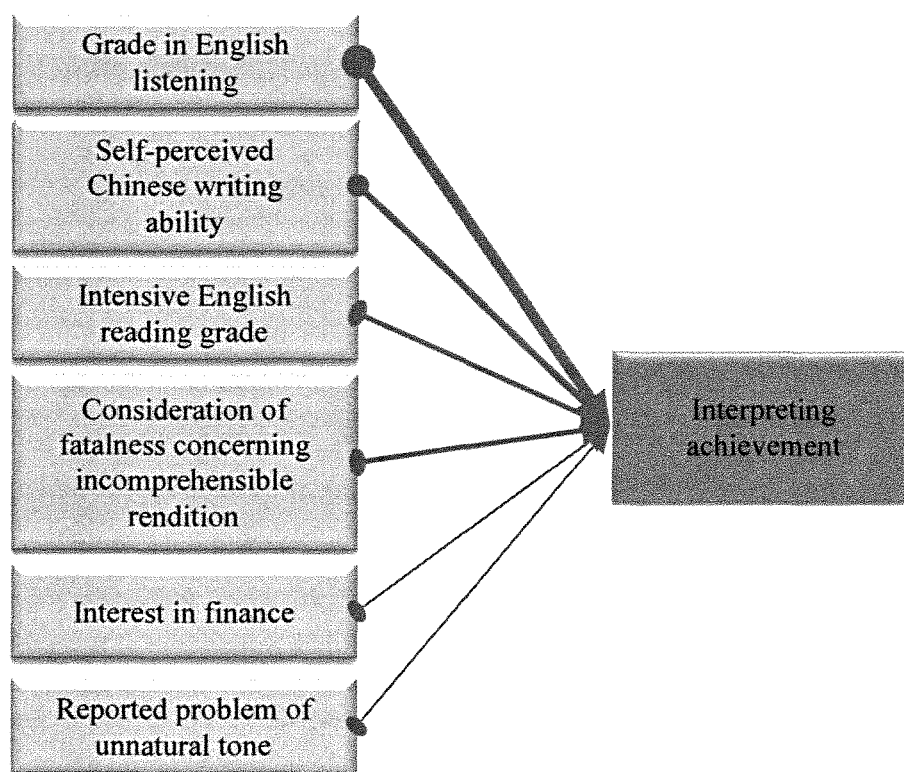
The students' most recent grade in English Listening was found to be the greatest predictor in the model, thereby indicating the importance of English listening skills for interpreting (cf. Yan et al., 2010). The second predictor, students' self-perceived Chinese writing ability, was also found to be a significant predicting factor in Yan et al. (2010). This finding suggests that students' Chinese language ability, especially the sub-skill of Chinese writing, has a significant influence on students' interpreting performance. Chinese writing is regarded in the Chinese tradition as a reflection of a person's comprehensive abilities, including language competence, scope of knowledge and logical thinking, resulting in its use as the imperial examination for the selection of administrative officials for over 1,300 years and its persistence as an important component in modern selection examinations for civil service (see Jin, 1990; Ebrey, 2010). Thus, this study's findings indicate that a good foundation in Chinese writing skills may help prepare students for success in learning interpreting as far as language, knowledge and cognition are concerned (cf. Campbell, 1998; Waddington, 2001;

Malkiel, 2008). The students' most recent grade in Intensive English Reading was the third factor ranked in the model. This course, which is compulsory for every college student, often indicates students' comprehensive English abilities and knowledge of English-speaking cultures. This result therefore indicates that apart from the students' English listening abilities, the students' general abilities and knowledge about their B language are additional contributors to their success in learning interpreting (cf. Yan et al., 2010).

Two of students' problem perceptions were found to be predictive of their interpreting achievement: their assessment of the fatalness of incomprehensible rendition and their reported problem of unnatural tone. The students in this study considered the problem of incomprehensibility to be the most fatal in interpreting. As a serious failure in the rendition of meaning, this problem was also considered to be related to language problems such as inaccurate pronunciation and delivery problems. Therefore, it is reasonable that students' attention to this specific problem is decisive in their interpreting achievement (cf. previous studies on interpreting quality perceptions, e.g. Bühler, 1986; Kurz, 1989a, 1993, 1994, 2001; Marrone, 1993; Kopczynski, 1994a, 1994b; Moser, 1995; Chiaro & Nocella, 2004; Pöchhacker, 2005). The tone of interpreting, although considered to be marginal by professional interpreters' in previous research on interpreting quality (cf. Kurz, 2001; Chiaro & Nocella, 2004), may reflect students' confidence in performing the task, which in turn was found to be a primary factor influencing students' learning of the skill (see Shaw et al., 2004; Shaw & Hughes, 2006).

Finally, the students' interest in finance was discovered to be the fifth predictor for their achievement in interpreting. This finding results from the fact that the majority of the students (95.6%) in the study were students of the English language, under the umbrella of humanities and liberal arts; therefore, their exposure to knowledge concerning literature and world events did not vary much. With China's opening to the world, interpreting in the sector of business and finance is increasing, a topic that has received extensive coverage in textbooks and test designs (see C. Lin, 2004). Therefore, in the Chinese context of interpreting learning, the significance of students' interest in finance is not surprising.

In conclusion, the predictive model of interpreting achievement identified in this study highlights the importance of language competence, world knowledge and problem perceptions in interpreter training. The model indicates that students' competence in both the A and B languages is key to their success in learning interpreting. In addition, a proper understanding of the criteria for interpreting and an accurate self-image in performing the task may help them overcome their difficulties in learning the task. An extensive base of knowledge, and especially familiarity with the field of finance, may be useful for learning interpreting in China.

5.1.4 Learners' Interpreting Problems: Self-Perceptions vs. Teacher Evaluation

In response to the fourth research question, students' self-perceived problems and the evaluation of their actual problems in the same categories were compared using a series of Paired Sample Tests. The test results revealed students' general over-evaluation of the majority of their problems, indicating their low self-assessment of their own interpreting performance. These findings were comparable to the predominately negative assessment of interpreting students when interpreting from English into Polish, as found by Bartlomiejczyk (2007). The findings also supplemented those in Campbell (1998), in which the majority of students (Arabic and Spanish ones) tended to overestimate their abilities in translation, but the Italian students underestimated their translation abilities. As put forward in Kiraly (1995), "the translator's self-concept is a requisite for the translator's ability to project a translation expectation" (p. 100). The findings in the current study, therefore, suggest that the students had high expectations for their interpreting achievement in general, which contributed to their low confidence in performing the task and their limited motivation to become interpreters or to practice outside of class. These findings also indicate that greater support is needed from teachers in interpreting classrooms to cultivate learners' correct self-image, which is instrumental for their learning of the skill.

As noted in Gile (1995b), students' perceptions of their interpreting performance can be complex. The study by Y. Lee (2011) also found that students' self-assessment, although similar to the teachers' grades, featured different content. Despite the students' general overestimation of the majority of their problems, their perceptions regarding

their grammar, comprehensibility and tone were not significantly different from the evaluation of their actual performance. These findings indicate that the students' self-perceptions were relatively accurate in these three aspects.

The study also found that the students underestimated their problems with inaccurate pronunciation and repetition and self-correction. The study by Campbell (1998), although it concerns the evaluation of written translation, found that students' lower target language ability was related to their overestimation in translation. Moreover, Campbell stated that an accurate self-assessment should form "a facet of translation competence" (ibid, 126). Therefore, the overestimated aspects are what pedagogical efforts should focus on (cf. Gile, 1995b; Y. Lee, 2011).

5.1.5. Learners' Interpreting Problems: Corpus Findings

Recognizing the pedagogical importance of investigating the problems that the students underestimated, the final research question sought to examine these problems in particular (cf. Bowker, 2001; Lindquist, 2005). As discussed in the previous sections, the problems that the students underevaluated included inaccurate pronunciation and repetition and self-correction.

The basic statistics in the student database of interpreting outputs reveal that students' interpreted texts had a lower type/token ratio on average than the reference target text. The average mean word length of students' interpreted texts was shorter, whereas their average sentence output included more words than the reference target text. These statistics indicate that the students used a simpler language than did the reference target text. Words such as "their", "are" and "for" were found to be keywords in the learner database.

Findings concerning mispronunciations (influencing 3.45% of the tokens in the database, with the sole inclusion of segmental errors; see Celce-Murcia et al., 1996) suggest that the students most often encountered consonant problems in their interpreting performance. Substitutions of consonants were the most common problem (39.94%) (cf. Beghoul, 2007). The substitution of vowels also represented a substantial proportion of the database (32.01%). A closer look at the mispronounced consonants indicates that students often encountered problems in pronouncing consonants such as

"l", "th" and "r". While "th (/θ/ or /ð/)", a non-existing dental consonant in the Chinese pronunciation system (see W. Wu & Jiang, 2008), was easily accounted for, students' difficulty in correctly pronouncing "l" or "r" may be attributed to the fact that the majority of them were speakers of the Wu dialect (35.6%) or Jianghuai Mandarin (20.2%) (see R. Li, 2001; Cao, 2008; Kurpaska, 2010), as supported by the interview data. Likewise, students' confusion between the pronunciation of vowels such as "u(/ju/)" and "u(/jəu/)", "i(/ai/)" and "i(/i/)", "e(/i:/)" and "e(/ei/)", "o(/ɔ:/)" and "o(/ə:/)", and "o(/ɔ/)" and "o(/u/)" may be explained by the negative transfer of their first language (see Corder 1992; Beghoul, 2007; W. Wu & Jiang, 2008). These findings, the first of their type in Corpus-based Interpreting Studies (cf. Setton, 2011) suggest interpreting learners' need for pronunciation enhancement at the tertiary level in China.

In this study, problems of repetition (14.71%) and self-correction (5.2%) were coded following the scheme of Bendazzoli et al. (2011) and were found to affect 19.91% of the tokens in the database. While there were no repetitions or truncated words in the source text of the elicitation test in the current study, the percentage of the influenced tokens was almost 25 times the number of influenced tokens in the English source speeches (0.802%) and close to 17 times those in the interpreted speeches from Italian into English (1.177%) (the largest percentage among all interpreted sub-corpora) in the EPIC (ibid, p. 293). Such a heavy distribution of influenced tokens suggests serious problem in students' outputs in the aspect of repetition and self-correction, especially with the occurrence of extreme cases of up to seven repetitions and four truncations found in the database.

A closer examination of the sub-types of repetitions suggest that approximately three quarters of the repetitions led to the successful confirmation of expressions, leaving nearly a quarter of the repetitions unfinished. This percentage of finished repetitions is large compared to the interpreted speeches in the EPIC (Bendazzoli et al., 2011), in which most of the repetitions for mispronounced words remained unfinished due to the time constraints and the nature of simultaneous interpreting. The majority of the repetitions occurred at the lexical level (63.08%) and syntactic level (35.45%), two categories almost absent in the English speeches and interpreting outputs in the EPIC. In the database, the repetitions usually occurred at the phonological level (ibid, p. 296).

The causes for repetitions in the current study included articulation (47.19%), lexical shift (25.01%), stalling (18.9%) and syntactic shift (8.9%), while those for the professional interpreters in the EPIC were articulation (over 67%) and stalling (less than 33%) (ibid, p. 297). The repetitions caused by lexical shift and syntactical shift, which did not exist in the outputs of professional interpreters in the EPIC, indicate students' uncertainty of vocabulary use and grammar in the target language, i.e., English, in the current study. In particular, the words that most often occurred together with repetitions in the database were the article "the" and fillers such as "en" and "er", which are habitual searching words of Chinese EFL learners (cf. H. Yang & Wei, 2005; Xiao & Xiang, 2008).

The distribution of finished and unfinished truncated segments resembles that of repetitions: close to three quarters of the truncated segments were finished. This percentage, although larger than that of most of the sub-corpora of speeches by professional interpreters in the EPIC, was smaller than that of the English source speeches (88%) or that of the sub-corpus of the interpreting outputs from Italian into English (94%) (Bendazzoli et al., 2011: 298). Truncated segments, unlike repetitions, occurred primarily at the phonological level (40.65%) but still occurred frequently at the syntactic (30.19%) and lexical levels (29.17%), two categories almost absent in the sub-corpora of interpretation of professional interpreters or source speeches in the EPIC (ibid, p. 300). Similar to the causes of repetitions, the causes for truncated segments in the current study included articulation (51.3%), lexical shift (33.8%), stalling (8.7%) and syntactic shift (6.2%). Although the distribution of causes for truncated segments in the EPIC displays a complicated pattern and is thus non-comparable to the current study, the substation distribution of the truncations at the lexical and even syntactic level also suggest students' uncertainty regarding vocabulary use and grammar when interpreting into their B language. Notably, the top three words surrounding truncations were the same as those of repetitions, reinforcing the suggestion that those terms are habitual searching words for Chinese EFL learners.

In sum, the corpus findings of the current study demonstrated pronunciation problems traceable to the influence of students' first language, an area rarely explored in Corpus-based Interpreting Studies (see Setton, 2011). These findings also complement

previous studies on disfluency and self-repairs, which compare the source language with the target language in simultaneous interpreting (cf. Tissi, 2000; Mead, 2005; Petite, 2005; Pradas Macías, 2006; Bendazzoli et al., 2011) and the influence of directionality in consecutive interpreting (cf. Mead, 2000). Certain patterns and features of learners' repetition and self-correction were found, indicative of the deficiency in their mastery of the target, or B language.

5.2 Implications of the Study

Through a multi-dimensional investigation of students' problems in learning interpreting, the current study sheds light on the pedagogy of interpreter training and has theoretical implications for Interpreting Studies at large.

5.2.1 Theoretical Implications

Based on the extant product-oriented, process-oriented and norm-based interpreting studies and existing schemes of accreditation tests and classroom assessment, the current study forwarded a three-layer problem analysis model in interpreting: a language/form level, a content/meaning level and a presentation/delivery level, each including a set of parameters discussed in separate studies (see Figure 5.3).

Figure 5.3. The three-layer model of problem analysis
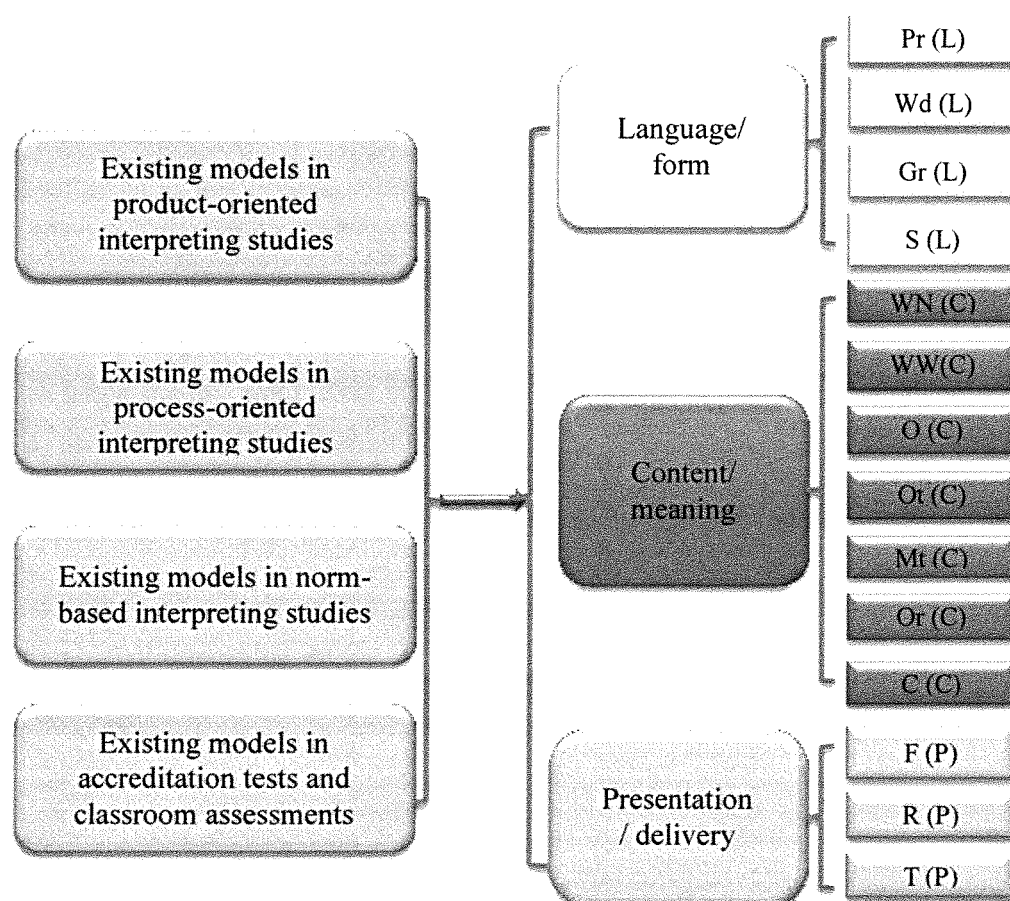
Note: See Table 3.2 for the coding of the problem types on the right.

This theoretical model indicates the key elements in the composition of interpreting product, i.e., language, content information and delivery package. Pöchhacker (2004) describes Interpreting Studies as comprised of five interrelated clusters of paradigms: the Interpretive Theory (IT) Paradigm, the Cognitive Processing (CP) Paradigm, the Neurolinguistics (NL) Paradigm, the Target-text oriented Translation-theoretical (TT) Paradigm and the Dialogue Discourse-based Interaction (DI) Paradigm. While content information or sense was studied in detail in the early IT Paradigm in Interpreting Studies (e.g. Lederer, 1978; Seleskovitch, 1975), the study of the delivery package serves a bridging role between the CP Paradigm and the more current DI Paradigm (see Pöchhacker, 2004). The model's additional dimension of language, with its origins in

Interlanguage Studies (see Selinker, 1972/1983), dovetails with the TT Paradigm in Interpreting Studies, especially given the increasing investigation of Corpus-based Interpreting Studies (see Shlesinger, 2008; Setton, 2011).

The three-layer model of problem analysis, in addition to recapturing key components of interpreting research, contributes to the current research on interpreting quality in particular. The quality parameters of previous studies were usually prescriptive rather than descriptive (Bühler, 1986; Kurz, 1989a, 1993, 1994, 2001; Chiaro & Nocella, 2004). As noted by Gile (1995a, 1995b), perceptions grounded in item-based quality parameters may be problematic, as is the long-standing question of who should assess the interpreting quality (see Gile, 1995a, Kurz, 2001; Pöchhacker, 2005). The problem analysis model in the current study, which results from a review of previous schemes in the literature and an analysis of data from a pilot study (see Pan & Yan, 2009, 2012), provides an open scheme whereby new parameters can be incorporated depending on the descriptive analysis of new data. Moreover, the current study applied and compared the perceptions of problems from different perspectives, including those from interpreting students and teachers, which were tested against the researcher's evaluation of students' actual problems with an elicitation test. The subsequent corpus-based analysis of the deviations between the problems that students' perceived and those that the teacher/researcher assessed offered insights into the quantification of quality parameters in the future.

This study also contributes to the investigation of interpreting aptitudes and interpreting competence. Most of the linguistic, affective and neurolingustic parameters listed in Brisau et al. (1994) were found to be influential in the learning of interpreting. In addition, the underrepresented "soft skills" or personality traits in previous aptitude research (Shlesinger & Pöchhacker, 2011, p. 4) were addressed alongside the more conventional factors of multitasking skills and short-term memory in this study. Moreover, this study explored the influence of social-biographic factors (e.g. gender, family background, dialect) in the learning of interpreting. The final model of the predicting factors to learners' achievement in interpreting includes a combination of linguistic competence (both A and B language), certain problem perceptions and interest related to the topics in interpreting (see Figure 5.2). It reinforces the importance of

language competence and knowledge structure in the learning of interpreting. The model also points to the significance of accurate self-assessment and self-monitoring, which deserve further attention in explorations of the construct of interpreting competence (cf. Kiraly, 1995; Campbell, 1998).

5.2.2 Pedagogical Implications

In addition to its theoretical significance, this study offers rich implications for both student work assessment and teaching methods in interpreting classrooms.

The three-layer problem analysis model developed in this study provides a scheme applicable in interpreting classrooms by both teachers and students. The comparison of students' self-assessment with the researcher's evaluation and subsequently corpus-based analysis challenges the traditional method of the teacher's holistic evaluation and questions the appropriate use of students' self-assessment. Students' self-assessment has recently gained recognition as a teaching approach or class objective (see Sainz, 1994; Hartley et al., 2003; Y. Lee, 2005; Fowler, 2007; Postigo Pinazo, 2008), but a comparison of learners' perceptions of their own problems and the teacher/researcher's evaluation in the current study paints a complicated picture. There was a general trend of students' underestimation of their problems (cf. Gile, 1995b; Campbell, 1998; Waddington, 2001; Bartłomiejczyk, 2007; Y. Lee, 2011). At this point, a combination of the teacher's evaluation with scaffolded assessment performed by students, in which instructions are given before, during and after their self-assessment (see Vygotsky, 1962; Lave & Wenger, 1991), can be a way forward. With the advances of modern technology and the development of a large interpreting corpus, more effective machine-based evaluation systems may be developed to play a substantial role in interpreting classroom evaluations (see Bowker, 2001; Lindquist, 2005; Hassani, 2011; Jimenez-Crespo, 2011).

Apart from the comparison of learners' perceptions of problems with the evaluation of their actual problems, the current study found several influential individual learner variables in the learning of interpreting, which should be addressed in interpreting classrooms.

First, teachers should recognize that their students differ socio-biographically. Given their dissimilarity in gender, family background and dialect acquisition, students

should be provided opportunities to demonstrate their potential in different aspects. Elective elements in the course modules or elective courses on language enhancement, such as pronunciation drills and public presentation skills (in students' A and B languages), and knowledge expansion in the fields of culture, economics, politics, etc., should be offered to those who require additional practice.

Students' affective factors should also be addressed. Because students often regard the profession of interpreting with excessive reverence, they should be taught to believe that good interpreting is difficult but not out of reach. A supportive classroom environment can help students develop an accurate self-image and increased self-confidence, which can help them manage the difficulties of the learning course (cf. Shaw et al., 2004; Shaw and Hughes, 2006; Chiang, 2010).

In addition, interpreting-related core skills, such as multitasking skills, note-taking and memory retention, should be enhanced through intensive exercise. Appropriate incentives, such as internship opportunities, should be offered so that students are motivated to practice interpreting outside of class.

Finally, the model, which includes predicting factors for interpreting achievement (Figure 5.2), suggests that language learning is indispensable to the learning of interpreting (cf. Yan et al., 2010). For interpreting training at the tertiary level, students' transition from language learners to interpreting learners should be facilitated (cf. Shaw et al., 2004). This process should include intensive language drills with a focus on sub-skills such as English listening and Chinese writing. The accumulation of vocabulary through extensive reading in unfamiliar fields may also be helpful (cf. Taylor, 1993). In addition, familiarization with interpreting, especially the criteria in assessing interpreting performance and the successful application of these criteria, form an indispensable part of interpreting education (cf. Angelelli, 2012).

5.3 Limitations of the Study

Despite the richness of this study, there are several limitations that should be kept in mind when interpreting its findings.

First, convenience sampling was applied in this study, involving a total of 317 undergraduate students and 4 interpreting teachers from a university in southeast China.

Although these students represented a variety of typical features concerning individual learner variables and problem perceptions, a strong local characteristic could be identified when analyzing the detailed influence of variables such as dialects in students' pronunciation. Because the majority of the students spoke the Wu and Jianghuai dialects, the pronunciation errors, especially the consonant mispronunciations, were highlighted by these dialects and thus were not representative of the Chinese population of interpreting learners at large. However, the suggestion that a student's first language (if it is a dialect other than Putonghua) may transfer in interpreting can still stand.

Second, although gender was a variable studied in this study, the distribution of male and female students was uneven, leading to difficulties in comparing these two groups. However, this distribution, as discussed in the previous section, reflected the state of the profession and of interpreting classrooms (see Kurz, 1996b). The findings concerning this variable should be interpreted with caution; however, with respect to statistics, they offered interesting insights into the gender composition of the profession.

Third, this study mapped the correlational relationship between a wide range of learner variables and learners' problem perceptions in interpreting. The selection of learner variables under investigation was based on previous research and some pilot efforts (e.g. Pan & Yan, 2009) but was in no way exhaustive. However, most of the learner variables investigated in the present study were underrepresented in previous explorations (cf. Brisau et al., 1994; Shlesinger & Pöchhacker, 2011) and this study therefore helped to unveil the myth of these players in interpreting learning. When combined with a meta-analysis of findings from studies regarding other interpreting learner variables, a more comprehensive picture of the influential learner variables in interpreting learning may be sketched.

In addition, correlational rather than causal relationships were identified between the learner variables and problem perceptions in this study. Although the latter might sound more interesting and practical to researchers and trainers, the correlational study design, with its own advantages, is regarded more appropriate to the research purpose of the present study, i.e., the investigation of the complicated matter of interpreting learning. According to Johnson (1991), the major advantage of correlational research lies in the fact that it can "alert us to associations among variables that are important in

the learning process" (p. 69). With the ability to investigate many variables at the same time, correlational research can "better represent the real complexities of phenomena" (ibid). Furthermore, the multivariate picture sketched by the correlational investigation in the present study may serve as the starting point, which is usually necessary, for cause-effect explorations undertaken by carefully designed experiments, whereby usually bivariate relationships or relationships among a limited number of variables are examined.

Fourth, most learner variables, including confidence and multitasking skills, were examined by one-item Likert scales in the questionnaire due to the large number of variables examined. The study's findings would be more reliable if multi-item scales were applied or developed; future research might address this challenge. However, the qualitative findings from the interview data provided supporting evidence to the quantitative findings from the questionnaire and helped to mitigate the weakness of one-item measurements.

Fifth, the mode of interpreting investigated here only concerns consecutive interpreting from the A into the B language. These findings cannot be generalized to simultaneous interpreting or interpreting from the B into the A language unless duplications of this study are pursued for those modes of interpreting. Nevertheless, the problem analysis scheme has been adapted and applied to simultaneous interpreting classrooms by the researcher in self-, peer- and teacher-evaluations and has been proved applicable.

Sixth, students' actual interpreting performance was only recorded during one elicitation test. Despite the effort to use two different text materials to elicit various problems, the test result may have failed in its goal of eliciting students' consistent problems due to the limitations of the text coverage, technical problems or students' mental state during the test. A test-retest design or a collection of longer interpreting outputs would be appropriate in further research. Longitudinal studies of the same student sample are another possible direction.

Seventh, the learner database constructed based on the elicitation test was limited in size and lacked a comparable corpus of professional interpreters. To analyze students' interlanguage in interpreting, the ideal design would be to compare it with a corpus with

same number of participants of professional interpreters taking the same test. However, due to time and coverage constraints, the present study only compared certain features of the learners' interpreting outputs with the reference target text and a corpus of professional interpreters (i.e., EPIC) that is non-comparable in content or language combinations. Findings generated from these comparisons should therefore be interpreted with discretion.

Finally, only the underestimated problems – inaccurate pronunciation and repetition and self-correction – were studied in detail in the corpus-based analysis. It would be interesting to analyze all problem types and compare them with students' perceptions and the researcher's evaluation. Nevertheless, the coding and annotation of errors are notoriously inconsistent and time-consuming (see Granger, 1998; Granger et al., 2002), especially for interpreting corpus that include special difficulties in the transcription of the extralingusitic features of the oral data (see Shlesinger, 2008; Setton, 2011). The current study, however, demonstrates the potential for using corpus analysis methods to analyze the whole spectrum of problems through the illustration of two problem types.

5.4 Suggestions for Future Research

With these limitations in mind, this study's findings call for future research in the following directions.

First, the present study may be duplicated in other universities or with other language combinations so that a comparison of findings can be achieved. It would also be interesting to look into the specific problems that arise when students interpret from their B language into their A language or with other language combinations.

Another possible direction is the in-depth exploration of individual problems at different levels and their relationship with students' overall interpreting achievement. With insights into these individual problems, it will be possible to explore the quantification of each problem type in interpreting and the quantification of parameters in quality research, a problem unresolved in previous studies (see Bühler, 1986; Kurz, 2001; Chiaro & Nocella, 2004). Such efforts will also prove worthwhile for the

development of machine-based evaluation systems for the learning of interpreting (see Bowker, 2001; Lindquist, 2005).

Moreover, to determine Chinese interpreting students' problem patterns and developmental stages, the construction of a larger learner corpus or application of the current scheme of error annotation to a larger existing learner corpus (e.g. Wen & J. Wang, 2009) is necessary, and cross-sectional comparisons should be made. The use or construction of comparable corpora will also be useful in this respect. One direction will be the comparison with a corpus of professional interpreters working from Chinese into English, annotated with the same types of problems, and another will be the comparison with another learner corpus with English speeches rather than interpretations (e.g. Wen, L. Wang, & Liang, 2005; H. Yang & Wei, 2005; Xiao & Xiang, 2008).

Given the fact that a large number of learner variables were found to be related to the learning of interpreting, an in-depth investigation of the interplay of several interrelated variables, such as affective factors, with the application of individual measurements developed for each variable (cf. Chiang, 2009, 2010) will be another worthwhile research path. Furthermore, based on the correlational relationships identified in this study, the construction of cause-effect relationships through carefully designed experiments or in-depth interviews will be a practical further extension. For example, the investigation of contributors to different problems in interpreting and a classification of problems by their causes such as language-deficiency, insufficient world knowledge and cognitive capacity will be of great operational value to interpreter training. The present study, however, provides the foundations for these future explorations.

5.5 Conclusions

This study, primarily driven by the difficulties in evaluating students' performance in interpreting classrooms, aims to assess tertiary learners' interpreting problems in a systematic and comprehensive manner. The study applied a three-layer problem analysis model (Figure 5.3) and examined learners' interpreting problems from multiple perspectives: learner perceptions, teacher evaluation and corpus-based analysis. Both students' problem perceptions and their actual problems in interpreting were

investigated and compared. The interplay between students' problem perceptions and individual learner variables (socio-biographic variables, language learning variables and interpreting learning variables) was explored (Figure 5.1), highlighting areas of future explorations regarding the construction of possible causal relationships. The study's results also included a model with predictive factors for students' interpreting achievement that is practical to interpreter training (Figure 5.2). A corpus-based analysis of students' underestimated interpreting problems – inaccurate pronunciation and repetition and self-correction – was also performed to quantify and help unveil the pattern of these specific problems.

With an interdisciplinary design, the present study successfully integrated theories and research methods of linguistics, applied linguistics, translation and interpreting studies. In particular, issues related to the learning of interpreting were approached from various perspectives. The novelty of such a multi-dimensional research framework brings vigor to the investigation carried out in this study, the results of which thereby contribute significantly to the learning and teaching of interpreting, as well as interpreting studies at large.

One of the greatest contributions of the present study lies in its integration of the perspectives of the teacher, the students and corpora into the analysis of students' problems in interpreting. Quality in interpreting has notoriously been regarded a thorny area to touch upon not only due to the number of possible parties involved and the variety of standards applied in its judgment (Shlesinger, 1997; Pöchhacker, 2004, 2005) but also due to the immediacy of interpreting activities and the unreliability of subjective assessment (cf. Gile, 1995b). In interpreting classrooms, teachers, although usually with appropriate experience and expertise in evaluating students' performance, may still encounter problems inherent in interpreting quality assessment. Also, without information provided from the learners' perspectives, it will be difficult to judge if a student's problematic performance was resulted from deficiency or if it belonged to the student's application of certain interpreting strategy (cf. Nord, 2005). Neither would a teacher tell if a student's good performance could last without the knowledge of the student's self-recognition of the problematic or accurate performance (cf. Tarone & Yule, 1989). Although students' self- and peer-evaluation have been gaining growing

attention in interpreter classrooms (e.g. Fowler, 2007), without the teacher's carefully designed scaffold (cf. Hartley et al. 2003) or constant feedback, such evaluations may result in complicated ends that may escape the right route towards the acquisition of interpreting competence (cf. Gile, 1995b). Therefore, the comparison between students' perceptions and the teacher's evaluation in the present study helped to reduce the limitations of unilateral judgment and highlighted components of interpreting competence that have yet not been acquired by the students. This study did not stop at this point; instead, it included a third perspective in the scenario through the construction of an interpreting learner corpus. With its focus on "a more empiricist" rather than "rationalist review of scientific inquiry" (Leech, 1992, p., 107), the corpus linguistic approach applied in this study helped to offer an objective perspective of the learners' performance, providing substantial evidence supplementary to human evaluation. The resulting multi-dimensional description of learners' problems in this study can thus be considered close to their actual scenario and generalizable to interpreting learners at the tertiary level.

Another important contribution of this study is its formation of a three-layer problem analysis scheme with 14 subtypes of problems at the language/form level, the content/meaning level and the presentation/delivery level based on previous literature and a few pilot efforts (see Figure 5.3). The scheme, highlighting the important components in interpreting, can be applied in the teaching of interpreting theories. It can be used as a checklist, suggesting the desired performance of interpreting learners. It is also possible to be employed in the measurement of interpreting competence. In addition, the analysis scheme can serve as a framework for both teacher and student evaluations in interpreting classrooms. With the shared scheme of analysis, the teacher can provide feedback that is easy to be understood by students and also in a more systematic way. It can therefore facilitate the scaffolding of students' learning of interpreting and better prepare students' integration in the community of interpreting practice (cf. Wenger, 2006).

The interpreting learner corpus constructed in this study forms another great contribution to both teaching and research in interpreting. Problems displayed in the learner corpus are applicable to those encountered by interpreting students at the tertiary

level education. Therefore, the corpus can be applied in interpreting teaching to introduce students' to possible problems that they might encounter in learning and more importantly, provide benchmark examples for both teachers and students in their grading and evaluation of interpreting performance at different levels. Furthermore, the corpus can add to the scarce pool of interpreting corpora and provide great insight into the features of students' interpreted texts (as opposed to those produced by professional interpreters). When compared with other corpora such as those of the native speakers, the present corpus may even generate findings regarding the differences between learners' performance and the desired goal of the community of professional interpreters.

In addition, the interrelationship identified between different learner variables and learners' problem perceptions (see Figure 5.1) and the predictive model of interpreting achievement (Figure 5.2), both by-products of the present study, provided another dimension of interpreting learning by linking up learners, their perceived world and their actual performance. Through the in-depth exploration of students' perceptions, the present study confirmed the important role of perceptions as a reflection of and guidance to students' learning (cf. Pan & Yan, 209, 2012; Yan et al., 2010), and also underlined the need to help students build correct perceptions in learning interpreting. Correlational in nature, findings of this study can "present the real complexities" (Johnson, 1991, p. 69) of interpreting learning. These findings also highlight the important factors in this intricate picture of interpreting learning, most of which were underrepresented in previous studies and constructive to the study of interpreting aptitudes and competence. They also serve as basis for the investigation of possible causal relationships in future explorations.

To conclude, the findings of this study shed light on key elements of interpreting practice, the development of quality parameters and classroom assessment schemes. The findings address several concerns in interpreting learning and teaching. The learner database constructed in the study, the first of its kind, offers the potential for a more detailed analysis and further investigations. This study opens a window on the complicated nature of interpreting learning and provides important inspirations for future explorations.

Bibliography

Agrifoglio, M. (2004). Sight translation and interpreting: A comparative analysis of constraints and failures. *Interpreting, 6*(1), 43-67.

Ahrens, B. (2005). Analysing prosody in simultaneous interpreting: Difficulties and possible solutions. *The Interpreters' Newsletter, 13*, 1-14.

AIIC. (2004a). How we work. Retrieved from http://www.aiic.net/ViewPage.cfm/article1097.htm

AIIC. (2004b). Practical guide for professional conference interpreters. Retrieved from http://www.aiic.net/ViewPage.cfm/article21.htm#44

Albl-Mikasa, M. (2008). (Non-) Sense in note-taking for consecutive interpreting. *Interpreting, 10*(2), 197-231.

Alderson, C. (1996). Do corpora have a role in language assessment? In J. Thomas and M. Short (Eds.), *Using corpora for language research: Studies in honour of Geoffrey Leech* (pp. 248-259). London/New York: Longman.

Alessandrini, M. S. (1990). Translating numbers in consecutive interpretation: An experimental study. *The Interpreters' Newsletter, 3*, 77-80.

Al-Hassnawi, A. R. (2010). Translanguage vs. Interlanguage: Exploration in translation strategies. *Translation Journal, 14*(3). Retrieved from http://translationjournal.net/journal//53translanguage.htm

Al Khafaji, A. H. A. (2007). Translanguage. *Meta, 52*(3), 436-476.

Al-Khanji, R., El-Shiyab, S., & Hussein, R. (2000). On the use of compensatory strategies in simultaneous interpretation. *Meta, 45*(3), 548-557.

Altman, H. J. (Ed.). (1987). *Teaching interpreting: Study and practice*. London: CILT.

Altman, H. J. (1994b). Error analysis in the teaching of simultaneous interpretation: A pilot study. In S. Lambert & B. Moser-Mercer (Eds.), *Bridging the gap: Empirical research in simultaneous interpretation* (pp. 25-38). Amsterdam: John Benjamins.

Al-Zoubi, M. Q. R., & Al-Hassnawi, A. R. (2001). Constructing a model for shift analysis in translation. *Translation Journal, 5*(4). Retrieved from http://translationjournal.net/journal//18theory.htm

American Psychological Association. (2007). *Report of the APA task force on socioeconomic status*. Washington, DC: American Psychological Association. Retrieved from http://www.apa.org/pi/ses/resources/publications/task-force-2006.pdf

Andeman, G., & Rogers, M. (Eds.). (2007). *Incorporating corpora: The linguist and the translator*. Clevedon/Buffalo/Toronto: Multilingual Matters Ltd.

Anderson, L. (1979). *Simultaneous interpretation: Context and translation aspects*. (Unpublished MA thesis). Concordia University, Montreal, Canada.

Anderson, L. (1994). Simultaneous interpretation: Contextual and translation aspects. In S. Lambert & B. Moser-Mercer (Eds.), *Bridging the gap: Empirical research in simultaneous interpretation* (pp. 101-120). Amsterdam: John Benjamins.

Angelelli, C. (2012, June). Teaching by principles: The value of an informed practice. Keynote speech at the 9th National Conference and International Forum on Interpreting, Beijing, PRC.

Arango-Keeth, F., & Koby, G. S. (2003). Assessing assessment: Translator training evaluation and the needs of industry quality assessment. In B. J. Baer & G. S. Koby (Eds.), *Beyond the ivory tower: Rethinking translation pedagogy* (pp. 117–134). Amsterdam/ Philadelphia: John Benjamins.

Austin, J. L. (1962). *How to do things with words*. New York: Oxford University Press.

Baer, B. J., & Bystrova-McIntyre, T. (2009). Assessing cohesion: Developing assessment tools on the basis of comparable corpora. In C. V. Angelelli & H. E. Jacobson (Eds.), *Testing and assessment in translation and interpreting studies: A call for dialogue between research and practice* (pp. 159-183). Amsterdam/ Philadelphia: John Benjamins.

Baker, M. (1993). Corpus linguistics and translation studies: Implications and applications. In M. Baker, M.G. Francis, & E. Tognini-Bonelli (Eds.), *Text and technology: In honour of John Sinclair* (pp. 233-250). Amsterdam & Philadelphia: John Benjamins.

Baker, M. (1995). Corpora in translation studies: An overview and some suggestions for future research. *Target, 7* (2), 223-243.

Bao, C. (2004). Daxue benke kouyi jiaoxue de dingwei ji jiaoxue [On the orientation and pedagogy of college interpreting programs]. *Zhongguo Fanyi [Chinese Translators Journal]*, *25*(5), 27-31.

Bao, C. (2008). Zaiyi daxue benke kouyi jiaoxue [Rediscussing college interpreting teaching]. *Waiyu Jiaoyu [Foreign Language Education]*, *00*, 1-7.

Baralt, M., & Gurzynski-Weiss, L. (2009, March). *Tradition vs. technology in stimulated recall: Learner's perceptions of feedback according to modality*. Paper presented at Georgetown University Round Table 2009, Washington, DC.

Barik, H. C. (1969). *A study of simultaneous interpretation*. (Unpublished doctoral dissertation). University of North Carolina at Chapel Hill, Chapel Hill, NC, USA.

Barik, H. C. (1971). A description of various types of omissions, additions and errors of translation encountered in simultaneous interpretation. *Meta, 16*(3), 199-210.

Barik, H.C. (1994). A description of various types of omissions, additions and errors of translation encountered in simultaneous interpretation. In S. Lambert & B. Moser-Mercer (Eds.), *Bridging the gap: Empirical research in simultaneous interpretation* (pp. 121-137). Amsterdam: John Benjamins.

Bartłomiejczyk, M. (2006). Strategies of simultaneous interpreting and directionality. *Interpreting, 8*(2), 149-174.

Bartłomiejczyk, M. (2007). Interpreting quality as perceived by trainee interpreters: Self-evaluation. *The Interpreter and Translator Trainer, 1*(2), 247-267.

Baumgarten, N., Meyer, B., & Özçetin, D. (2008). Explicitness in translation and interpreting: A critical review and some empirical evidence (of an elusive concept). *Across Languages and Cultures, 9*(2), 177-203.

Beeby, A., Rodríguez Inés, P., & Sánchez-Gijón, P. (Eds.). (2009). *Corpus use and translating: Corpus use for learning to translate and learning corpus use to translate*. Amsterdam/Philadelphia: John Benjamins.

Beghoul, Y. (2007). *The phonological interlanguage of the undergraduate students at the Department of English, University of Mentouri, Constantine*. (Unpublished doctoral dissertation). Mentouri University, Constantine, Algeria.

Bendazzoli, C., & Sandrelli, A. (2005). An approach to Corpus-based Interpreting

Studies: Developing EPIC (European Parliament Interpreting Corpus). In H. Gerzyminsch-Arbogast, & S. Nauert (Eds.), *MuTra-multidimensional translation conference proceedings*. Retrieved from http://www.euroconferences.info/proceedings/2005_Proceedings/2005_Bendazz oli_Sandrelli.pdf

Bendazzoli, C., & Sandrelli, A. (2009). Corpus-based Interpreting Studies: Early work and future prospects. *Tradumatica, 7*. L'aplicació dels corpus linguistics a la traducció. Retrieved from http://www.raco.cat/index.php/Tradumatica/article/viewFile/154835/206729

Bendazzoli, C., Sandrelli, A., & Russo, M. (2011). Disfluencies in simultaneous interpreting: A corpus-based analysis. In A. Kruger, K. Wallmach, & J. Munday (Eds), *Corpus-based translation studies: Research and applications* (pp. 282-306). London/New York: Continuum.

Biscaye, E. (1993). Problems in interpretation. *Meta, 38*(1), 101-103.

Bontempo, K., & Napier, J. (2011). Evaluating emotional stability as a predictor of interpreter competence and aptitude for interpreting. *Interpreting, 13* (1), 85-105.

Bowen, D. (1994). Teaching and learning styles. In C. Dollerup & A. Lindegaard (Eds.), *Teaching translation and interpreting 2: Insights, aims and visions. Papers from the Second Language International Conference, Elsinore, Denmark 4-6 June 1993* (pp. 175-181). Amsterdam/Philadelphia: John Benjamins.

Bowker, L. (2001). Towards a methodology for a corpus-based approach to translation evaluation. *Meta, 46* (2), 345-364.

Brisau, A., Godijns, R., & Meuleman, C. (1994). Toward a psycholinguistic profile of the interpreter. *Meta, 39*(1), 87-94.

Bühler, H. (1986). Linguistic (semantic) and extra-linguistic (pragmatic) criteria for the evaluation of conference interpretation and interpreters. *Multilingua, 5*(4), 231-235.

Cai, X. (2001). Jiaotichuanyi guocheng ji nengli fazhan: Zhongguo fayu yiyuan he xuesheng de jiaotichuanyi huodong shizheng yanjiu [Process of consecutive interpreting and competence development: An empirical study of consecutive

interpreting by Chinese-French interpreters and students of interpreting]. *Xiandai Waiyu (Jikan) [Modern Foreign Languages (Quarterly)]*, *24*(3), 276-284.

Cai, X. (2007). *Kouyi pinggu [Interpretation and evaluation]*. Beijing: Zhongguo Duiwai Fanyi Chuban Gongsi [China Translation and Publishing Company].

California Certified. (2010, Jan. 13). California certified interpreter oral performance evaluation guide. Retrieved from http://www.prometric.com/NR/rdonlyres/eb6qhlklghikr7fhqi2djztgsandz6plo2d mcpb4glkr2hjphdlpnc2ubd7spcrhhn2mf7zdpnbn5n472rust4n26pa/OralExamRat ingScalebooklet20100113.pdf

Campbell, S. (1991). Towards a model of translation competence. *Meta*, *36*(2-3), 329-343.

Campbell, S. (1998). *Translation into the second language*. London/New York: Longman.

Campbell, S., & Hale, S. (2003). Translation & Interpreting assessment in the context of educational measurement. In G. Anderman & M. Rogers (Eds.), *Translation today: Trends and* perspectives (pp. 205-224). Clevedon: Multilingual Matters.

Cao, Z. (Ed.). (2008). *Hanyu fangyan dituji [Cartographic material]*. Beijing: Shangwu Yinshuguan [Commercial Press].

Carlsen, C. (2009, March). *Proficient levels in corpus-based SLA research*. Paper presented at Georgetown University Round Table 2009, Washington, DC.

Carroll, J. B. (1966). An experiment in evaluating the quality of translations. *Mechanical Translation and Computational Linguistics*, *9*(3&4), 55-66.

Catford, J. C. (1965). *A linguistic theory of translation*. London: Oxford University Press.

Celce-Murcia, M., Brinton, D. M., & Goodwin, J. M. (1996). *Teaching pronunciation: A reference for teachers of English to speakers of other languages*. Cambridge: Cambridge University Press.

Chan, P. (2008). Address at the Installation of President cum Honorary Awards Ceremony on 11 Nov. 2008, City University of Hong Kong.

Chang, C. C. (2005). *Directionality in Chinese/English simultaneous interpreting: Impact on performance and strategy use*. (Unpublished doctoral dissertation).

The University of Texas at Austin, Austin, USA.

Chang, C. C., & Schallert, D. L. (2007). The impact of directionality on Chinese/English simultaneous interpreting. *Interpreting, 9*(2), 137-176.

Chang, C. C., & Wu, M. M. (2009). Address form shifts in interpreted Q&A sessions. *Interpreting, 11*(2), 164-189.

Chapelle, C. A., & Heift, T. (2009). Individual learner differences in CALL: The field of independence/dependence (FID) construct. *CALICO Journal, 26*(2), 246-266.

Chen, J. (2002). Cong Bachman Jiaojifa yuyan ceshi lilun moshi kan kouyi ceshi zhong de zhongyao yinsu [Fundamental considerations in interpreting testing]. *Zhongguo Fanyi [Chinese Translators Journal], 23*(1), 51-53.

Chen, J. (2009). Authenticity in accreditation tests for interpreters in China. *The Interpreter and Translator Trainer, 3*(2), 257-273.

Chernov, G. V. (2004). *Inference and anticipation in simultaneous interpreting.* Amsterdam/Philadelphia: John Benjamins.

Chesterman A. (1993). From "ought" to "is": Laws, norms and strategies in translation studies. *Target, 5*(1), 1-20.

Chesterman, A. (1999). Description, explanation, prediction: A response to Gideon Toury and Theo Hermans. In C. Schäffner, (Ed.), *Translation and norms* (pp. 90-97). Clevedon: Multilingual Matters Ltd.

Chiang, Y-N. (2006). *Connecting two anxiety constructs: An interdisciplinary study of foreign language anxiety and interpretation anxiety.* (Unpublished doctoral dissertation). The University of Texas at Austin, Austin, USA.

Chiang, Y-N. (2009). Foreign language anxiety in Taiwanese student interpreters. *Meta, 54*(3), 605-621.

Chiang, Y-N. (2010). Foreign language anxiety and student interpreters' learning outcomes: Implications for the theory and measurement of interpretation learning anxiety. *Meta, 55*(3), 589-601.

Chiaro D., & Nocella G. (2004). Interpreters' perception of linguistic and nonlinguistic factors affecting quality: A survey through the World Wide Web, *Meta, 49* (2), 278-293.

Choi, J-Y. (2006). Metacognitive evaluation method in consecutive interpretation for

novice learners. *Meta, 51*(2), 273-283

Chomsky, N. (1965). *Aspects of the theory of syntax.* Cambridge, MA: MIT Press.

CILISAT. (n.d.). Information for candidates preparing for CILISAT (the Cultural Interpreter Language and Interpretation Assessment Tools) tests. Ottawa: Cisoc (Cultural Interpretation Service for Our Communities). Retrieved from http://www.cisoc.net/_Files/CILISAT_PREPARATION_GUIDE.pdf

Clifford, A. (2001). Discourse theory and performance-based assessment: Two tools for professional interpreting. *Meta, 46*(2), 365-378.

Clifford, A. (2005). Putting the exam to the test: Psychometric validation and interpreter certification. *Interpreting, 7*(1), 97-131

Cokely, D. (1986). The effects of lag time on interpreter errors. *Sign Language Studies, 53,* 314-375.

Colina, S. (2002). Second language acquisition, language teaching and translation studies. *The Translator, 8*(1), 1-24.

Corder, S. P. (1967/1983). The significance of learners' errors. In B. W. Robinett & J. Schachter (Eds.), *Second language learning: Contrastive analysis, error analysis, and related aspects* (pp. 163-172). Ann Arbor: The University of Michigan Press.

Corder, P. (1992). A role of the mother tongue. In S. Gasa & L. Selinker (Eds), *Language transfer in language learning* (pp. 18-31). Amsterdam: John Benjamins.

Creswell, J. W. (1994). *Research design: Qualitative & quantitative approaches.* California: Sage Publications, Inc.

Dai, Z. (2011). A study on disfluency in Chinese to English interpretations of Chinese EFL learners. *Shanghai Journal of Translators,* (01), 38-43.

Dam, H. V. (2001). On the option between form-based and meaning-based interpreting: The effect of source text difficulty on lexical target text form in simultaneous interpreting. *The Interpreters' Newsletter, 11,* 27-55.

Dawrant, A., & Jiang, H. (2001, July-August). Conference interpreting in mainland China. *AIIC Webzine.* Retrieved from http://www.aiic.net/ViewPage.cfm/article252.htm

De Haan, P. (1992). The optimum corpus sample size? In Leither, G. (Ed.), *New directions in English language corpora* (pp. 3-19). Berlin & New York: Mouton de Gruyter.

Delisle, J. (Ed.). (1981). *L'enseignement de l'interpretation et de la traduction - de la theorie a la pedagogie.* Cahiers de traductologie 4. Ottawa, Canada: Editions de l'Université d'Ottawa.

Dewaele, J-M., Petrides, K. V., & Furnham, A. (2008). Language anxiety among adult multilinguals: A review and empirical investigation. *Language Learning, 58*(4), 911-960.

Díaz Galaz, S. (2011). The effect of previous preparation in simultaneous interpreting: Preliminary results. *Across Languages and Cultures, 12* (2), 173–191.

Dillinger, M. (1990). What do interpreters know that bilinguals don't? *The Interpreters' Newsletter, 3,* 41-58

Dillinger, M. (1994). Comprehension during interpreting: What do interpreters know that bilinguals don't? In S. Lambert & B. Moser-Mercer (Eds.), *Bridging the gap: Empirical research in simultaneous interpretation* (pp. 155-189). Amsterdam/Philadelphia: John Benjamins.

Diriker E. (2008). Exploring conference interpreting as a social practice. In A. Pym, M. Shlesinger, & D. Simeoni (Eds.), *Beyond descriptive translation studies: Investigations in homage to Gideon Toury* (pp. 209-219). Amsterdam/Philadelphia: John Benjamins.

Dollerup, C., & Appel, V. (Eds.). (1996). *Teaching translation and interpreting 3: New horizons.* Amsterdam/Philadelphia: John Benjamins.

Dollerup, C., & Lindegaard, A. (Eds.). (1994). *Teaching translation and interpreting 2: Insights, aims, visions.* Amsterdam/Philadelphia: John Benjamins.

Dollerup, C., & Loddegaard, A. (Eds.). (1992). *Teaching translation and interpreting: Training, talent and experience.* Amsterdam/Philadelphia: John Benjamins.

Donato, V. (2003). Strategies adopted by student interpreters in SI: A comparison between the English-Italian and German-Italian language-pairs. *The Interpreters' Newsletter, 12,* 101-133.

Donovan, C. (2004). European Masters Project Group: Teaching simultaneous

interpretation into a B language: Preliminary findings. *Interpreting, 6*(2), 205-216.

Ebrey, P. B. (2010). *The Cambridge illustrated history of China* (2nd ed.). Cambridge: Cambridge University Press.

Ellis, R. (2008). *The study of second language acquisition* (2nd ed.). Oxford: Oxford University Press.

Falbo, C. (1998). Analyse des erreurs en interprétation simultanée. *The Interpreters' Newsletter, 8*, 107-120.

Fernández-Silva, S., & Kerremans, K. (2011). Terminological variation in source texts and translations: A pilot study. *Meta, 56*(2), 318-335.

Ficchi, V. (1999). Learning consecutive interpretation: An empirical study and an autonomous approach. *Interpreting, 4*(2), 199-218.

Fowler, Y. (2007). Formative assessment: Using peer and self-assessment in interpreter training. In C. Wadensjö, B. Englund Dimitrova, & A-L. Nilsson (Eds.), *The critical link 4. Professionalisation of interpreting in the community. Selected papers from the 4th International Conference on Interpreting in Legal, Health and Social Service Settings, Stockholm, Sweden, 20-23 May 2004* (pp. 253-262). Amsterdam/Philadelphia: John Benjamins.

Gardner, R. C. (1985a). *The attitude/motivation test battery: Technical report.* Ontario: Department of Psychology, University of Western Ontario.

Gardner, R. C. (1985b). *Social psychology and second language learning: The role of attitudes and motivation.* London: Edward Arnold.

Garzone G. (2002). Quality and norms in interpretation. In G. Garzone & M. Viezzi (Eds.), *Interpreting in the 21st century* (pp. 107-119). Amsterdam/ Philadelphia, John Benjamins.

Gerver, D. (1969/2002). The effects of source language presentation rate on the performance of simultaneous conference interpreters. In F. Pöchhacker, & M. Shlesinger (Eds.), *The interpreting studies reader* (pp. 52-66). London; New York, NY: Routledge.

Gerver D. (1971). The effects of source language presentation rate on the performance of simultaneous conference interpreters. In E. Foulke (Ed.), *Proceedings of the*

2nd Louisville Conference on Rate and/or frequency controlled Speech (pp. 162-184). Louisville: Universityof Louisville.

GIIT. (2011). GIIT conference interpreter training program: 2011 enrollment. Retrieved from http://giit.shisu.edu.cn/interpretation/zh/enroll.htm

Gile, D. (1990). L'évaluation de la qualité de l'interprétation par les délégués: une étude de cas. *The Interpreters' Newsletter, 3,* 66-71.

Gile, D. (1994). Methodological aspects of interpretation and translation research. In S. Lambert & B. Moser-Mercer (Eds.), *Bridging the gap: Empirical research in simultaneous interpretation* (pp. 39-56). Amsterdam: John Benjamins.

Gile, D. (1995a). *Basic concepts and models for interpreter and translator training.* Amsterdam/Philadelphia: John Benjamins Publishing Company.

Gile, D. (1995b). Fidelity assessment in consecutive interpretation: An experiment. *Target, 7*(1), 151-164.

Gile, D. (1998a). Norms in research on conference interpreting: A response to Theo Hermans and Gideon Toury. *Current Issues in Language and Society, 5*(1&2), 99-106.

Gile, D. (1998b). Observational studies and experimental studies in the investigation of Conference Interpreting. *Target, 10*(1), 69-93.

Gile, D. (2004). Translation research versus interpreting research: Kinship, differences and prospects for partnerships. In C. Schäffner (Ed.), *Translation research and interpreting research: Traditions, gaps and synergies* (pp. 10-34). Clevedon: Multilingual Matters Ltd.

Gile, D. (2009). *Basic concepts and models for interpreter and translator training* (Revised edition). Amsterdam/Philadelphia: John Benjamins.

Gilquin, G., Papp, S., & Díez-Bedmar, M. B. (Eds.). (2008). *Linking up contrastive and learner corpus research.* Amsterdam/New York: Rodopi.

Goldman-Eisler, F. (1967). Sequential temporal patterns and cognitive processes in speech. *Language & Speech, 10*(2), 122-132.

González Davies, M. (2004).*Multiple voices in the translation classroom: Activities, tasks and projects.* Amsterdam/Philadelphia: John Benjamins.

Gorm Hansen, I., & Shlesinger, M. (2007). The silver lining: Technology and self-study

in the interpreting classroom. *Interpreting, 9*(1), 95-118.

Granger, S. (Ed.). (1998). *Learner English on computer.* London & New York: Longman.

Granger, S. (2002). A bird's-eye view of learner corpus research. In S. Granger, J. Hung, & S. Petch-Tyson. (Eds.), *Computer learner corpora, second language acquisition and foreign language teaching* (pp. 3-33). Amsterdam/Philadelphia: John Benjamins Publishing Company.

Granger, S., Hung, J., & Petch-Tyson, S. (Eds.). (2002). *Computer learner corpora, second language acquisition and foreign language teaching.* Amsterdam/Philadelphia: John Benjamins Publishing Company.

Grant, D. A. & Berg, E. A. (1948). A behavioural analysis of degree of reinforcement and ease of shifting to new responses in a Weigl-type card sorting problem. *Journal of Experimental Psychology, 38,* 404-411.

Grbić, N. (2008). Constructing interpreting quality. *Interpreting, 10*(2), 232-257.

Gumul, E. (2006). Explicitation in simultaneous interpreting: A strategy or a by-product of language mediation? *Across Languages and Cultures, 7*(2), 171-190.

Guo, H. (2010). Tan yingyu kouyi jingsai zhong de kouyi zhiliang pinggu [A tentative analysis on performance evaluation in interpreting contests]. *Yuwen Xuekan: Waiyu Jiaoyu Jiaoxue [Journal of Language and Literature Learning]*, (4), 106-107.

Halverson, S. (1998). Translation studies and representative corpora: Establishing links between translation corpora, theoretical/descriptive categories and a conception of the object of study. *Meta, 43*(4), 494-514.

Hansen, G., Chesterman, A., & Gerzymisch-Arbogast, H. (Eds.). (2008). *Efforts and models in interpreting: A tribute to Daniel Gile.* Amsterdam/Philadelphia: John Benjamins.

Harris, B. (1975). Notation and index for informative congruence in translation. *Meta, 20*(3), 184-193.

Harris, B. (1990). Norms in interpretation. *Target, 2*(1), 115-119.

Harris, B., & Sherwood, B. (1978). Translation as an innate skill. In D. Gerver & W. H. Sinaiko (Eds), *Language interpretation and communication (Proceedings of the*

NATO Symposium on Language Interpretation and Communication, Giorgio Cini Foundation, Venice, 1977), NATO Conference Series, Series III (Human Factors), 6 (pp. 155-170). New York: Plenum.

Hartley, A., Mason, I., Peng, G., & Perez, I. (2003). Peer- and self-assessment in conference interpreter training. Retrieved from http://www.llas.ac.uk/resourcedownloads/1454/hartley.rtf

Hassani, G. (2011) A corpus-based evaluation approach to translation improvement. *Meta, 56*(2), 351-373.

Healthcare Interpretation Network. (2007). National standard guide for community interpreting service. Retrieved from http://www.multi-languages.com/materials/National_Standard_Guide_for_Community_Interpretin g_Services.pdf

Hermans, H. J. M. (1968/2004). *Prestatie Motivatie Test [Achievement Motivation Test].* Lisse: Harcourt Test Publishers.

Hermans, T. (1999). Translation and normativity. In C. Schäffner, (Ed.), *Translation and norms* (pp. 50-71). Clevedon: Multilingual Matters Ltd.

Holub, E. (2010). Does intonation matter? The impact of monotony on listener comprehension. *The Interpreters'Newsletter, 15*, 177-126.

Horwitz, E.K. (1988). The beliefs about language learning of beginning university foreign language students. *Modern Language Journal, 72*(3), 283-294.

Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign language classroom anxiety. *The Modern Language Journal, 70*, 125-132.

Horváth, I. (2007). Autonomous learning: What makes it work in postgraduate interpreter training? *Across Languages and Cultures, 8*(1), 103-122.

House, J. (2008). Beyond intervention: Universals in translation? *Trans-kom, 1*(1), 6-19. Retrieved from http://www.trans-kom.eu/bd01nr01/trans-kom_01_01_02_House_Beyond_Intervention.20080707.pdf

Hung, E. (Ed.). (2002). *Teaching translation and interpreting 4: Building bridges.* Amsterdam/Philadelphia: John Benjamins.

IBM. (2011). IBM SPSS 19.0. US: IBM software.

Jääskeläinen, R. (2004). The fate of "The Families of Medellín": Tampering with a

potential translation universal in the translation class. In A. Mauranen & P. Kujamäki (Eds.), *Translation universals: Do they exist?* (pp. 205-214) Amsterdam/Philadelphia: John Benjamins.

James, C. (1998). *Errors in language learning and use: Exploring error analysis.* London; New York: Longman.

Jeong, C-J. (2005). Learner needs analysis for T&I program reform. *Meta, 50*(4). Retrieved from http://www.erudit.org/revue/meta/2005/v50/n4/019866ar.pdf

Jimenez-Crespo, M. A. (2011). A corpus-based error typology: towards a more objective approach to measuring quality in localization. *Perspectives: Studies in Translatology, 19* (4), 315-338.

Jiménez Ivars, A., & Pinazo Calatayud, D. (2001). "I failed because I got very nervous". Anxiety and performance in interpreter trainees: an empirical study. *The Interpreters' Newsletter, 11*, 105-118.

Jin, Z. (1990). *Keju zhidu yu zhongguo wenhua [The imperial examination system and Chinese culture]*, Shanghai: Shanghai Renmin Chubanshe [Shanghai People's Press].

Johnson, D. M. (1992). *Approaches to research in second language learning.* New York & London: Longman.

Jones, L. C. (2009). Supporting student differences in listening comprehension and vocabulary learning with multimedia annotations. *CALICO Journal, 26*(2), 267-289.

Kalina, S. (2000). Interpreting competences as a basis and a goal for teaching. *The Interpreters' Newsletter, 10*, 3-32.

Kalina, S. (2002). Quality in interpreting and its prerequisites: A framework for a comprehensive view. In G. Garzone & M. Viezzi (Eds.), *Interpreting in the 21st century* (pp. 121-130). Amsterdam/Philadelphia: John Benjamins.

Kalina, S. (2005). Quality assurance for interpreting processes. *Meta, 50*(2), 768-784

Kalina, S., & Köln, F. (2000). Interpreting competences as a basis and a goal for teaching. *The Interpreters' Newsletter, 10*, 3-32.

Karmiloff-Smith, A. (1978). Adult simultaneous interpretation: A functional analysis of linguistic categories and a comparison with child development. In D. Gerver &

W. H. Sinaiko (Eds), *Language interpretation and communication (Proceedings of the NATO Symposium on Language Interpretation and Communication, Giorgio Cini Foundation, Venice, 1977), NATO Conference Series, Series III (Human Factors), 6* (pp. 369-383). New York: Plenum.

Kellett Bidoli, C. J. (2005). From voice to gesture: Methodological aspects in the compilation of a terminological, tri-lingual, multimodal dictionary. *The Interpreters'Newsletter, 13,* 71-85.

Kelly, D. (2007). Translator competence contextualized. Translator training in the framework of higher education reform: In search of alignment in curricular design. In D. Kenny & K. Ryou (Eds.), *Across boundaries: International perspectives on Translation Studies* (pp.128-142). Newcastle: Cambridge Scholars Publishing.

Kelly, D., & Way, C. (2007). Editorial: On the launch of *ITT. The Interpreter and Translator Trainer, 1*(1), 1-13.

Kim, H-O. (1994). *A descriptive analysis of errors and error patterns in consecutive interpretation from Korean into English.* (Unpublished doctoral dissertation). Illinois State University, Illinois, USA.

Kim, M. (2007). Translation error analysis: A systemic functional grammar approach. In D. Kenny & K. Ryou (Eds), *Across boundaries: International perspectives on Translation Studies* (pp. 161-175). Newcastle: Cambridge Scholars Publishing.

Kim, M. (2009). Meaning-oriented assessment of translations: SFL and its application to formative assessment. In C. V. Angelelli & H. E. Jacobson (Eds.), *Testing and assessment in Translation and Interpreting Studies: A call for dialogue between research and practice* (pp. 123-157). Amsterdam/ Philadelphia: John Benjamins.

Kiraly, D. C. (1995). *Pathways to translation* (Translation Studies Series, No. 3). Kent, Ohio: The Kent State University Press.

Kiraly, D. C. (2000). *A social constructivist approach to translator education: Empowerment from theory to practice.* Manchester, UK; Northampton, Mass.: St. Jerome.

Kohn, K., & Kalina, S. (1996). The strategic dimension of interpreting. *Meta, 41*(1), 118-138.

Kopczynski, A. (1994a). Quality in conference interpreting: Some pragmatic problems. In S. Lambert & B. Moser-Mercer (Eds.), *Bridging the gap: Empirical research in simultaneous interpretation* (pp. 87-99). Amsterdam: John Benjamins.

Kopczynski, A. (1994b). Quality in conference interpreting: Some pragmatic problems. In M. Snell-Hornby, F. Pöchhacker, & K. Kaindl (Eds.), *Translation studies. An interdiscipline* (pp. 189-198). Amsterdam/ Philadelphia: John Benjamins.

Krings, H. P. (1986). *Was in den Koepfen von Uebersetzern vorgeht: Eine empirische Untersuchung der Strukur des Uebersetzungs prozesses an fortgeschrittenen Franzoesischlernen*. Tübingen: Gunter Narr.

Kujamäki, P. (2004). What happens to "unique items" in learners' translations? "Theories" and "concepts" as a challenge for novices' views on "good translation". In A. Mauranen & P. Kujamäki (Eds.), *Translation universals: Do they exist?* (pp. 187-204) Amsterdam/Philadelphia: John Benjamins.

Kurpaska, M. (2010). *Chinese language(s): A look through the prism of the great dictionary of modern Chinese dialects*. Berlin/ New York: De Gruyter Mouton.

Kurz, I. (1989a). Conference interpreting: User expectations. In D. L. Hammond (Ed.), *Coming of age. Proceedings of the 30th Annual Conference of the American Translators Association* (pp. 143-148). NJ: Medford.

Kurz I. (1989b). Book review: Causes and effects of the feminization of the profession of translating and interpreting (Thesis of Christa Maria Zeller). *The Interpreters' Newsletter, 2,* 73-74.

Kurz, I. (1993). Conference interpretation: Expectations of different user groups. *The Interpreters' Newsletter, 5,* 13-21.

Kurz, I. (1994). What do different user groups expect from a conference interpreter? *The Jerome Quarterly, 9*(2), 3-7.

Kurz, I. (1996a). *Simultandolmetschen als Gegenstand der interdisziplinären Forschung*. Vienna: WUVUniversitätsverlag.

Kurz I. (1996b). Scribe or actor? A survey paper of personality profiles of translators and interpreters, *The Interpreters' Newsletter, 7,* pp. 3-18.

Kurz, I. (2001). Conference interpreting: Quality in the ears of the user. *Meta, 46* (2), 394-409.

Kurz, I., Chiba, D., Pastore, M., & Medinskaya, V. (2000). Translators and interpreters: Different learning styles? *Across Languages and Cultures, 1*(1), 71-83.

Kussmaul, P., & Tirkkonen-Condit, S. (1995). Think-aloud protocol analysis in translation studies. *TTR: Traduction, Terminologie, Rédaction, 8*(1), 177-199.

Lambert, S. M. (1984). *Recall and recognition among conference interpreters.* (Unpublished doctoral dissertation). University of Stirling, Stirling, Scotland.

Lambert, S. (1989). Recall and recognition among conference interpreters. In G. Gran & J. Dodds (Eds.), *The theoretical and practical aspects of teaching conference interpretation* (pp. 83-91). Udine: Campanotto.

Lambert, S. (1991). Aptitude testing for simultaneous interpretation at the University of Ottawa. *Meta, 36*(4), 586-594.

Lave, J., & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambriddge: Cambridge University Press.

Laviosa, S. (1998). The corpus-based approach: A new paradigm in translation studies. *Meta, 43*(4), 474-479.

Laviosa, S. (2002). *Corpus-based translation studies: Theory, findings, applications.* Amsterdam/New York: Rodopi.

Lederer, M. (1978). Simultaneous interpretation: Units of meaning and other features. In D. Gerver and H.W. Sinaiko (Eds.), *Language interpretation and communication* (pp. 323-333). New York/London: Plenum Press.

Lederer, M. (1981). *La traduction simultanee.* Paris: Minard Lettres Modernes.

Lee, J. (2008). Rating scales for interpreting performance. *The Interpreter and Translator Trainer, 2*(2), 165-184.

Lee, J. (2009). Toward more reliable assessment of interpreting performance. In H., Sandra Beatriz, U. Ozolins, & L. Stern (eds.), *The critical link 5: Quality in interpreting - a shared responsibility* (pp. 171-185). Amsterdam/ Philadelphia: John Benjamins.

Lee, Y-H. (2005). Self-assessment as an autonomous learning tool in an interpretation classroom. *Meta, 50*(4). Retrieved from http://www.erudit.org/revue/meta/2005/v50/n4/019869ar.pdf

Lee, Y-H. (2011). Comparing self-assessment and teacher's assessment in interpreter

training. *T & I Review,* (1), 87-112.

Leech, G. (1992). Corpora and theories of linguistic performance. In J. Svartvik (ed.), *Directions in Corpus Linguistics: Proceedings of the Nobel Symposium* (pp. 105-122). Berlin/New York: Mouton de Gruyter.

Levelt, W. J. M. (1983). Monitoring and self-repair in speech. *Cognition, 14,* 41–104.

Li, C. (2006). Differences of quality assessment criteria between simultaneous interpreting and consecutive interpreting. In M. Chai & J. Zhang (Eds.), *Professionalization in interpreting: International experience and developments in China* (pp. 412-436). Shanghai: Shanghai Foreign Language Education Express.

Li, D. (2000a). Needs assessment in translation teaching: Making translator training more responsive to social needs. *Babel, 46*(4), 289-299.

Li, D. (2000b). Tailoring translation programs to social needs: A survey of professional translators. *Target, 12*(1), 127-149.

Li, D. (2002). Translator training: What translation students have to say. *Meta, 47*(4), 513-531.

Li, D., & Hu, M. (2006). Xuexizhe wei zhongxin de fanyi kecheng shezhi [Curriculum development in translation education: A learner-centered approach]. *Waiguoyu [Journal of Foreign Languages], 2,* 59-65.

Li, R. (2001). *Hanyu fangyanxue [The study of Chinese dialects].* Beijing: Gaodeng Jiaoyu Chubanshe [Higher Education Press].

Liao, P-S. (2002). *Taiwanese college students' beliefs about translation and their use of translation as a strategy to learn English.* (Unpublished doctoral dissertation). The University of Texas at Austin, Austin, USA.

Lightbown, P. M., & Spada, N. (2006). *How languages are learned* (3rd ed.). New York: Oxford University Press.

Lin, C. (2004). *Field interpreting.* Beijing: Foreign Language Teaching and Research Express.

Lindquist, P. P. (2005). Technologies, discourse analysis, and the spoken word: The MRC approach: An empirical approach to interpreter performance evaluation and pedagogy. *Meta, 50*(4), 1492-1421.

Liu, H. (2007). Kouyi peixun de dingwei yu zhuanye jianshe [Positioning and professionalism in interpreter training]. *Guangdong Waiyu Waimao Daxue Xuebao [Journal of Guangdong University of Foreign Studies], 18*(3), 8-11.

Liu, M. (2001). *Expertise in simultaneous interpreting: A working memory analysis.* (Unpublished doctoral dissertation). The University of Texas at Austin, Austin, USA.,

Longley, P. (1989). The use of aptitude testing in the selection of students for conference interpretation training. In L. Gran and J. Dodds (Eds), *The theoretical and practical aspects of teaching conference interpretation* (pp. 105-108). Udine: Campanotto.

López Gómez, M. J., Bajo Molina, T., Padilla Benítez, P., & Santiago de Torres, J. (2007). Predicting proficiency in signed language interpreting: A preliminary study. *Interpreting, 9*(1), 71-93.

Lörscher, W. (1986). Linguistic aspects of translation processes: Towards an analysis of translation performance. In J. House & S. Blum-Kulka (Eds.), *Interlingual and intercultural communication: Discourse and cognition in translation and second language acquisition studies* (pp. 277-292). Tubingen: Gunter Narr.

Lörscher W. (1991). *Translation performance, translation process, and translation strategies: A psycholinguistic investigation.* Tübingen: Gunter Narr.

Lörscher, W. (1992). Process-oriented research into translation and implications for translation teaching. *TTR: Traduction, Terminologie, Rédaction, 5*(1), 145-161.

Macnamara, N., Moore, A. B., Kegl, J. A., & Conway, A. R.A. (2011). Domain-general cognitive abilities and simultaneous interpreting skill. *Interpreting, 13*(1), 121-142.

Malkiel, B. (2008). What can grades teach us? *Perspectives: Studies in Translatology, 16*(1&2), 61-71.

Malmkjær, K. (1998). *Translation and language teaching: Language teaching and translation.* Manchester: St. Jerome.

Marrone, S. (1993). Quality: A shared objective. *The Interpreters' Newsletter*, 5, 35-41.

Marzocchi, C. (2005). On norms and ethics in the discourse on interpreting. *The Interpreters' Newsletter, 13*, 87-107.

Masgoret, A. M., & Gardner, R. C. (2003). Attitudes, motivation, and second language learning: A meta-analysis of studies conducted by Gardener and associates. *Language Learning, 53*(S1), 167-210.

Mauranen, A., & Kujamäki, P. (Eds.). (2004). *Translation universals: Do they exist?* Amsterdam/Philadelphia: John Benjamins.

Mazza, C. (2001). Numbers in simultaneous interpretation. *The Interpreters' Newsletter, 11,* 87-104.

McAlester, G. (1992). Teaching translation into a foreign language: Status, scope and aims. In C. Dollerup & A. Loddegaard (1992). *Teaching translation and interpreting: Training, talent and experience* (pp. 291-297). Amsterdam/Philadelphia: John Benjamins.

McCroskey, J. C., & McCroskey, L. L. (1988). Self-report as an approach to measuring communication competence. *Communication Research Reports, 5* (2), 108–113.

Mead, P. (2000). Control of pauses by trainee interpreters in their A and B languages. *The Interpreters' Newsletter, 10,* 89-102.

Mead, P. (2002). Exploring hesitations in consecutive interpreting: An empirical study. In G. Garzone & M. Viezzi (Eds.), *Interpreting in the 21st century* (pp.73-82). Amsterdam/Philadelphia: John Benjamins.

Mead, P. (2005). Methodological issues in the study of interpreters' fluency. *The Interpreters' Newsletter, 13,* 39-63.

Meuleman, C., & Van Besien, F. (2009). Coping with extreme speech conditions in simultaneous interpreting. *Interpreting, 11*(1), 20-34.

Monti, C., Bendazzoli, C., Sandrelli, A., & Russo, M. (2005). Studying directionality in simultaneous interpreting through an electronic corpus: EPIC (European Parliament Interpreting Corpus). *Meta, 50*(4). Retrieved from http://www.erudit.org/revue/meta/2005/v50/n4/019850ar.pdf

Moser, P. (1995). *Simultanes Konferenzdolmetschen. Anforderungen und Erwartungen der Benutzer. Endbericht im Auftrag von AIIC.* Vienna: SRZ Stadt und Regionalforschung GmbH.

Moser, P. (1996). Expectations of users of conference interpretation. *Interpreting, 1*(2), 145-178.

Moser-Mercer, B. (1985). Screening latent interpreters. *Meta, 30*(1), 97-100.

Moser-Mercer, B. (2000/01). Simultaneous interpreting: cognitive latent and limitations. *Interpreting, 5*(2), 83-94.

Moser-Mercer, B., Class, B., & Seeber, K. G. (2005). Leveraging virtual learning environments for training interpreter trainers. *Meta, 50*(4). Retrieved from http://www.erudit.org/revue/meta/2005/v50/n4/019872ar.pdf

Moser-Mercer, B., Kuenzli, A., & Korac, M. (1998). Prolonged turns in interpreting: Effects on quality, physiological and psychological stress (Pilot study). *Interpreting, 3*(1), 47-64.

Moser-Mercer, B., Lambert, S., Darò, V., & Williams. S. (1997). Skill components in simultaneous interpreting. In Y. Gambier, D. Gile, & C. Taylor (Eds.), *Conference interpreting: Current trends in research* (pp. 133-148). Amsterdam/ Philadelphia: John Benjamins.

Munday, J. (1998). A computer-assisted approach to the analysis of translation shifts. *Meta, 43*(4), 542-556.

Napier, J. (2004). Interpreting omissions: A new perspective. *Interpreting, 6*(2), 117-142.

Napier, J. (2010). A case study of the use of storytelling as a pedagogical tool for teaching interpreting students. *The Interpreter and Translator Trainer, 4*(1), 1-32.

National Interpreting Contest. (2010). *The scoring criteria of the national interpreting contest 2010 (final)*. Chengdu: Sichuan University.

N.d. (n.d.). Tips for taking the federal oral exam. Retrieved from http://www.acebo.com/fedtips.htm

Ng, B. C., & Obana, Y. (1991). The use of introspection in the study of problems relating to interpretation from Japanese to English. *Meta, 36*(2-3), 367-381.

Nord, C. (2005). *Text analysis in translation: Theory, methodology, and didactic application of a model for translation-oriented text analysis* (2nd ed.). Amsterdam/New York : Rodopi.

Nunan, D. (1992/2008). *Research methods in language learning* (18th printing). Cambridge: Cambridge University Press.

Orozco, J. M., & Hurtado Albir, A. (2002). Measuring translation competence

acquisition. *Meta, 47*(3), 375-402.

PACTE. (2005). Investigating translation competence: Conceptual and methodological issues. *Meta, 50*(2), 609-619.

Pan, J., Sun, Z., & Wang, H. (2009). Kouyi de zhiyehua yu zhiyehua fazhan [Professionalization in interpreting: Current development of interpreting in Shanghai and Jiangsu province]. *Jiefangjun Waiguoyu Xueyuan Xuebao [Journal of PLA University of Foreign Languages], 32*(6), 81-85, 101.

Pan, J., & Wang, H. (2012). Investigating the nature of the semi-natural interpretation: A case study. In M. A. Jiménez Ivars & M. J. Blasco Mayor (Eds.), *Interpreting Brian Harris: Recent developments in translatology* (pp. 77-94). Switzerland: Perter Lang.

Pan J., & Yan, J. X. (2009, March). Individual variables and interpreting errors: A pilot study. Oral presentation at Georgetown University Round Table, Georgetown, US.

Pan, J., & Yan, J. X. (2012). Learner variables and problems perceived by students: An investigation of a college interpreting program in China. *Perspectives: Studies in Translatology, 20*(2), 199-218.

Pellatt, V. (2006). The trouble with numbers: How linguistics, arithmetical and contextual complexity affect the interpretation of numbers. In M. Chai & J. Zhang (Eds.), *Professionalization in interpreting: International experience and developments in China* (pp. 350-365). Shanghai: Shanghai Foreign Language Education Express.

Peng, G. (2009). Using Rhetorical Structure Theory (RST) to describe the development of coherence in interpreting trainees. *Interpreting, 11*(2), 216-243.

Petite, C. (2005). Evidence of repair mechanisms in simultaneous interpreting: A corpus-based analysis. *Interpreting, 7*(1), 27-49.

Pinochi, D. (2009). Simultaneous interpretation of numbers: Comparing German and English to Italian. An experimental study. *The Interpreters' Newsletter*, 14, 33-57.

Pio, S. (2003). The relation between ST delivery rate and quality in simultaneous interpretation. *The Interpreters' Newsletter, 12*, 69-100.

Pippa, S. & Russo, M. (2002). Aptitude and conference interpretation: A proposal for a testing methodology based on paraphrase. In G. Garzone & M. Viezzi (Eds.), *Interpreting in the 21st century* (pp. 245-256). Amsterdam/Philadelphia: John Benjamins.

Pöchhacker F. (2001). Quality assessment in conference and community interpreting, *Meta, 46* (2), 410-425.

Pöchhacker, F. (2004). *Introducing interpreting studies*. London; New York, NY: Routledge.

Pöchhacker, F. (2005). Quality research revisited. *The Interpreters' Newsletter, 13,* 143-166.

Pöchhacker, F. & Shlesinger, M. (2002a). Introduction. In F. Pöchhacker, & M. Shlesinger (Eds.), *The interpreting studies reader* (pp. 1-12). London; New York, NY: Routledge.

Pöchhacker, F. & Shlesinger, M. (Eds.). (2002b). *The interpreting studies reader*. London; New York, NY: Routledge.

Postigo Pinazo, E. (2008). Self-assessment in teaching interpreting. *TTR: Traduction, Terminologie, Rédaction, 21*(1), 173-209.

Pradas Macías, M. (2006). Probing quality criteria in simultaneous interpreting: The role of silent pauses in fluency. *Interpreting, 8*(1), 25-43.

Pym, A. (1992). Translation error analysis and the interface with language teaching. In C. Dollerup, & A. Loddegaard (Eds.), *Teaching translation and interpreting: Training, talent and experience* (pp.279-288). Amsterdam/Philadelphia: John Benjamins Publishing Company.

Pym, A. (1999). Okay, so how are translation norms negotiated? A question for Gideon Toury and Theo Hermans. In C. Schäffner, (Ed.), *Translation and norms* (pp. 106-112). Clevedon: Multilingual Matters Ltd.

Pym, A. (2001). Training language service providers: Local knowledge in institutional contexts. In B. Maia, J. Haller, & M. Ulrych (Eds.), *Training the language services provider for the new millennium : Proceedings of the III Encontros de Tradução de AsTra-FLUP* (pp. 21-30). Porto: Faculdade de Letras, Universidade do Porto.

Pym, A. (2003). Redefining translation competence in an electronic age: In defence of a minimalist approach. *Meta, 48*(4): 481-497.

Pym, A. (2008). On omission in simultaneous interpreting: Risk analysis of a hidden effort. In G. Hansen, A. Chesterman, & H. Gerzymisch-Arbogast (Eds.), *Efforts and models in interpreting: A tribute to Daniel Gile* (pp. 83-105). Amsterdam/Philadelphia: John Benjamins.

Pym, A., Shlesinger, M., & Simeoni, D. (Eds.). (2008). *Beyond descriptive translation studies: Investigations in homage to Gideon Toury*. Amsterdam/Philadelphia: John Benjamins.

Qi. Y. (2008). Cong yingyu zhuanye baji kouyu kouyi kaoshi pingfen de tantao [A brief analysis of the grading criteria of TEM-8 speaking & interpreting test]. *Keji Xinxi [Science & Technology Information]*, (35), 283-284.

Rennert, S. (2010). The impact of fluency on the subjective assessment of interpreting quality. *The Interpreters' Newsletter, 15*, 101-115.

Riccardi, A. (2002a). Evaluation in interpretation: Macrocriteria and microcriteria. In E. Hung (Ed.), *Teaching translation and interpreting 4: Building bridges* (pp.115-126). Amsterdam/Philadelphia: John Benjamins.

Riccardi, A. (2002b). Interpreting research: Descriptive aspects and methodological proposals. In G. Garzone & M. Viezzi (Eds.), *Interpreting in the 21st century* (pp.15-28). Amsterdam/Philadelphia: John Benjamins.

Riccardi, A. (2005). On the evolution of interpreting strategies in simultaneous interpreting. *Meta, 50*(2), 753-767.

Robinson, B. J., López Rodríguez, C. I. & Tercedor Sánchez, M. I. (2006). Self-assessment in translator training. *Perspectives: Studies in Translatology, 14*(2), 115-138.

Rosiers, A., Eyckmans, J., & Bauwens. D. (2011). A story of attitudes and aptitudes? Investigating individual difference variables. *Interpreting, 13*(1), 53-69.

Russo, M. (2011). Aptitude testing over the years. *Interpreting, 13*(1), 5-30.

Rysiewicz, J. (2008). Cognitive profiles of (un)successful FL learners: A cluster analytical study. *The Modern Language Journal, 92*(i), 87-99.

Sainz, M. J. (1994). Systematic feedback in teaching translation. In C. Dollerup & A.

Lindegaard (Eds.), *Teaching translation and interpreting 2: Insights, aims and visions*. Papers from the Second Language International Conference, Elsinore, Denmark 4-6 June 1993 (pp. 133-141). Amsterdam/Philadelphia: John Benjamins.

Sainz, M. J. (1996). Awareness and responsibility: Our students as partners. In In C. Dollerup & V. Appel (Eds.), *Teaching translation and interpreting 3: New horizons* (pp. 137-144). Amsterdam/ Philadelphia, John Benjamins.

Schäffner, C. (1998). The concept of norms in translation studies. *Current Issues in Language and Society, 5* (1&2), 1-9.

Schäffner, C. (1999a). The concept of norms in translation studies. In C. Schäffner, (Ed.), *Translation and norms* (pp. 1-8). Clevedon: Multilingual Matters Ltd.

Schäffner, C. (Ed.). (1999b). *Translation and norms*. Clevedon: Multilingual Matters Ltd.

Schäffner, C. (Ed.). (2004). *Translation research and interpreting research: Traditions, gaps and synergies*. Clevedon: Multilingual Matters Ltd.

Schäffner, C., & Adab, B. (2000). Developing translation competence: Introduction. In C. Schäffner & B. Adab (Eds.), *Developing translation competence* (pp. vii-xvi). Amsterdam/Philadelphia: John Benjamins.

Schjoldager, A. (1995). An exploratory study of translational norms in simultaneous interpreting: Methodological reflections. *Hermes, 14*, 65-87.

Schjoldager. A. (1996). Assessment of simultaneous interpreting. In C. Dollerup & V. Appel (Eds.), *Teaching translation and interpreting 3: New horizons* (pp. 187-195). Amsterdam/ Philadelphia, John Benjamins.

Schweda-Nicholson, N. (1987). Linguistic and extralinguistic aspects of simultaneous interpretation. *Applied Linguistics, 8*(2), 194-205.

Schweda Nicholson, N. (2005). Personality characteristics of interpreter trainees: The Myers-Briggs type indicator. *The Interpreters' Newsletter, 13*, 109-142.

Scott, M. (2008). WordSmith Tools version 5. Liverpool: Lexical Analysis Software.

Searle, J. R. (1969). *Speech acts*. Cambridge: Cambridge University Press.

Seguinot, C. (1990). Interpreting errors in translation. *Meta. 35*(1), 68-73.

Seleskovitch D. (1975): *Langage, langues et mémoire*. Paris: Minard Lettres Modernes.

Seliger, H. W., & Shohamy, E. (1997) *Second language research methods* (4th ed.). Oxford: Oxford University Press.

Selinker, L. (1972/1983). Interlanguage. In B. W. Robinett & J. Schachter (Eds.), *Second language learning: Contrastive analysis, error analysis, and related aspects* (pp. 173-196). Ann Arbor: The University of Michigan Press.

Setton, R. (1997). *A pragmatic theory of simultaneous interpretation*. (Unpublished doctoral dissertation). The Chinese University of Hong Kong, Hong Kong, PRC.

Setton, R. (2009). Interpreting China, interpreting Chinese. *Interpreting, 11*(2), 109-117.

Setton, R. (2011). Corpus-based Interpreting Studies (CIS): Overview and prospects. In A. Kruger, K. Wallmach, & J. Munday (Eds), *Corpus-based translation studies: Research and applications* (pp. 33-75). London/New York: Continuum.

Shakir, A., & Farghal, M. (1997). When the focus of the text is blurred: A textlinguistic approach for analyzing student interpreters' errors. *Meta, 42*(4), 629-640.

Shaw. S. (2011). Cognitive and motivational contributors to aptitude: A study of spoken and signed language interpreting students. *Interpreting, 13*(1), 70-84.

Shaw, S., Grbić, N., & Franklin, K. (2004). Applying language skills to interpretation: Student perspectives from signed and spoken language programs. *Interpreting, 6*(1), 69-100.

Shaw, S., & Hughes, G. (2006). Essential characteristics of sign language interpreting students. *Interpreting, 8*(2), 195-221.

Sherwood, B. (2000). *Features of natural translation in a language testing environment*. (Doctoral dissertation). University of Ottawa, Canada. Retrieved from http://www.ruor.uottawa.ca/en/bitstream/handle/10393/9265/MQ48182.PDF?seq uence=1

Shlesinger, M. (1989). Extending the theory of translation to interpretation: Norms as a case in point. *Target, 1* (1), 111-115.

Shlesinger, M. (1994). Intonation in the production and perception of simultaneous interpretation. In S. Lambert & B. Moser-Mercer (Eds.), *Bridging the gap: Empirical research in simultaneous interpretation* (pp. 225-236). Amsterdam: John Benjamins.

Shlesinger, M. (1997). Quality in Simultaneous Interpreting. In Y. Gambier, D. Gile, & C. Taylor (Eds.), *Conference interpreting: Current trends in research* (pp. 123-131). Amsterdam/ Philadelphia: John Benjamins.

Shlesinger, M. (1998). Corpus-based interpreting studies as an offshoot of corpus-based translation studies. *Meta, 43*(4), 486-493.

Shlesinger, M. (2008). Towards a definition of *Interpretese*: An intermodal, corpus-based study. In G. Hansen, A. Chesterman, & H. Gerzymisch-Arbogast (Eds.), *Efforts and models in interpreting: A tribute to Daniel Gile* (pp. 237-253). Amsterdam/Philadelphia: John Benjamins

Shlesinger, M., & Pöchhacker, F. (2011). Introduction: Aptitude for interpreting. *Interpreting, 13*(1), 1-4.

Smith, M. (2007). Turning language students into translators: What do they need to learn? In D. Kenny & K. Ryou (Eds.), *Across boundaries: International perspectives on Translation Studies* (pp.143-160). Newcastle: Cambridge Scholars Publishing.

Sperberg-McQueen, C. M., & Burnard, L. (2004). Text encoding initiative: The XML version of the TEI guidelines. Retrieved from http://www.tei-c.org/release/doc/tei-p4-doc/html/

Takeda, K. (2010). What interpreting teachers can learn from students: A case study. *Translation & Interpreting: The International Journal for Translation & Interpreting Research, 2*(1), 38-47.

Tarone, E., & Yule, G. (1989). *Focus on the language learner: Approaches to identifying and meeting the needs of second language learners*. Oxford: Oxford University Press.

Taylor, C. (1993). Vocabulary acquisition for student interpreters: Recommendations on the judicious reading of newspapers. *The Interpreters' Newsletter, 5*, 72-76.

Thompson, P. (2005). Spoken Language Corpora. In M. Wynne (Ed.), *Developing linguistic corpora: A guide to good practice* (pp. 59-70). Oxford: Oxbow Books. Available online from http://ahds.ac.uk/linguistic-corpora/

Timarová, S., & Salaets, H. (2011). Learning styles, motivation and cognitive flexibility in interpreter training: Self-selection and aptitude. *Interpreting, 13*(1), 31-52.

Timarová, Š., & Ungoed-Thomas, H. (2008). Admission testing for interpreting courses. *The Interpreter and Translator Trainer, 2*(1), 29-46

Tissi, B. (2000). Silent pauses and disfluencies in simultaneous interpretation: A descriptive analysis. *The Interpreters' Newsletter, 10,* 103-127.

Todoroki, N. (2004). *The development of a self-evaluative framework for simultaneous interpretation.* (Unpublished doctoral dissertation). Temple University, Philadelphia, Pennsylvania, USA.

Toury, G. (1978). The nature and role of norms in literary translation. In J.S. Holmes, J. Lambert, & R. Van den Broeck (Eds.), *Literature and translation: New perspectives in literary studies* (pp. 83-100). Leuven: ACCO (academic publishing company).

Toury, G. (1979). Interlanguage and its manifestation in translation. *Meta, 24*(2), 223-231.

Toury, G. (1995). The nature and role of norms in translation. In G. Toury, *Descriptive translation studies and beyond* (pp. 53-69). Amsterdam/Philadelphia: John Benjamins.

Toury, G. (1998). A handful of paragraphs on "translation" and "norms". *Current Issues in Language and Society, 5* (1&2), 1-31.

Toury, G. (1999). A handful of paragraphs on "translation" and "norms". In C. Schäffner (Ed.), *Translation and norms* (pp. 9-32). Clevedon: Multilingual Matters Ltd.

Tymoczko, M. (1998). Computerized corpora and the future of translation studies. *Meta, 43*(4), 652-660.

Valdés, G., & Angelelli, C. (2003) Interpreters, interpreting, and the study of bilingualism. *Annual Review of Applied Linguistics, 23,* 58-78.

Van Besien, F., & Meuleman, C. (2004). Dealing with speakers' errors and speakers' repairs in simultaneous interpretation: A corpus-based study. *The Translator, 10*(1), 59-81.

Van Besien, F., & Meuleman, C. (2008). Style differences among simultaneous interpreters: A pilot study. *The Translator, 14*(1), 135-155.

Vermunt, J.D.H.M., & Van Rijswijk, F.A.W.M. (1987). *Inventaris Leerstijlen [Inventory of Learning Styles].* Tilburg: K.U. Brabant/Open Universiteit.

Vygotsky, L. (1962). *Thought and language.* (E. Hanfmann & G. Vakar, Eds. & Trans.). New York: The M.I.T. Press. (Original work published 1934).

Waddington, C. (2001). Different methods of evaluating student translations: The question of validity. *Meta, 46*(2), 311-325.

Wang, B. (2007). Kouyi nengli pinggu he yiyuan nengli pinggu: Kouyi de keguan pinggu moshi chutan [From interpreting competence to interpreter competence: A tentative model for objective assessment of interpreting]. *Waiyujie [Foreign Language World]*, (3), 44-50.

Wang, B., & Mu, L. (2009). Interpreter training and research in mainland China: Recent developments. *Interpreting, 11*(2), 267-283.

Wang, E. (2007). Waiyu zhiliang: Woguo kouyi peixun de pingjing [Interpreting quality: the bottleneck for interpreter training in China]. *Chinese Zhongguo Fanyi [Chinese Translators Journal], 28*(1), 58-59.

Wang, T-W. (2010). *A study of error analysis of English-Chinese simultaneous interpretation and corresponding strategies in use.* (Unpublished MA thesis). National Changhua University of Education, Taiwan.

Wang. Y. (2008). *A corpus-based study on the compression strategy in Chinese (Cantonese)-English simultaneous interpreting.* (Unpublished doctoral dissertation). The Chinese University of Hong Kong, Hong Kong, PRC.

Weber, W. K. (1984). *Training translators and conference interpreters.* Orlando: Harcourt Brace Jovanovich.

Wen, Q., & Wang, J. (2009). *Parallel Corpus of Chinese EFL Learners.* Beijing: Foreign Language Teaching and Research Press.

Wen, Q., Wang, L., & Liang, M. (2005). *Spoken and Written English Corpus of Chinese Learners.* Beijing: Foreign Language Teaching and Research Press.

Wenger, E. (2006, June). Communities of practice: A brief introduction. Retrieved from http://www.ewenger.com/theory/

White, C. (2008). Beliefs and good language learners. In C. Griffiths (Ed.), *Lessons from good language learners.* Cambridge: Cambridge University Press.

Williams, S. (1994). The application of SLA research to interpreting. *Perspectives: Studies in Translatology, 2* (1), 19-28.

William, S. (1995). Research on bilingualism and its relevance for interpreting. *Hermes, 15*, 143-154.

Wu, Q. (2010). Benke fanyi zhuanye peiyang moshi de tansuo yu shijian: Tan Beijing waiguoyu daxue fanyi zhuanye jiaoxue linian. *Zhongguo Fanyi [Chinese Translators Journal], 31*(2), 39-43.

Wu, W., & Jiang, Z. (2008). Cong SECOPETS yuliaoku kan zhongguo yingyu xuexizhe cuoyin xianxiang [Mispronunciation of Chinese EFL learners: A corpus-based analysis of the SECOPETS]. In D. Xiao & P. Xiang (Eds), *Jiyu SECOPETS yuliaoku de zhongguoxuexizhe yingyu kouyu yanjiu [Spoken interlanguage Chinese EFL learners: a corpus-based analysis of the SECOPETS]* (pp. 208-221). Shanghai: Shanghai Foreign Language Education Press.

Xiao D., & Xiang, P. (Eds). (2008). *Jiyu SECOPETS yuliaoku de zhongguoxuexizhe yingyu kouyu yanjiu [Spoken interlanguage Chinese EFL learners: a corpus-based analysis of the SECOPETS]*. Shanghai: Shanghai Foreign Language Education Press.

Xinhua Wang [Xinhua Net]. (2008). Hu Jintao zai APEC Gongshang lingdaoren fenghui shang de yanjiang [President Hu Jintao's speech at the APEC CEO Summit on 21 Nov. 2008]. Retrieved from http://tr.hjenglish.com/page/58647/

Xu, J. (2005). Training translators in China. *Meta, 50*(1), 231-249.

Yagi, S. M. (2000). Studying style in simultaneous interpretation. *Meta, 45*(3), 520-547.

Yan, J. X. (1998). *An examination of foreign language classroom anxiety: Its sources and effects in a college English program in China.* (Unpublished doctoral dissertation). University of Texas, Austin, USA.

Yan, J. X., Cheng, P-K, & Shen, Y. (2009). Chinese culture, identity and language anxiety: An investigation of Putonghua learners in Hong Kong. In P. K. Cheng & J. X. Yan (Eds.), *Cultural identity and language anxiety* (pp. 35-56). Guilin: Guangxi Normal University Press.

Yan, J. X., & Detaramani, C. (2008). A comparison of language anxiety in English and Mandarin learning in Hong Kong. *English Teaching & Learning, 32*(1), 45-85.

Yan, J. X., & Horwitz, E. K. (2008). Learners' perceptions of how anxiety interacts with personal and instructional factors to influence their achievement in English: A

qualitative analysis of EFL learners in China. *Language Learning, 58*(1), 151-183.

Yan, J. X., Pan, J., & Wang H. (2010). Learner factors, self-perceived language ability and interpreting learning: An investigation of Hong Kong tertiary interpreting classes. *The Interpreter and Translator Trainer, 4*(2), 173-196.

Yan, J. X., Pan, J., Wu, H., & Wang, Y. (In press). Mapping interpreting studies: The state of the field based on articles in nine major translation and interpreting journals (2000-2010). *Perspectives: Studies in Translatology.*

Yang, C-S. (2005). *Kouyi jiaoxue yanjiu: Lilun yu shijian [Interpretation Teaching and Research: Theory and Practice]*. Beijing: Zhongguo Duiwai Fanyi Chuban Gongsi [China Translation and Publishing Company].

Yang, H., & Wei, N. (2005). *Construction and data analysis of a Chinese learner spoken English corpus*. Shanghai: Shanghai Foreign Language Education Press.

Zannirato, A. (2008). Teaching interpreting and interpreting teaching: A conference interpreter's overview of second language acquisition. In J. Kearns (Ed.), *Translator and interpreter training* (pp. 19-38). London: Continuum.

Zhong, H. (2004). *On translation teaching of undergraduates: An error analysis of C-E translation*. (Unpublished MA thesis). Guangxi Normal University, Guangxi, PRC.

Zhong, W. (Ed.). (2008). *A coursebook for simultaneous interpreting between English and Chinese*. Beijing: Higher Education Press.

Zwischenberger, C. (2010). Quality criteria in simultaneous interpreting: An international vs. a national view. *The Interpreters' Newsletter, 15*, 127-142.

Zwischenberger, C., & Pöchhacker, F. (2010). Survey on quality and role: Conference interpreters' expectations and self-perceptions. Retrieved from http://aiic.net/ViewPage.cfm/page3405.htm

Appendix 1
The Interpreting Learners' Problem Perceptions Survey (*ILPPS*)

Please circle the answer that best matches your feelings about each item.

1. How will you rate the occurrence of the following problems in your interpreting performance? 1 = very few, 2 = few, 3 = neither many nor few, 4 = many, 5 = very many.	
A. Inaccurate pronunciation (when interpreting from Chinese into English)	1 2 3 4 5
B. Failure to produce corresponding word(s)	1 2 3 4 5
C. Grammatical problems	1 2 3 4 5
D. Incomplete sentences	1 2 3 4 5
E. Incorrect rendition of numbers and proper names	1 2 3 4 5
F. Incorrect rendition of words	1 2 3 4 5
G. Omission of information (missing information)	1 2 3 4 5
H. Overtranslation (adding information)	1 2 3 4 5
I. Incomprehensible rendition (overall mistranslation)	1 2 3 4 5
J. Misplaced order of information, causing confusion	1 2 3 4 5
K. Incohesion (lack of connectors, etc.)	1 2 3 4 5
L. Disfluency (silent pauses or unnecessary fillers)	1 2 3 4 5
M. Repetition and self-correction	1 2 3 4 5
N. Unnatural tone (including laughter and extra aspirations)	1 2 3 4 5
O. Other (Please specify):	1 2 3 4 5
2. How will you rate the degree of your worry about the following problems in your interpreting performance? 1 = very little, 2 = little, 3 = neither little nor much, 4 = much, 5 = very much.	
A. Inaccurate pronunciation (when interpreting from Chinese into English)	1 2 3 4 5
B. Failure to produce corresponding word(s)	1 2 3 4 5
C. Grammatical problems	1 2 3 4 5
D. Incomplete sentences	1 2 3 4 5

E. Incorrect rendition of numbers and proper names	1 2 3 4 5
F. Incorrect rendition of words	1 2 3 4 5
G. Omission of information (missing information)	1 2 3 4 5
H. Overtranslation (adding information)	1 2 3 4 5
I. Incomprehensible rendition (overall mistranslation)	1 2 3 4 5
J. Misplaced order of information, causing confusion	1 2 3 4 5
K. Incohesion (lack of connectors, etc.)	1 2 3 4 5
L. Disfluency (silent pauses or unnecessary fillers)	1 2 3 4 5
M. Repetition and self-correction	1 2 3 4 5
N. Unnatural tone (including laughter and extra aspirations)	1 2 3 4 5
O. Other (Please specify):	1 2 3 4 5

3. How will you rate the level of fatalness of the following problems in interpreting?

1 = very low, 2 = low, 3 = neither low nor high, 4 = high, 5 = very high.

A. Inaccurate pronunciation (when interpreting from Chinese into English)	1 2 3 4 5
B. Failure to produce corresponding word(s)	1 2 3 4 5
C. Grammatical problems	1 2 3 4 5
D. Incomplete sentences	1 2 3 4 5
E. Incorrect rendition of numbers and proper names	1 2 3 4 5
F. Incorrect rendition of words	1 2 3 4 5
G. Omission of information (missing information)	1 2 3 4 5
H. Overtranslation (adding information)	1 2 3 4 5
I. Incomprehensible rendition (overall mistranslation)	1 2 3 4 5
J. Misplaced order of information, causing confusion	1 2 3 4 5
K. Incohesion (lack of connectors, etc.)	1 2 3 4 5
L. Disfluency (silent pauses or unnecessary fillers)	1 2 3 4 5
M. Repetition and self-correction	1 2 3 4 5
N. Unnatural tone (including laughter and extra aspirations)	1 2 3 4 5
O. Other (Please specify):	1 2 3 4 5

4. Generally speaking, you will rate the overall occurrence of problems in your interpreting performance as:

1) Very few 2) Few 3) Neither many nor few 4) Many 5) Very many

5. Generally speaking, you will rate the severity level of problems in your interpreting performance as:

1) Very low 2) Low 3) Neither low nor high 4) High 5) Very high

6. In interpreting, you most often encounter problems in the aspect of:

1) Language 2) Meaning 3) Delivery

7. In interpreting, you worry most about problems in the aspect of:

1) Language 2) Meaning 3) Delivery

8. In your opinion, the most fatal problems in interpreting lie in the aspect of:

1) Language 2) Meaning 3) Delivery

学生口译问题自我认识调查问卷

请选择与你情况相符的选项。

1. 你在做口译时出现以下问题的经常性程度为：1 = 非常少，2 = 少，3=既不多也不少，4 = 多，5 = 非常多。	
A. 发音不准（中译英时）	1　2　3　4　5
B. 找不到对应的词语	1　2　3　4　5
C. 翻译的句子有语法问题	1　2　3　4　5
D. 翻译的句子不完整	1　2　3　4　5
E. 翻错数字、人名等	1　2　3　4　5
F. 翻译时用词不当	1　2　3　4　5
G. 翻译时漏掉信息	1　2　3　4　5
H. 翻译时添油加醋	1　2　3　4　5
I. 译文别人听不懂，不知所云	1　2　3　4　5
J 译文意思混乱、前后倒置	1　2　3　4　5
K. 翻译的内容连贯性不够	1　2　3　4　5
L. 磕磕巴巴、停顿太多	1　2　3　4　5
M. 重复表达、自我纠正	1　2　3　4　5
N. 翻译时语调不够自然（包括笑声、不自然的呼吸声）	1　2　3　4　5
O. 其他（请注明）：	1　2　3　4　5
2. 你在做口译时对以下问题的担心程度为：1 = 非常少，2 = 少，3=既不多也不少，4 = 多，5 = 非常多。	
A. 发音不准（中译英时）	1　2　3　4　5
B. 找不到对应的词语	1　2　3　4　5
C. 翻译的句子有语法问题	1　2　3　4　5
D. 翻译的句子不完整	1　2　3　4　5

E. 翻错数字、人名等	1 2 3 4 5
F. 翻译时用词不当	1 2 3 4 5
G. 翻译时漏掉信息	1 2 3 4 5
H. 翻译时添油加醋	1 2 3 4 5
I. 译文别人听不懂，不知所云	1 2 3 4 5
J 译文意思混乱、前后倒置	1 2 3 4 5
K. 翻译的内容连贯性不够	1 2 3 4 5
L. 磕磕巴巴、停顿太多	1 2 3 4 5
M. 重复表达、自我纠正	1 2 3 4 5
N. 翻译时语调不够自然（包括笑声、不自然的呼吸声）	1 2 3 4 5
O. 其他（请注明）：	1 2 3 4 5

3. 你认为以下问题对口译的致命性程度为：1 = 非常不致命， 2 = 不致命，3 = 既不致命也不不致命，4 = 致命， 5 = 非常致命。

A. 发音不准（中译英时）	1 2 3 4 5
B. 找不到对应的词语	1 2 3 4 5
C. 翻译的句子有语法问题	1 2 3 4 5
D. 翻译的句子不完整	1 2 3 4 5
E. 翻错数字、人名等	1 2 3 4 5
F. 翻译时用词不当	1 2 3 4 5
G. 翻译时漏掉信息	1 2 3 4 5
H. 翻译时添油加醋	1 2 3 4 5
I. 译文别人听不懂，不知所云	1 2 3 4 5
J 译文意思混乱、前后倒置	1 2 3 4 5
K. 翻译的内容连贯性不够	1 2 3 4 5
L. 磕磕巴巴、停顿太多	1 2 3 4 5
M. 重复表达、自我纠正	1 2 3 4 5
N. 翻译时语调不够自然（包括笑声、不自然的呼吸声）	1 2 3 4 5

O. 其他（请注明）：	1　2　3　4　5

4. 总体而言，你觉得自己口译中出现的错误数量：

　　1) 非常少 2) 少 3) 不多也不少 4) 多 5) 非常多

5. 总体而言，你觉得自己口译中出现的错误的严重程度为：

　　1) 非常不严重 2) 不太严重 3) 既不严重也不不严重 4) 严重 5) 非常严重

6. 你觉得自己口译中最经常出现的问题在于以下哪个方面：

　　1) 语言 2) 内容 3) 表达

7. 你最担心自己在口译中出现以下哪个方面的问题：

　　1) 语言 2) 内容 3) 表达

8. 你觉得口译中出现以下哪个方面的问题最致命：

　　1) 语言 2) 内容 3) 表达

Appendix 2
The Interpreting Learner Variables Survey (*ILVS*)

There are altogether 59 questions in this questionnaire. Please circle the answer that best matches your feelings about each statement.

I. Demographic Information

01. Name:

02. Gender:

   1) Male   2) Female

03. Age:

04. Year of study:

   1) Year 1 2) Year 2 3) Year 3 4) Year 4 5) Other (Please specify _____)

05. Major:

   1) English 2) Non-English (Please specify _____)

06. Place of longest residence (e.g. your hometown):

07. First Language: 1) Putonghua 2) Other dialects (Please specify _____)

08. Your father works in the field of:

   1) Agriculture 2) Industry 3) Transportation 4) Commerce 5) Healthcare

   6) Education 7) Government 8) Other (Please specify _____)

09. Your father's English level:

   1) Basically zero 2) Poor 3) Average 4) Good

10. Your mother works in the field of:

   1) Agriculture 2) Industry 3) Transportation 4) Commerce 5) Healthcare

   6) Education 7) Government 8) Other (Please specify _____)

11. Your mother's English level:

   1) Basically zero 2) Poor 3) Average 4) Good

II. Language learning

12. Your English score in the Chinese National College Entrance Examination (CNCEE) (on a 100-point scale):

1) Fail (0-60)   2) 60-70 (including 60)   3) 70 -80 (including 70)

4) 80-90 (including 80)   5) 90 -100 (including 90)

(13-17). Your most recent course grades (on a 100-point scale) in:

13. Intensive English Reading:

1) Fail (0-60)   2) 60-70 (including 60)   3) 70 -80 (including 70)

4) 80-90 (including 80)   5) 90 -100 (including 90)

14. Extensive English Reading:

1) Fail (0-60)   2) 60-70 (including 60)   3) 70 -80 (including 70)

4) 80-90 (including 80)   5) 90 -100 (including 90)

15. English Speaking:

1) Fail (0-60)   2) 60-70 (including 60)   3) 70 -80 (including 70)

4) 80-90 (including 80)   5) 90 -100 (including 90)

16. English Listening:

1) Fail (0-60)   2) 60-70 (including 60)   3) 70 -80 (including 70)

4) 80-90 (including 80)   5) 90 -100 (including 90)

17. Other (e.g. CET-4, CET-6, IELTS, TOEFL, etc. Please specify (_____):

1) Fail (0-60)   2) 60-70 (including 60)   3) 70 -80 (including 70)

4) 80-90 (including 80)   5) 90 -100 (including 90)

18. How long have you been studying English?

1) 0-3 years (including 3 years)   2) 3-6 years (including 6 years)

3) 6-9 years (including 9 years)   4) Above 9 years

19. How long have you been speaking Putonghua?

1) 0-3 years (including 3 years)   2) 3-6 years (including 6 years)

3) 6-9 years (including 9 years)   4) Above 9 years

20. How long have you been staying in an English speaking country/region?

1) 0 year   2) 0-1 year (including 1 year)   3) 1-3 years (including 3 years)   4) Above 3 years

(21-28). Your self-evaluation of your **Chinese/Putonghua** proficiency:

21. Chinese in general:

1) Very poor   2) Poor   3) Neither poor nor good   4) Good   5) Very good

22. Putonghua listening:

    1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

23. Putonghua speaking:

    1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

24. Chinese reading:

    1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

25. Chinese writing:

    1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

26. Putonghua pronunciation:

    1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

27. Putonghua/Chinese vocabulary:

    1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

28. Putonghua/Chinese grammar:

    1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

(29-36). Your self-evaluation of your **English** proficiency:

29. English in general:

    1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

30. English listening:

    1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

31. English speaking:

    1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

32. English reading:

    1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

33. English writing:

    1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

34. English pronunciation:

    1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

35. English vocabulary:

    1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

36. English grammar:

    1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

37. How often do you hang out with English native speakers?

1) Never 2) Rarely 3) Sometimes 4) Often 5) Very often

38. How often do you watch English TV programs?

1) Never 2) Rarely 3) Sometimes 4) Often 5) Very often

39. How often do you watch Chinese TV programs?

1) Never 2) Rarely 3) Sometimes 4) Often 5) Very often

40. How often do you read English newspapers or magazines?

1) Never 2) Rarely 3) Sometimes 4) Often 5) Very often

41. How often do you read Chinese newspapers or magazines?

1) Never 2) Rarely 3) Sometimes 4) Often 5) Very often

42. How often do you write diaries or blogs in English?

1) Never 2) Rarely 3) Sometimes 4) Often 5) Very often

43. How often do you write diaries or blogs in Chinese?

1) Never 2) Rarely 3) Sometimes 4) Often 5) Very often

III. Interpreting learning

44. How long have you been studying interpreting?

1) 0-1 year (including 1 year) 2) 1-2 years (including 2 years)

3) 2-3 years (including 3 years) 4) Above 3 years

45. How many hours do you spend on interpreting classes each week?

1) 0-1 hours/week

2) 1-7 hours/week (including 1 hour)

3) 7-14 hours/week (including 14 hours)

4) Above 14 hours/week (including 14 hours)

46. How many hours do you spend practising interpreting each day after class?

1) 0 hour 2) 0-1 hour (including 1 hour) 3) 1-2 hours (including 2 hours)

4) Above 2 hours

47. Why do you attend interpreting training?

1) I want to improve my English language proficiency.

2) The training will be helpful for my future job hunting (although I am not becoming an interpreter).

3) I want to become an interpreter.

4) Other (Please specify):

48. Your knowledge of interpreting is:

1) Very little 2) Little 3) Average 4) Much 5) Very much

49. Your interest in interpreting is:

1) Very little 2) Little 3) Average 4) Much 5) Very much

50. Your confidence in doing interpreting is:

1) Very little 2) Little 3) Average 4) Much 5) Very much

51. Your interest in keeping updated with the current affairs is:

1) Very little 2) Little 3) Average 4) Much 5) Very much

52. Your interest in gaining knowledge in the field of finance is:

1) Very little 2) Little 3) Average 4) Much 5) Very much

53. Your interest in gaining knowledge about different cultures is:

1) Very little 2) Little 3) Average 4) Much 5) Very much

54. Your ability to handle multiple tasks is.

1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

55. Your short-term memory is:

1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

56. Your note-taking ability is:

1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

57. Your **overall** interpreting ability is:

1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

58. Your ability to interpret from English into Chinese is:

1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

59. Your ability to interpret from Chinese into English is:

1) Very poor 2) Poor 3) Neither poor nor good 4) Good 5) Very good

Thank you for your participation!

口译学生学习者因素调查问卷

本问卷共 59 个问题，请填写相关信息并选择与你的情况相符的选项。为保证向您提供正确而恰当的反馈，请尽量完整填写本问卷。

一．个人信息

01. 姓名*：_____（*可提供英语名字或代号）

02. 性别：1) 男　2) 女

03. 年龄：_____岁

04. 年级：

　　1) 大一 2) 大二 3) 大三 4) 大四 5) 其他（请注明_____）

05. 专业：

　　1) 英语 2) 非英语（请注明_____）

06. 最长居住地（如家乡）：

07. 你的第一语言：1) 普通话 2) 其他方言（请注明何种方言_____）

08. 父亲工作领域：

　　1) 农业 2) 工业 3) 运输业 4) 商业

　　5) 医疗卫生　6) 教育 7) 公务员 8) 其他（请注明_____）

09. 父亲英语程度：1) 不懂 2) 懂一点 3) 一般 4) 很好

10. 母亲工作领域：

　　1) 农业 2) 工业 3) 运输业 4) 商业

　　5) 医疗卫生　6) 教育 7) 公务员 8) 其他（请注明_____）

11. 母亲英语程度：1) 不懂 2) 懂一点 3) 一般 4) 很好

二．语言学习

12. 你的高考英语成绩（按百分比）：

　　1) 不及格 (0-60 分)　2) 60-70 分 (包括 60 分) 3) 70 -80 分 (包括 70 分)

　　4) 80-90 分 (包括 80 分) 5) 90 -100 分 (包括 90 分)

(13-17) 你最近一次英语考试成绩（按百分比）：

13. 精读：1) 不及格 (0-60 分) 2) 60-70 分 (包括 60 分) 3) 70 -80 分 (包括 70 分)

    4) 80-90 分 (包括 80 分) 5) 90 -100 分 (包括 90 分)

14. 泛读：1) 不及格 (0-60 分) 2) 60-70 分 (包括 60 分) 3) 70 -80 分 (包括 70 分)

    4) 80-90 分 (包括 80 分) 5) 90 -100 分 (包括 90 分)

15. 口语：1) 不及格 (0-60 分) 2) 60-70 分 (包括 60 分) 3) 70 -80 分 (包括 70 分)

    4) 80-90 分 (包括 80 分) 5) 90 -100 分 (包括 90 分)

16. 听力：1) 不及格 (0-60 分) 2) 60-70 分 (包括 60 分) 3) 70 -80 分 (包括 70 分)

    4) 80-90 分 (包括 80 分) 5) 90 -100 分 (包括 90 分)

17. 其他（如四六级、雅思、托福，请注明考试名称＿＿＿＿＿＿＿ ）：

    1) 不及格 (0-60 分) 2) 60-70 分 (包括 60 分) 3) 70 -80 分 (包括 70 分)

    4) 80-90 分 (包括 80 分) 5) 90 -100 分 (包括 90 分)

18. 你学习英语的时长：

    1) 0-3 年(包括 3 年) 2) 3 年-6 年(包括 6 年) 3) 6 年-9 年(包括 9 年) 4) 9 年以上

19. 你学习普通话的时长：

    1) 0-3 年(包括 3 年) 2) 3 年-6 年(包括 6 年) 3) 6 年-9 年(包括 9 年) 4) 9 年以上

20. 你在英语为母语的国家/地区停留/居住的时间：

    1) 0 年 2) 0~1 年（包括 1 年） 3) 1 年~3 年（包括 3 年） 4) 3 年以上

(21-28) 对自己**中文/普通话**的评价：

21. 中文综合能力：

    1) 很差 2) 差 3) 不好也不差 4) 好 5) 很好

22. 普通话听力能力：

    1) 很差 2) 差 3) 不好也不差 4) 好 5) 很好

23. 普通话会话能力：

    1) 很差 2) 差 3) 不好也不差 4) 好 5) 很好

24. 中文阅读能力：

    1) 很差 2) 差 3) 不好也不差 4) 好 5) 很好

25. 中文写作能力：

    1) 很差 2) 差 3) 不好也不差 4) 好 5) 很好

26. 普通话发音：

    1) 很差 2) 差 3) 不好也不差 4) 好 5) 很好

27. 中文/普通话词汇：

    1) 很差 2) 差 3) 不好也不差 4) 好 5) 很好

28. 中文/普通话语法：

    1) 很差 2) 差 3) 不好也不差 4) 好 5) 很好

(29-36) 对自己**英语**的评价：

29. 英语综合能力：

    1) 很差 2) 差 3) 不好也不差 4) 好 5) 很好

30. 英语听力能力：

    1) 很差 2) 差 3) 不好也不差 4) 好 5) 很好

31. 英语会话能力：

    1) 很差 2) 差 3) 不好也不差 4) 好 5) 很好

32. 英语阅读能力：

    1) 很差 2) 差 3) 不好也不差 4) 好 5) 很好

33. 英语写作能力：

    1) 很差 2) 差 3) 不好也不差 4) 好 5) 很好

34. 英语发音：

    1) 很差 2) 差 3) 不好也不差 4) 好 5) 很好

35. 英语词汇：

    1) 很差 2) 差 3) 不好也不差 4) 好 5) 很好

36. 英语语法：

    1) 很差 2) 差 3) 不好也不差 4) 好 5) 很好

37. 英文课之余，你和以英语为母语的人接触的频率为：

    1) 从不曾 2) 很少 3) 有时候 4) 经常 5) 极常

38. 你看英文电视节目的频率为：

   1) 从不曾 2) 很少 3) 有时候 4) 经常 5) 极常

39. 你看中文电视节目的频率为：

   1) 从不曾 2) 很少 3) 有时候 4) 经常 5) 极常

40. 你阅读英文报章或杂志的频率为：

   1) 从不曾 2) 很少 3) 有时候 4) 经常 5) 极常

41. 你阅读中文报章或杂志的频率为：

   1) 从不曾 2) 很少 3) 有时候 4) 经常 5) 极常

42. 你用英文写日记(或 blog)的频率为：

   1) 从不曾 2) 很少 3) 有时候 4) 经常 5) 极常

43. 你用中文写日记(或 blog)的频率为：

   1) 从不曾 2) 很少 3) 有时候 4) 经常 5) 极常

三． 口译学习

44. 你参加的口译学习的时长：

   1) 0~1 年(包括 1 年) 2) 1 年~2 年(包括 2 年) 3) 2 年~3 年(包括 3 年) 4) 3 年以上

45. 你参加的口译培训/课程的强度：

   1) 每周 0-1 小时 2) 每周 1-7 小时(包括 1 小时)

   3) 每周 7-14 小时(包括 7 小时) 4) 每周 14 小时以上(包括 14 小时)

46. 你平均每天进行口译课外自我练习的时间：

   1) 0 小时 2) 0-1 小时(包括 1 小时) 3) 1-2 小时(包括 2 小时) 4) 2 小时以上

47. 你为什么参加口译培训:

   1) 想提高英语水平

   2) 虽然不一定想成为口译员，但觉得对自己找工作有帮助

   3) 想成为口译员

   4) 其他 (请注明):

48. 你对口译:

   1) 非常不了解 2) 比较不了解 3) 一般 4) 比较了解 5) 非常了解

49. 你对口译：

　　1) 非常不喜欢　2) 比较不喜欢　3) 一般　4) 比较喜欢　5) 非常喜欢

50. 你对做口译：

　　1) 非常没信心　2) 比较没信心　3) 一般　4) 比较有信心　5) 非常有信心

51. 你对时事消息：

　　1) 非常不关心　2) 不太关心　3) 一般　4) 比较关心　5) 非常关心

52. 你对金融领域的知识：

　　1) 非常不关心　2) 不太关心　3) 一般　4) 比较关心　5) 非常关心

53. 你对各国的文化知识：

　　1) 非常不关心　2) 不太关心　3) 一般　4) 比较关心　5) 非常关心

54. 你觉得你同时处理多项任务的能力：

　　1) 非常差　2) 差　3) 不好也不差　4) 好　5) 非常好

55. 你觉得自己的短时记忆能力：

　　1) 非常差　2) 差　3) 不好也不差　4) 好　5) 非常好

56. 你觉得自己的口译笔记能力：

　　1) 非常差　2) 差　3) 不好也不差　4) 好　5) 非常好

57. 你认为自己口译**整体**能力：

　　1) 非常差　2) 差　3) 不好也不差　4) 好　5) 非常好

58. 你认为自己**英译中**口译的能力：

　　1) 非常差　2) 差　3) 不好也不差　4) 好　5) 非常好

59. 你认为自己**中译英**口译的能力：

　　1) 非常差　2) 差　3) 不好也不差　4) 好　5) 非常好

感谢您填写本次问卷！

Appendix 3

The Interpreting Learners' Problem Perceptions Survey (Post-Test Version)

(ILPPS-PTV)

1. What do you think about your performance in the test?

   1) Very poor 2) Poor 3) Neither good nor poor 4) Good 5) Very good

2. How will you rate the occurrence of the following problems in your **overall performance** in the test? 1= very few, 2 = few, 3 = neither many nor few, 4=many, 5= very many	
A. Inaccurate pronunciation (when interpreting from Chinese into English)	1 2 3 4 5
B. Failure to produce corresponding word(s)	1 2 3 4 5
C. Grammatical problems	1 2 3 4 5
D. Incomplete sentences	1 2 3 4 5
E. Incorrect rendition of numbers and proper names	1 2 3 4 5
F. Incorrect rendition of words	1 2 3 4 5
G. Omission of information (missing information)	1 2 3 4 5
H. Overtranslation (adding information)	1 2 3 4 5
I. Incomprehensible rendition (overall mistranslation)	1 2 3 4 5
J. Misplaced order of information, causing confusion	1 2 3 4 5
K. Incohesion (lack of connectors, etc.)	1 2 3 4 5
L. Disfluency (silent pauses or unnecessary fillers)	1 2 3 4 5
M. Repetition and self-correction	1 2 3 4 5
N. Unnatural tone (including laughter and extra aspirations)	1 2 3 4 5
O. Other (Please specify):	1 2 3 4 5
3. How will you rate the occurrence of the following problems in your performance **in the first section (English to Chinese)** of the test? 1= very few, 2 = few, 3 = neither many nor few, 4=many, 5= very many	
A. Inaccurate pronunciation (when interpreting from Chinese into English)	1 2 3 4 5

B. Failure to produce corresponding word(s)	1 2 3 4 5
C. Grammatical problems	1 2 3 4 5
D. Incomplete sentences	1 2 3 4 5
E. Incorrect rendition of numbers and proper names	1 2 3 4 5
F. Incorrect rendition of words	1 2 3 4 5
G. Omission of information (missing information)	1 2 3 4 5
H. Overtranslation (adding information)	1 2 3 4 5
I. Incomprehensible rendition (overall mistranslation)	1 2 3 4 5
J. Misplaced order of information, causing confusion	1 2 3 4 5
K. Incohesion (lack of connectors, etc.)	1 2 3 4 5
L. Disfluency (silent pauses or unnecessary fillers)	1 2 3 4 5
M. Repetition and self-correction	1 2 3 4 5
N. Unnatural tone (including laughter and extra aspirations)	1 2 3 4 5
O. Other (Please specify):	1 2 3 4 5
4. How will you rate the occurrence of the following problems in your performance **in the second section (Chinese to English)** of the test? 1= very few, 2 = few, 3 = neither many nor few, 4=many, 5= very many	
A. Inaccurate pronunciation (when interpreting from Chinese into English)	1 2 3 4 5
B. Failure to produce corresponding word(s)	1 2 3 4 5
C. Grammatical problems	1 2 3 4 5
D. Incomplete sentences	1 2 3 4 5
E. Incorrect rendition of numbers and proper names	1 2 3 4 5
F. Incorrect rendition of words	1 2 3 4 5
G. Omission of information (missing information)	1 2 3 4 5
H. Overtranslation (adding information)	1 2 3 4 5
I. Incomprehensible rendition (overall mistranslation)	1 2 3 4 5
J. Misplaced order of information, causing confusion	1 2 3 4 5
K. Incohesion (lack of connectors, etc.)	1 2 3 4 5
L. Disfluency (silent pauses or unnecessary fillers)	1 2 3 4 5

M. Repetition and self-correction	1 2 3 4 5
N. Unnatural tone (including laughter and extra aspirations)	1 2 3 4 5
O. Other (Please specify):	1 2 3 4 5

口译学生测试后问题自我认识调查问卷

1. 你觉得本次测试你做得: 1) 很差 2) 差 3) 不好也不差 4) 好 5) 很好

2. 你觉得自己本次口译测试中出现下列问题的**整体情况**为：1=很少, 2=少, 3=不多也不少, 4=多, 5=很多	
A. 发音不准（中译英时）	1 2 3 4 5
B. 找不到对应的词语	1 2 3 4 5
C. 翻译的句子有语法问题	1 2 3 4 5
D. 翻译的句子不完整	1 2 3 4 5
E. 翻错数字、人名等	1 2 3 4 5
F. 翻译时用词不当	1 2 3 4 5
G. 翻译时漏掉信息	1 2 3 4 5
H. 翻译时添油加醋	1 2 3 4 5
I. 译文别人听不懂，不知所云	1 2 3 4 5
J 译文意思混乱、前后倒置	1 2 3 4 5
K. 翻译的内容连贯性不够	1 2 3 4 5
L. 磕磕巴巴、停顿太多	1 2 3 4 5
M. 重复表达、自我纠正	1 2 3 4 5
N. 翻译时语调不够自然 （包括笑声、不自然的呼吸声）	1 2 3 4 5
O. 其他（请注明）：	1 2 3 4 5
3. 你在该次口译测试**第一部分英译中**中出现下列问题的情况为：1=很少, 2=少, 3=不多也不少, 4=多, 5=很多	
A. 发音不准（中译英时）	1 2 3 4 5
B. 找不到对应的词语	1 2 3 4 5
C. 翻译的句子有语法问题	1 2 3 4 5
D. 翻译的句子不完整	1 2 3 4 5
E. 翻错数字、人名等	1 2 3 4 5

F. 翻译时用词不当	1 2 3 4 5
G. 翻译时漏掉信息	1 2 3 4 5
H. 翻译时添油加醋	1 2 3 4 5
I. 译文别人听不懂，不知所云	1 2 3 4 5
J 译文意思混乱、前后倒置	1 2 3 4 5
K. 翻译的内容连贯性不够	1 2 3 4 5
L. 磕磕巴巴、停顿太多	1 2 3 4 5
M. 重复表达、自我纠正	1 2 3 4 5
N. 翻译时语调不够自然（包括笑声、不自然的呼吸声）	1 2 3 4 5
O. 其他（请注明）：	1 2 3 4 5
4. 你在该次口译测试**第二部分中译英**中出现下列问题的情况为：1=很少, 2=少, 3=不多也不少, 4=多, 5=很多	
A. 发音不准（中译英时）	1 2 3 4 5
B. 找不到对应的词语	1 2 3 4 5
C. 翻译的句子有语法问题	1 2 3 4 5
D. 翻译的句子不完整	1 2 3 4 5
E. 翻错数字、人名等	1 2 3 4 5
F. 翻译时用词不当	1 2 3 4 5
G. 翻译时漏掉信息	1 2 3 4 5
H. 翻译时添油加醋	1 2 3 4 5
I. 译文别人听不懂，不知所云	1 2 3 4 5
J 译文意思混乱、前后倒置	1 2 3 4 5
K. 翻译的内容连贯性不够	1 2 3 4 5
L. 磕磕巴巴、停顿太多	1 2 3 4 5
M. 重复表达、自我纠正	1 2 3 4 5
N. 翻译时语调不够自然（包括笑声、不自然的呼吸声）	1 2 3 4 5
O. 其他（请注明）：	1 2 3 4 5

Appendix 4

The Interpreting Learning Problem Perceptions Survey (Teacher Version)

(*ILPPS-TV*)

01. Name:

02. Gender: 1) Male 2) Female

03. Age:

04. Interpreting teaching experience:

    1) Below 1 year (including 1 year) 2) 1-2 years (including 2 years)

    3) 2-3 years (including 3 years) 4) 3-4 years (including 4 years) 5) Above 4 years

05. Which of the following often occur(s) in your students' interpreting performance (multiple choices are allowed)?

    1) Inaccurate pronunciation (when interpreting from Chinese into English)

    2) Failure to produce corresponding word(s)

    3) Grammatical problems

    4) Incomplete sentences

    5) Incorrect rendition of numbers and proper names

    6) Incorrect rendition of words

    7) Omission of information (missing information)

    8) Overtranslation (adding information)

    9) Incomprehensible rendition (overall mistranslation)

    10) Misplaced order of information, causing confusion

    11) Incohesion (lack of connectors, etc.)

    12) Disfluency (silent pauses or unnecessary fillers)

    13) Repetition and self-correction

    14) Unnatural tone (including laughter and extra aspirations)

    15) Other (Please specify):

06. In your opinion, which of the following is/are fatal in interpreting (multiple choices are allowed):

    1) Inaccurate pronunciation (when interpreting from Chinese into English)

    2) Failure to produce corresponding word(s)

3) Grammatical problems

4) Incomplete sentences

5) Incorrect rendition of numbers and proper names

6) Incorrect rendition of words

7) Omission of information (missing information)

8) Overtranslation (adding information)

9) Incomprehensible rendition (overall mistranslation)

10) Misplaced order of information, causing confusion

11) Incohesion (lack of connectors, etc.)

12) Disfluency (silent pauses or unnecessary fillers)

13) Repetition and self-correction

14) Unnatural tone (including laughter and extra aspirations)

15) Other (Please specify):

07. In your opinion, which of the following factors is/are related to students' problems in their interpreting performance (multiple choices are allowed):

1) Student's age

2) Student's family background

3) Whether or not the student speaks a dialect other than Putonghua

4) Student's language competence

5) How long the student has been studying interpreting

6) Student's attitude towards interpreting

7) Student's multi-task ability

8) Student's interest in gaining knowledge in different fields (e.g. finance, current affairs, culture, etc.)

9) Student's mastery of interpreting skills

10) Other (Please specify):

口译教师对学生的问题认识调查问卷

01. 姓名：

02. 性别： 1) 男　2) 女

03. 年龄：_____岁

04. 口译教学经验：

1)1 年以下（包括 1 年）　2) 1-2 年（包括 2 年）　3) 2-3 年（包括 3 年）

4) 3-4 年（包括 4）　5) 4 年以上

05. 你发现平时学生的口译训练／考试中经常出现什么问题？（可多选）

1) 发音不准（中译英时）

2) 找不到对应的词语

3) 翻译的句子有语法问题

4) 翻译的句子不完整

5) 翻错数字、人名等

6) 翻译时用词不当

7) 翻译时漏掉信息

8) 翻译时添油加醋

9) 译文别人听不懂，不知所云

10) 译文意思混乱、前后倒置

11) 翻译的内容连贯性不够

12) 磕磕巴巴、停顿太多

13) 重复表达、自我纠正

14) 翻译时语调不够自然（包括笑声、不自然的呼吸声）

15) 其他（请注明）：

06. 你认为口译中最致命的问题是（可多选）：

1) 发音不准（中译英时）

2) 找不到对应的词语

3) 翻译的句子有语法问题

4) 翻译的句子不完整

5) 翻错数字、人名等

6) 翻译时用词不当

7) 翻译时漏掉信息

8) 翻译时添油加醋

9) 译文别人听不懂，不知所云

10) 译文意思混乱、前后倒置

11) 翻译的内容连贯性不够

12) 磕磕巴巴、停顿太多

13) 重复表达、自我纠正

14) 翻译时语调不够自然（包括笑声、不自然的呼吸声）

15) 其他（请注明）：

07. 你觉得与学生口译中出现的问题相关的因素包括（可多选）：

1) 学生的年龄

2) 学生的家庭背景

3) 是否说方言

4) 学生的语言能力

5) 口译学习的时间长

6) 对口译的态度

7) 同时处理多项任务的能力

8) 对其他知识（如金融、时事、各国文化等）的感兴趣程度

9) 口译技巧的掌握程度

10) 其他（请注明）：

Appendix 5

Interview Protocol (Student Interviews)

(This is only a guide for possible questions that can be explored in the interview. The actual wording and ordering of questions might differ.)

I. Introduction to the project and the investigator & warm-up

II. About interpreting

1. What is your understanding of interpreting? What is "perfect" interpreting like?

2. Why did you choose to learn interpreting? What do you think the learning of interpreting might have to do with your future plan/career?

III. Problems in interpreting

1. If you could define problems in interpreting, what would you include?

2. What problems do you have in your interpreting learning? Why do you have such problems? What might be the causes for these problems?

3. What problems do you worry about in your interpreting learning? Why do you worry about them? What might be the causes for these problems?

4. What problems do you consider fatal in interpreting? Why do you think they are fatal? What might be the causes for these problems?

Follow-up questions:

1) What might be the differences between you and the other students as far as these problems are concerned? Why?

2) What differences might there be between interpreting from Chinese into English and that from English into Chinese? Among different subjects?

5. Which aspect(s) has (have) you improved most in your interpreting performance during your learning of interpreting? What did you do to achieve such improvement(s)?

6. What do you think about the following in interpreting: pronunciation, vocabulary, grammar, numbers, proper names, the omission or addition of information, coherence and cohesion, logic order, disfluency, repetition, self-repair, tone, etc.?

学生访谈问题草案

I. 研究者自我介绍和对项目情况进行简介

II. 关于口译

1. 你是如何理解口译的？你认为"完美无缺"的口译是怎样的？

2. 你为什么学习口译？你认为口译学习对你将来的计划或工作有什么帮助？

III. 口译中的问题

1. 如果你可以定义口译中的问题，你将如何定义？

2. 你在口译学习中有哪些问题？为什么会有这些问题？可能造成这些问题的原因是什么？

3. 你在口译学习中最担心的问题有哪些？为什么会担心这些问题？可能造成这些问题的原因是什么？

4. 你认为口译中致命性的问题有哪些？为什么它们是致命性的？可能造成这些问题的原因是什么？

   可继续问：

   1) 你和其他同学在这些问题上有什么不同？为什么会不同呢？

   2) 这些问题在中译英和英译中的时候有什么区别？口译内容不同的时候呢？

5. 你在口译学习中改善最多的是哪（些）方面？你如何改善这个（些）问题的？

6. 你对于口译中的这些因素有什么看法：发音、词汇、语法、数字、专有名词、信息的增减、衔接与连贯、前后逻辑顺序、磕磕巴巴、重复、自我纠正、语调，等等？

Appendix 6

Interview Protocol (Teacher Interviews)

(This is only a guide for possible questions that can be explored in the interview. The actual wording and ordering of questions might differ.)

I. Introduction to the project and the investigator

II. About interpreting

What is your understanding of interpreting? What is "perfect" interpreting like?

III. Problems in interpreting

1. If you could define problems in interpreting, what would you include?

2. What problems do often find in your students' interpreting performance? Why do you think they have such problems? What might be the causes for these problems?

3. What problems do you consider fatal in interpreting? Why do you think they are fatal? What might be the causes for these problems?

   Follow-up questions:

   1) What might be the differences between individual students as far as these problems are concerned? What might be the causes for such differences?

   2) What differences might there be in students' performance between interpreting from Chinese into English and that from English into Chinese? Among different subjects?

5. Which aspect(s) has (have) your students improved most in their interpreting performance during their learning of interpreting? What do you think might be the reason for such improvement(s)?

6. What do you think about the following in interpreting: pronunciation, vocabulary, grammar, numbers, proper names, the omission or addition of information, coherence and cohesion, logic order, disfluency, repetition, self-repair, tone, etc.?

7. What do you think about the following factors in interpreting learning: age, family background, dialect, language proficiency, length of study, attitude towards interpreting, multi-task ability, interest in absorbing knowledge in different fields (e.g. finance, current affairs, culture, etc.), mastery of interpreting skills, etc.?

教师访谈问题草案

I. 研究者自我介绍和对项目情况进行简介

II. 关于口译

你是如何理解口译的？你认为"完美无缺"的口译是怎样的？

III. 口译中的问题

1. 如果你可以定义口译中的问题，你将如何定义？

2. 你的学生在口译学习中有哪些问题？为什么会有这些问题？可能造成这些问题的原因是什么？

3. 你认为口译中致命性的问题有哪些？为什么它们是致命性的？可能造成这些问题的原因是什么？

   可继续问：

   1) 不同的同学在这些问题的表现上有什么不同？为什么会有这些不同？

   2) 学生的这些问题在中译英和英译中的时候有什么区别？口译内容不同的时候呢？

5. 学生在口译学习中改善最多的是哪（些）方面？你认为是那些原因导致他们改善这个/些问题的？

6. 你对于口译中的这些因素有什么看法：发音、词汇、语法、数字、专有名词、信息的增减、衔接与连贯、前后逻辑顺序、磕磕巴巴、重复、自我纠正、语调，等等？

7. 你对口译学习中这些因素有什么看法：学生的年龄、家庭背景、是否说方言、语言能力、口译学习的时长、对口译的态度、同时处理多项任务的能力、对其他知识（如金融、时事、各国文化等）的感兴趣程度、口译技巧的掌握程度，等等？

Appendix 7
Interview Protocol (Post-Test)

(This is only a guide for possible questions that can be explored in the interview. The actual wording and ordering of questions might differ.)

1. How do you think about your performance in the test?

2. What do you think is your greatest problem in the test?

3. What might be the reason(s) for the problem(s)?

学生测试后访谈问题草案

1. 你觉得本次测试中你的表现如何？

2. 你觉得本次测试中你最大的问题在于什么？

3. 为什么会导致这个（些）问题？

Appendix 8

The Elicitation Test

Instructions: The test is composed of two parts. In Part One, you interpret from English into Chinese. In Part Two, you interpret from Chinese into English. There are two texts in each part, and two paragraphs in each text. Please start interpreting after each paragraph.

本次测试共分两部分。第一部分为英译中，第二部分为中译英。其中每部分各有两小篇文章，每小篇文章又分为两小段。请大家听完每小段之后开始翻译。

Part One: Section 1

Ladies and Gentlemen, good morning. It gives me great pleasure to join you at the Opening Ceremony of the 2nd Asia-Pacific Educational Research Conference. First of all, I would like to extend a very warm welcome to the delegates from the more than 30 countries of the Asia-Pacific region.

I hope that beyond attending this conference, you can also spend some time discovering Singapore, our food and our people. Commonly known as the "Food Paradise", Singapore is a great country and we hope you enjoy your stay here.

Part One: Section 2

Good evening, ladies and gentleman. Today I would like to talk with you about the future of newspapers. I know today some industries are facing great competition from the internet. These industries include banks, retailers, phone companies, and even newspapers. Some people believe that with the influence of the internet, newspapers will die out in the near future. But I have a very different view.

I believe that newspapers will reach new heights. In the 21st century, people are hungrier for information than ever before. For example, today the Times of London is read by a global audience of 26 million people each month. That is an audience larger than the entire population of Australia. Therefore, we have good reason to believe that newspapers will never die out in the future.

Part Two: Section 1

尊敬的主席先生，女士们，先生们，朋友们：今天，很高兴同各位工商领导人再次相会，就应对国际金融危机和中国发展问题同大家交换看法。

2008 年对于中国是极不平凡的一年。中国人民成功抗击了严重低温雨雪冰冻灾害、四川汶川特大地震灾害，成功举办了北京奥运会。借此机会，我谨代表中国政府和人民，向为我们提供支持和帮助的各国各地区工商界朋友们，表示诚挚的谢意！

Part Two: Section 2

现在我们来谈谈有关香港大学毕业生的问题。近年不少人认为，香港大学毕业生水准普遍下降，竞争力明显不及来自内地和从外国回流的毕业生：他们的普通话水平比内地毕业生逊色，而英语水平与外国回流学生相比又相形见绌。

近年来，香港大学录取内地学生人数持续上升。例如，2008 年度，香港城市大学 20,000 多名学生中，有接近 1,500 名来自内地，占 7.3%。而在 2003 年，只有大约 300 名内地生。有人担心这将对本地毕业生造成严重威胁。

Appendix 9
Transcripts of the Original Speeches and Reference Translations of the Elicitation Test (Part II)

Text 1
Reference Chinese text:

携手共同努力　推动经济发展

——在 2008 年亚太经合组织工商领导人峰会上的演讲

（2008 年 11 月 21 日，秘鲁利马）

中华人民共和国主席　胡锦涛

尊敬的主席先生，女士们，先生们，朋友们：

今天，很高兴同各位工商领导人再次相会，就应对国际金融危机和中国发展问题同大家交换看法。

2008 年对于中国是极不平凡的一年。中国人民成功抗击了严重低温雨雪冰冻灾害、四川汶川特大地震灾害，成功举办了北京奥运会、残奥会。借此机会，我谨代表中国政府和人民，向为我们抗击特大自然灾害和举办北京奥运会、残奥会提供支持和帮助的各国各地区工商界朋友们，表示诚挚的谢意！

女士们、先生们、朋友们！

当前，国际金融危机仍在蔓延，已从局部发展到全球，从发达国家传导到新兴市场国家，从金融领域扩散到实体经济领域，给世界各国经济发展和人民生活带来了严重影响，形势十分严峻。有效应对国际金融危机，维护国际金融稳定，促进世界经济发展，事关全球发展前景，事关各国切身利益。日前，二十国集团领导人金融市场和世界经济峰会在华盛顿举行，会议就国际社会合作应对国际金融危机、促进世界经济发展、改革国际金融体系达成广泛共识。在这个关键时刻，世界各国应该增强信心、加强协调、密切合作，迅速采取有效措施，包括采取一切必要的财政和货币手段，遏制金融危机扩散和蔓延，尽快稳定国际金融市场，尽量减轻这场金融危机对实体经济的损害，促进世界经济增长，维护世界各国人民共同利益。

中国欢迎有关国家为应对这场金融危机采取的积极措施，希望能够尽快取得成效。中国在力所能及的范围内为应对国际金融危机作出了重大努力，采取了一系列举措，包括确保国内银行体系稳定、向金融市场和金融机构提供必要的流动性支持、密切同其他国家宏观经济政策的协调和配合，等等。中国将本着负责任的态度，继续同国际社会一道，加强合作，努力维护国际金融市场稳定。

国际社会应该认真总结这场金融危机的教训，在所有利益攸关方充分协商的基础上，把握建立公平、公正、包容、有序的国际金融新秩序的方向，坚持全面性、均衡性、渐进性、实效性的原则，对国际金融体系进行必要的改革，创造有利于全球经济健康发展的制度环境。要加强国际金融监管合作，增强预警和监管能力；增强国际金融机构防范金融风险的全球责任，提高发展中国家在国际金融机构中的代表性和发言权；鼓励区域金融合作，增强区域流动性互助能力；稳步推进国际货币体系多元化，增强现有国际货币体系的有效性；各类金融机构和中介机构应该加强风险管理、提高透明度。

中国将继续推动建设可持续发展的世界经济体系、包容有序的国际金融体系、公正合理的国际贸易体系、公平有效的全球发展体系，坚持在实现本国发展的同时兼顾合作伙伴特别是发展中国家正当关切，支持国际社会帮助发展中国家增强自主发展能力、改善民生，支持推进贸易和投资自由化便利化，支持各国共同维护世界经济安全，促进各国共同发展繁荣。

女士们、先生们、朋友们！

当前，人们十分关注中国发展前景，工商界朋友们特别关心新形势下中国经济社会走向。在这里，我愿就中国未来发展向大家作一个扼要介绍。

今年是中国改革开放 30 周年。30 年的改革开放，给中国经济社会发展带来了前所未有的巨大成就，极大地提高了中国的经济实力、综合国力、人民生活水平。同时，我们也清醒地认识到，中国仍然是世界上最大的发展中国家，实现现代化还有很长的路要走。在前进道路上，中国将坚持贯彻落实以人为本、全面协调可持续发展的科学发展观，毫不动摇地坚持改革方向，继续完善社会主义市场经济体制，着力构建充满活力、富有效率、更加开放、有利于科学发展的体制机制。中国将坚持走中国特色新型工业化道路，着力转变经济发展方式，促进经济增长

由主要依靠投资、出口拉动向依靠消费、投资、出口协调拉动转变，由主要依靠增加物质资源消耗向主要依靠科技进步、劳动者素质提高、管理创新转变，努力建立现代产业体系。中国将坚持统筹城乡发展、统筹区域发展、统筹经济社会发展，推动形成城乡经济社会发展一体化新格局，推动区域协调发展。中国将坚持节约资源和保护环境的基本国策，提倡绿色生产方式和生活方式，提高资源利用效率，控制污染物排放总量，努力形成集约发展、清洁发展的国民经济体系，实现自然生态系统和社会经济系统良性循环。中国将加快推动以改善民生为重点的社会建设，着力解决好教育、就业、收入分配、社会保障、扶贫开发、医疗卫生、安全生产等方面涉及群众切身利益的问题，使全体人民共享改革发展成果。中国将坚持对外开放的基本国策，提高开放型经济水平，扩大开放领域，以更加积极的姿态参与国际经济合作。

今年以来，中国积极应对国际经济环境的复杂变化和重大自然灾害的严峻挑战，及时加强宏观调控，经济保持较快增长，金融业稳健运行，经济发展的基本态势没有改变。今年1至9月，中国国内生产总值增长9.9%，投资、消费、出口三大需求增长都超过20%。但是，自9月以来，随着金融危机扩散和蔓延，中国经济发展遇到的困难日益显现，主要反映在出口增速开始下滑，工业生产和企业效益受到不同程度影响。针对这一情况，为了推动经济发展，中国政府及时加强宏观调控，决定实施积极的财政政策和适度宽松的货币政策，采取了降低银行存款准备金率、下调存贷款利率、减轻企业税负等措施。最近，中国政府又出台了更加有力的扩大国内需求措施，决定今年中央财政增加投资1,000亿元人民币，用于加快民生工程、基础设施、生态环境建设和灾后重建，预计可带动社会总投资规模4,000亿元人民币。从今年第四季度到2010年底，中国用于这些领域的投资将增加4万亿元人民币。这些措施的实施，必将有力推动中国经济发展。中国经济平稳较快发展本身就是对维护国际金融稳定、促进世界经济发展的重要贡献。

女士们、先生们、朋友们！

作为全球最具活力和潜力的地区之一，亚太地区已成为世界经济发展的重要推动力量，在世界经济格局中作用和影响日益扩大。与此同时，世界经济形势严峻，能源安全和粮食安全问题突出，贸易保护主义抬头，生态环境恶化等问题都威胁

着亚太地区经济健康稳定发展。亚太经合组织成员多样性明显，相互依存度高、互补性强，为我们深化区域合作、共同应对挑战提供了有利条件。亚太经合组织成员长期致力于实现茂物目标和推动经济技术合作，积累了丰富的合作经验，为我们加强政策协调、开展务实合作奠定了良好基础。我们应该携手努力，共同推动亚太地区经济继续向前发展。

工商界是世界经济领域的主力军，是国际经贸关系健康稳定发展的重要推动力量。在应对国际金融危机、促进世界经济健康稳定发展方面，工商界可以发挥重要作用。世界经济发展的实践告诉我们，维护国际金融市场稳定，促进世界经济健康稳定发展，发挥好各类企业特别是跨国企业的作用十分重要。企业是要追求经济效益的，这是企业生存和发展的必然要求。同时，企业是在社会中存在和经营的，也必须考虑自身行为的社会效益和社会影响，特别是要考虑自身行为对经济安全运行和民众生活的影响。大家共同营造和维护一个良好发展环境，最终对每个企业都有利。在经济全球化深入发展的条件下，企业应该树立全球责任观念，自觉将社会责任纳入经营战略，遵守所在国法律和国际通行的商业习惯，完善经营模式，追求经济效益和社会效益的统一。企业在通过市场运作追求经济效益的同时，应该采取负责任的态度，注意互利互补，充分顾及整个经济平稳运行，认真应对各种风险和隐患。各国政府要加强引导和监督，通过制定和完善法律，为企业自主履行社会责任创造良好环境。

女士们、先生们、朋友们！

让我们携起手来，共同为促进亚太地区持续发展和推动建设持久和平、共同繁荣的亚太大家庭而不懈努力。

谢谢各位。

(3,034 Chinese Characters)

Reference English text:

Honourable chairperson, ladies, gentlemen, and friends,

Today, I am very happy to meet with leaders of the business circles here again to exchange views with all of you on how to deal with the international financial crisis and on China's development issues.

The year 2008 has been an extraordinary year for China. The Chinese people successfully resisted and fought back a snow disaster in extreme cold and the devastating earthquake in Wenchuan, Sichuan and successfully hosted the Beijing Olympic Games and Paralympics. I would like to take this opportunity to express sincere thanks on behalf of the Chinese government and people to friends in the business circles in various countries and regions for their support and assistance given to us in combating the catastrophic natural disasters and hosting the Beijing Olympics and Paralympics!

Ladies, gentlemen, and friends!

Currently, the international financial crisis is spreading from local areas to the whole world, from developed countries to emerging markets and countries, from the financial field to the field of the real economy, and it has had a severe impact on the economic development and the people's livelihood in various countries around the world. The situation is very grim. Effectively dealing with the international financial crisis, safeguarding international financial stability, and promoting world economic development bears on the prospects for global development and touches on the immediate interests of various countries. Recently, the G-20 Summit on Financial Markets and the World Economy took place in Washington DC, and the meeting reached a broad consensus on how the international community should deal with the international financial crisis, promote world economic development, and reform the international financial system. At the crucial moment, various countries in the world should enhance confidence, step up coordination and close cooperation, and quickly adopt effective measures, including all necessary financial and monetary means, to contain the expansion and spread of the financial crisis, stabilize international financial markets as soon as possible, alleviate the damage from the financial crisis on the real

economy as much as possible, promote world economic growth, and safeguard the common interests of people in various countries around the world.

China welcomes positive measures taken by relevant countries to deal with this financial crisis and hopes to see results soon. China has made major efforts within its ability to deal with the international financial crisis and adopted a series of measures including measures to ensure stability in the banking system in China, provide necessary liquidity support to financial markets and financial institutes, and coordinate and cooperate closely with macroeconomic policies employed by other countries. China will take a responsible attitude and continue to work with the international community to step up cooperation and strive to safeguard stability in international financial markets.

The international community should conscientiously sum up the lessons of the financial crisis. It should conduct necessary reform on the international financial system and create a system environment conducive to healthy global economic development on the basis of full consultation among all parties concerned, by grasping the direction for building a new international financial order which is fair, just, inclusive, and orderly, and by upholding the principle of being comprehensive, balanced, and progressive and striving for substantial results. It should step up cooperation on international financial oversight and enhance early warning and supervisory ability; it should enhance the global responsibility of international financial institutes for guarding against financial risks and raise the representativeness and the right to be heard of developing countries in international financial institutes; it should encourage regional financial cooperation and enhance regional ability to give mutual liquidity aid; it should steadily push for diversification of the international monetary system and improve the effectiveness of the existing international monetary system; and, all types of financial institutes and intermediate institutes should step up risk management and raise transparency.

China will continue to promote the construction of a world economic system that promotes sustainable development, an international financial system which is inclusive and orderly, an international trade system that is unbiased and reasonable, and a fair and effective global development system. China will continue to take into account the proper concerns of partners and especially developing countries in cooperation as China brings about its development, support the international community in helping developing

countries enhance their own development ability and improve their livelihood, support pushing for liberalization and convenience in trade and investment, support various countries in jointly safeguard the security of the world economy, and promote common development and prosperity of various countries.

Ladies, gentlemen, and friends!

At the moment, people pay great attention to the prospects for China's development, and friends in business circles are particularly concerned about China's economic and social trends under the new situations. Here, I would like to make a brief introduction on China's future development.

This year marks the 30th anniversary of China's reform and opening up. Reform and opening up over the past 30 years has brought China enormous unprecedented achievements in economic and social development and significantly raised China's economic strength, comprehensive national power, and the people's standard of living. Meanwhile, we also clearly understand that China is still the largest developing country in the world, and there is still a long way to go before China realizes modernization. On the road ahead, China will uphold and carry forward the scientific development concept that is people-centred and promotes all-round, coordinated, and sustainable development, unswervingly pursue reform, continue to improve the socialist market economic system, and apply efforts to build systems and mechanisms that are dynamic, efficient, more open, and conducive to scientific development. China will continue to follow a new path of industrialization with Chinese characteristics and expend efforts to change the modes of economic growth. China will promote the shift in economic growth from mainly relying on investment and exports to relying on consumption, investment, and exports and from mainly relying on higher consumption of resources to mainly relying on scientific and technological progress, improvement in the quality of the workforce, and management innovation, and will strive to build a modern industrial system. China will adhere to making overall plans for urban and rural development, regional development, and economic and social development, promote the forming of an integrated new setup for economic and social development in cities and villages, and advance coordinated regional development. China will uphold the basic national policy of conserving resources and protecting the environment, advocate green production means and life

styles, and raise the efficiency of resource utilization. China will control the emissions of pollutants, strive to form a national economic system of intensive and clean development, and bring about a benign cycle in the natural ecological system and social and economic systems. China will expedite advancing social construction focusing on improving the people's livelihood, expend efforts to resolve issues that touch on the immediate interests of the masses in areas such as education, employment, income distribution, social security, poverty relief, medical and health care, and production safety, and have all people share the results of reform and opening up. China will uphold the basic national policy of reform and opening up, raise the level of opening the economy, broaden the field of opening up, and take part in international economic cooperation with a more positive altitude.

Since this year, China has actively coped with complicated changes in the international economic environment and the severe challenges of major natural disasters and strengthened macroscopic regulation and control in a timely manner. China's economy has maintained relatively rapid growth, the financial sector has operated steadily, and the fundamentals of the Chinese economy have not changed. Between January and September of this year, China's gross domestic product grew 9.9 per cent and the three major demands of investment, consumption, and export all grew by more than 20 per cent. However, since September, with the expansion and spreading of the financial crisis, difficulties confronting China's economic development have become more and more evident, and they are mainly manifested in the fact that the growth rate of China's exports has begun to decline and industrial production and corporate profits have been adversely affected to varying degrees. In view of this situation, in order to boost economic development, the Chinese government has strengthened macroeconomic regulation and control in a timely manner, decided to follow a proactive fiscal policy and a moderately relaxed monetary policy, and adopted measures to lower the required bank reserve ratio, cut the deposit and lending rates, and eased corporate tax burdens. Recently, the Chinese government has introduced even more effective measures to expand domestic demand and decided to invest an additional 100 billion yuan this year to expedite projects related to the people's livelihood, infrastructure, eco-environmental construction, and post-disaster reconstruction. This is expected to generate a total of 400

billion yuan of investment nationwide. Between the fourth quarter of this year and the end of 2010, investment in these projects alone will reach nearly 4 trillion yuan. Implementation of these measures will certainly give a strong impetus to China's economic development. The steady and relatively rapid development in China's economy itself is an important contribution to safeguarding international financial stability and promoting world economic development.

Ladies, gentlemen, and friends!

As one of the regions in the world with the most vitality and potential, the Asian-Pacific region has become an important force for driving world economic development and is having a bigger role and influence in the world economic setup. At the same time, issues like the grim world economic situation, prominent problems in energy security and food security, the gaining ground of trade protectionism, and the deterioration of the ecological environment threaten the healthy and stable economic development of the Asian-Pacific region. There is distinctive diversity among APEC members and there is high dependency and strong complementary among APEC members, and this has provided favourable conditions for us to intensify regional cooperation and jointly deal with challenges. APEC members have long devoted themselves to bringing about the Bogor Goal and promoting economic and technical cooperation, accumulated rich experiences in cooperation, and laid down a good foundation for us to strengthen policy coordination and forge pragmatic cooperation. We should work together hand in hand and jointly push the economy of the Asian-Pacific region to move forward.

The business circles are the main force of the world in the economic field and are an important force to advance healthy and stable development of international economic and trade relations. In dealing with the international financial crisis and promoting healthy and stable development of the world economy, business circles can play an important role. Practice in world economic development tells us that it is extremely important to give good play to the role of various types of enterprises and specially transnational enterprises in safeguarding stability in international financial markets and promoting healthy and stable development of the world economy. Enterprises are to pursue economic results, and this is the inevitable requirement of the existence and development of enterprises. But at the same time, to exist and operate in society,

enterprises must also consider the social results and social impact of their behaviour and must especially consider the impact of their behaviour on economic security and operations and the people's lives. If everyone jointly creates and safeguards a good development environment, it will be beneficial to every enterprise in the end. Under the conditions of in-depth development of economic globalization, enterprises should establish the concept of global responsibility, include social responsibility in their management strategy on their own, abide by the laws in the country where the enterprises operate and international common business practices, improve their management models, and pursue unity of economic results and social results. As enterprises seek economic results through market operations, they should take a responsible attitude, pay attention to mutual benefits and mutual complementation, give full consideration to overall stable economic operations, and conscientiously deal with various risks and hidden worries. Various governments should step up guidance and supervision and create a good environment for enterprises to fulfil their social responsibility through drawing up and improving laws.

Ladies, gentlemen, and friends!

Let us join hands and jointly make unremitting efforts to promote sustainable development of the Asian-Pacific region and push to build a big Asian-Pacific family of lasting peace and common prosperity.

Thank you.

(2,040 Words)

* Xinhua Wang [Xinhua Net]. (2008). Hu Jintao zai APEC Gongshang lingdaoren fenghui shang de yanjiang [President Hu Jintao's speech at the APEC CEO Summit on 21 Nov. 2008]. Retrieved from http://tr.hjenglish.com/page/58647/

Text 2

Reference Chinese text:

榮譽法學博士陳兆愷法官致辭全文

香港城市大學校長就職典禮與榮譽學位授予典禮

監督、副監督、校董會主席、校長、各位嘉賓、各位同學：

今天香港城市大學舉行榮譽博士頒授典禮。值此盛典，更夠代表另外兩位榮譽博士支持，深感榮幸。我們獲香港城市大學（城大）授予榮譽博士學位，感到無上光榮。今天不但是我們三個人的大日子，同時也是城大的大日子；郭位教授就職城大新任校長，為典禮增添意義。郭教授擁有卓越的學術成就和豐富的行政管理經驗，是出任校長的最佳人選，並將在這個充滿挑戰的時代，帶領城大再創佳績。

郭教授跟歷任成大校長一樣，任重道遠。城大不但在規模上大大擴充了，在教學和學術研究方面更是發展迅速。城大現時共有 6 所學院，其中包括 20 個學習和學部、1 個專上學院及 21 個研究中心，全日制學生則超過 20,000 人，除了本地學生之外，還有來自內地和世界各地的學生。

城大雖然還比較年輕，但已成績斐然，學生、畢業生、教師和所有為這所學府默默耕耘的人均引以為榮。基於我在法律界的個人體驗及與城大相關學院的聯繫，我的觀察所得是：城大的法學專業證書畢業生，今年在法律專業界備受稱許；城大的語文及語言學研究人員更一直與司法機構合作發展不同的項目，以協助法庭更廣泛使用中文，及提升法官和司法機構人員的中文水平；城大的社會工作畢業生在社福界同樣表現突出，深受讚賞；而工商管理畢業生更成為大小商業機構爭相羅致的人才。事實上，城大在其他範疇均有傑出成就，實難在此逐一備述。當然，我們不能因此滿足。在這個競爭激烈的社會里，做的好並不足夠；要成功，就須力爭上游，任何時刻都要有過人表現。我深信，在校董會主席、校董會成員和郭教授的領導下，城大將繼續茁壯成長，桃李盈門。

多年來，城大一如本地其他大學，差不多每個學科中都培育出不少服務社會的才俊，其中更有許多人成為業界翹楚。然而，招聘高素質畢業生實非易事，相信兩位來自商界的榮譽博士均有同感。社會上普遍缺乏僱主渴求的合適人才。根據名為 Manpower 的機構 2006 年進行的調查結果顯示，全球有 40%的僱主因行內合適

人才緊缺而面對填補職位的困難。香港的相關數字比全球平均數字略為理想——只有 31% 的僱主面對招聘人才的難題。香港的情況較鄰近國家，如澳洲、新加坡和日本為佳。現時全球金融危機導致失業率上升，勞動市場的待業人數增加，人才短缺的壓力或許少可紓緩。其實，招聘人才的困難源自多方面因素，例如有關地區的經濟環境及就業市場情況等，不過市場缺乏受適當訓練而又成績優異的畢業生肯定是主因之一。倘若大學畢業生的水準未能符合公眾期望，物色合適人才的基本難題將繼續存在。

近年不少人認為，香港的大學畢業生水準普遍下降，競爭力明顯不及來自內地和從外國回流的畢業生。社會人士也特別關注本地大學生的語文水平；他們的普通話水平當然比內地畢業生遜色，而英文水平與外國回流學生相比 亦相形見絀。但是，本地大學畢業生更缺乏正確的工作態度和責任感。城大在多年前已開始為本科生引入有關語文和中國文化的必修科，實在令人鼓舞。城大在提升學生語文能力及常識方面，已朝著正確方向發展。然而，我們仍須努力。僱主要求雇員不單要有辦事能力，而且更要卓越超群。

僱主對我們的畢業生有什麼要求？據另一個由「香港政策研究所」進行的調查所得，顧主任為最重要的素質包括：足夠的工作或實習經驗、出色的溝通能力，以及積極參與課外活動。該調查同時顯示，僱主比較喜歡聘用曾在香港就讀，并具有在港實務或實習經驗的內地學生。

城大與其他本地大學一樣，錄取內地學生已有多年，而且人數持續上升。在 2007/08 年度，城大 20,000 多名學生中，有接近 1,500 名來自內地（佔 7.3%）；而在 2002/03 年度，只有大約 300 名內地生，僅占城大 15,300 名學生的 2%。由此可見內地生人數的增長。隨著政府推行「優秀人才入境計劃」，以及有關政策即將放寬，有人擔心來自內地的學生，包括曾在港就讀的畢業生，會對本地畢業生造成嚴重威脅。

在我看來，前景沒有這麼悲觀。我認為，競爭並非如想像中那麼可怕，也不會導致兩敗俱傷。反之，競爭往往推動改善，促成進步，從而達致完美。根據上述調查，內地畢業生無疑擁有本身的有點，正好符合僱主要求，例如有自信、上進心、

領導才能，書面論述能力較強。然而，本地畢業生也具備不少僱主欣賞的條件，例如比較有誠信、創新想像能力、國際視野、電腦操作能力，還有洞悉及解決問題的能力。因此，本地和來自內地的畢業生實在是各有所長，可以互相學習。我相信，如果做到這一點，本地和來自內地的畢業生水準皆可有所提升，必能合力為香港謀求福祉。香港過往取得的成就，正式本地和外來專才兼收並蓄的成果。我們的畢業生應成熟面對挑戰，虛心向對手學習，樂意與對方合作配合，堅持精益求精。

香港作為亞洲國際都會，有什麼優勝之處呢？我們只有少量工業和天然資源，我們擁有的最寶貴資產是人才，尤其是我們的畢業生。因此我們責無旁貸，須予以悉心栽培，讓他們為將來的事業學習必須的知識和技能，做好準備，同時要給他們灌輸正確的人生觀，讓他們日後對社會做出貢獻。我堅信，這是我們永恆不變的使命。

(1,991 Chinese Characters)

Reference English text:

Address by Honorary Doctor of Laws, Dr Justice Patrick CHAN at the Installation of President cum Honorary Awards Ceremony (11 Nov. 2008)

Chancellor, Pro-Chancellor, Council Chairman, President, Honoured Guests, Fellow Graduates and Students:

I am very pleased to be able to speaker on behalf of my fellow honorary graduates and myself on this special occasion. We greatly appreciate the honour of having been conferred an honorary doctorate degree by City University of Hong Kong. This is a special occasion not only for the three of us, but also for the University, since it marks the installation of its new President, Professor Way Kuo. Profession Kuo's academic reputation and administrative experience stand him out as the most suitable person to lead the University in these challenging times. His task is not any less onerous than his predecessors'. The University has expanded vastly and progressed tremendously in teaching and research. There are now three faculties consisting of 20 department sand divisions, three schools, one Community College an d21 research centres. The full-time student population exceeds 20,000, including not only local students but also students from the mainland and different parts of the world.

Although this University is still a relatively young institution, it has gradually become the pride of its students, its graduates, its teachers and all those who have worked hard to make it a success. I say this from personal experience in my own discipline as a lawyer and from my connection with the relevant faculties of the University: your Postgraduate Certificate of Laws graduates have during recently years earned the high regard of the legal profession; your language and linguistic research team has been in continuous co-operation with the Judiciary in projects aimed at the greater use of Chinese in the courts and raising the proficiency of the Chinese language of our judges and officers; your social work graduates have been considered one of the finest in the welfare sector; and your management and executive graduates are hotly sought after by commercial and business organizations. Without naming them, there are achievements in other areas as well. This of course is not a reason to be complacent. In this highly competitive society, good is simply not good enough. To succeed, one needs to be better, and furthermore, better and better all the time. I am sure that under the able leadership of the Council

Chairman, its members and Professor Kuo, the University will continue to flourish in the years to come.

Throughout the years, like other universities in Hong Kong, this University has trained numerous talented graduates to serve the community in almost every field and many of them have succeeded in their respective disciplines. Good quality graduates are not easy to recruit, as my fellow honorary graduates who are in the commercial and business sector must have experienced. There is a general shortage of the right talent. According to a survey in 2006 (by an organization called "Manpower"), 40% of employers around the world have difficulty filling positions due to the lack of suitable talent available within their market. Hong Kong has done slightly better than the global average – only 31% of our employers have difficulty in recruitment. This is better than some of our neighbours, such as Australia, Singapore and Japan. In the current global financial crisis, this difficulty may ease slightly as the rate of unemployment rises and more people are available in the labour market. The reasons for the difficulty in recruitment can be many and varied, such as the economic situation and employment market of the place concerned. But the shortage of properly trained and high standard graduates is certainly one of the main causes. The basic problem in getting the right staff will always remain if the standards of university graduates are not able to meet public expectations.

There have been complaints in recently years that the general standard of university graduates in Hong Kong is falling and that they are less competitive than graduates coming from the mainland and returning from overseas. There are particular concerns about the language standards of local graduates: their Putonghua is naturally not as good as that of mainland graduates and their English is outclassed by that of the returning graduates. What is more wanting is the correct attitude towards work and the lack of a proper sense of responsibility. It is thus quite encouraging to know that this University has for manly years introduced compulsory course on language and Chinese culture for all undergraduates. This is a step in the right direction and has helped to raise the standards of their language proficiency and level of general knowledge. But more is needed to be done. Employers are not content with mere competence and will only accept excellence from their employees.

What qualities do employers look for in our graduates? According to another survey (conducted by the Hong Kong Policy Research Institute), the qualities most required by employers include: adequate working or internship experience, excellent communication skills and participation in extra-curricular activities. The same survey also showed that employers prefer hiring mainland students who have studied in Hong Kong and have some practical or intern experience here.

This University, like other local universities, has for many years admitted students from the mainland and the numbers are rising. For 2007/08, there are nearly 1,500 mainland students among the more than 20,000 students (7.3%) compared with the 300 or so among 15,300 students in 2002/03 (a mere 2%). With the introduction by the government of the Quality Migrant Admission Scheme and the relaxation about to be implemented, some people are worried that the stream of mainland graduates, including those who have studied in Hong Kong, will pose a serious threat to local graduates.

I do not share such a pessimistic outlook. I believe that competition is not, as many people fear, naturally destructive. It is often the driving force for improved, progress and perfection. According to the same survey, mainland graduates no doubt have strengths that employers look for, such as self-confidence, writing skills, strong motivation and leadership. But there are good qualities in local graduates that employers appreciate, such as integrity, creativity, international exposure, computer literacy and the ability to discover and resolve problems. Thus there are qualities and virtues that local graduates and mainland graduates can learn from each other. I believe that, if they do, this will raise the standards of both local and mainland graduates and together, they can offer their best for Hong Kong. A good mix of local and incoming talent is what has made Hong Kong a success. Our graduates should have the maturity to meet the challenge, the humility to learn from their competitors, the readiness to co-operate with them and the determination to always do better.

What can we offer as the Asian World City? We have precious little industry and resources. Our greatest asset is our talent, especially the talents of our graduates. It is thus our distinct responsibly to equip them with the necessary knowledge and skills for their future endeavors and to nurture them with the correct attitude in life so they can

make valuable contributions to the community. This, I firmly believe, is our constant mission.

(1,176 words)

* Chan, P. (2008). Address at the Installation of President cum Honorary Awards Ceremony on 11 Nov. 2008, City University of Hong Kong.

Appendix 10
Consent Form

You are invited to participate in an educational research study. The investigator is Miss Pan Jun from the Department of Chinese, Translation and Linguistics, City University of Hong Kong. The project intends to gather information concerning issues in interpretation learning. You are invited as a possible participant in this study. If you decide to participate, you will be asked to complete some questionnaires in class. About 10-20 minutes will be needed for each administration. Some students will be asked to participate in an interpreting test or to be interviewed for further information. The test and interview process might be recorded.

Any information that is obtained in connection with this study that can be identified with you will remain confidential and will be disclosed only with your permission. It will be your decision whether or not to participate in this study. If you decide to participate, you are free to withdraw from the study at any time.

欢迎您参加一项教育研究课题。本课题的研究者是来自香港城市大学中文、翻译及语言学系的潘珺女士。本研究希望研究有关口译学习的情况。您被邀请参加本次研究。如果您同意参加，您将需要在课堂上完成几个问卷。大约需要 10-20 分钟的时间。有些同学还将被邀请参加测试和面谈，为研究者提供进一步的资料。测试和面谈内容可能会被录音。

本研究中关于您的任何个人资料都将严格保密。除非本人同意，绝不外泄。你可以完全自由决定是否参加本次研究。决定参加后，您也可以随时退出。

Signature of Participant 参加者姓名_____ Date 日期 _____

Signature of Investigator 研究者签名 潘珺_____ Date 日期 _____

Appendix 11

Elicitation Test Materials and the Reference Target Texts (Part II)

	Elicitation Test Materials	Reference Target Texts
Text 1¹		
P1-S1	尊敬的主席先生，女士们，先生们，朋友们！	Honorable chairperson, ladies, gentlemen, and friends!
P1-S2	今天，很高兴同各位工商领导人再次相会，就应对国际金融危机和中国发展问题同大家交换看法。	Today, I am very happy to meet with leaders of the business circles here again to exchange views with all of you on how to deal with the international financial crisis and on China's development issues.
P2-S3	2008年对于中国是极不平凡的一年。	The year 2008 has been an extraordinary year for China.
P2-S4	中国人民成功抗击了严重低温雨雪冰冻灾害、四川汶川特大地震灾害，成功举办了北京奥运会。	The Chinese people successfully resisted and fought back a snow disaster in extreme cold and the devastating earthquake in Wenchuan, Sichuan and successfully hosted the Beijing Olympic Games.
P2-S5	借此机会，我谨代表中国政府和人民，向为我们提供支持和帮助的各国各地区工商界朋友们，表示诚挚的谢意！	I would like to take this opportunity to express sincere thanks on behalf of the Chinese government and people to friends in the business circles in various countries and regions for their support and assistance given to us!
Text 2²		
P1-S1	现在我们来谈谈有关香港大学毕业生的问题。	Now let's address the issue of the university graduates in Hong Kong.

P1-S2	近年不少人认为，香港大学毕业生水准普遍下降，竞争力明显不及来自内地和从外国回流的毕业生。	There have been complaints in recent years that the general standard of university graduates in Hong Kong is falling and that they are less competitive than graduates coming from the mainland and returning from overseas.
P1-S3	他们的普通话水平比内地毕业生逊色，而英语水平与外国回流学生相比又相形见绌。	Their Putonghua is naturally not as good as that of mainland graduates and their English is outclassed by that of the returning graduates.
P2-S4	近年来，香港大学录取内地学生人数持续上升。	Recently, local universities have been enrolling rising numbers of mainland students.
P2-S5	例如，2008 年度，香港城市大学 20,000 多名学生中，有接近 1,500 名来自内地，占 7.3%。	For example, in City University of Hong Kong, in 2008, there are nearly 1,500 mainland students among the more than 20,000 students, accounting for 7.3%,
P2-S6	而在 2003 年，只有大约 300 名内地生。	compared with the 300 or so in 2003.
P2-S7	有人担心这将对本地毕业生造成严重威胁。	Some are worried that this will pose a serious threat to local students.

Notes:

1. Text and reference translation adapted from Xinhua Wang [Xinhua Net]. (2008). Hu Jintao zai APEC Gongshang lingdaoren fenghui shang de yanjiang [President Hu Jintao's speech at the APEC CEO Summit]. Retrieved from http://tr.hjenglish.com/page/58647/

2. Text and reference translation adapted from Chan, P. (2008). Address at the Installation of President cum Honorary Awards Ceremony on 11 Nov. 2008, City University of Hong Kong.

Appendix 12

Evaluation Sheet for the Elicitation Test

	Score-Part II	Score-Text 1	Score-Text 2	Language-Part II	Content-Part II	Presentation-Part II
Student 1						
Student 2						
...						

Continued

	Language-Text 1	Content-Text 1	Presentation-Text 2	Language-Text 2	Content-Text 2	Presentation-Text 2
Student 1						
Student 2						
...						

Continued

Part II	Pr (L)	Wd (L)	Gr (L)	S (L)	WN (C)	WW (C)	O (C)	Ot (C)	Mt (C)	Or (C)	C (C)	F (P)	R (P)	T (P)
Student 1														
Student 2														
...														

Continued

Text 1	Pr (L)	Wd (L)	Gr (L)	S (L)	WN (C)	WW (C)	O (C)	Ot (C)	Mt (C)	Or (C)	C (C)	F (P)	R (P)	T (P)
Student 1														
Student 2														
...														

Continued

Text 2	Pr (L)	Wd (L)	Gr (L)	S (L)	WN (C)	WW (C)	O (C)	Ot (C)	Mt (C)	Or (C)	C (C)	F (P)	R (P)	T (P)
Student 1														
Student 2														
...														

Continued

Sentence 1	Pr (L)	Wd (L)	Gr (L)	S (L)	WN (C)	WW (C)	O (C)	Ot (C)	Mt (C)	Or (C)	C (C)	F (P)	R (P)	T (P)
Student 1														
Student 2														
…														

Continued

Sentence 2	Pr (L)	Wd (L)	Gr (L)	S (L)	WN (C)	WW (C)	O (C)	Ot (C)	Mt (C)	Or (C)	C (C)	F (P)	R (P)	T (P)
Student 1														
Student 2														
…														

…

Continued

Sentence 12	Pr (L)	Wd (L)	Gr (L)	S (L)	WN (C)	WW (C)	O (C)	Ot (C)	Mt (C)	Or (C)	C (C)	F (P)	R (P)	T (P)
Student 1														
Student 2														
…														

Appendix 13

Transcription Scheme for the Elicited Data

Categories	Symbols of transcription	Remarks
Sentence Tag	< EC1 > < CE1 >	Sentence 1 of the English to Chinese interpretation; Sentence 2 of the Chinese to English interpretation.
Grammar mistakes	< >	This category only records mistakes in subject-verb agreement, verb tenses, etc. and the erroneous forms were recorded in the angle brackets after the correct forms, e.g. lives < life >, are < were >.
Pronunciation errors	< >	Similar to 1, erroneous pronunciation is represented by spelling and put into the angle brackets after the correct spelling, e.g. make < meek >.
Disfluent pauses[*]	...	"..." stands for a noticeable one, while "......" stands for a longer pause, etc.
Self-repetition/repair	I think, I think	Each repetition is recorded according to their occurrence.
Pause fillers	(er), (oh), (en), (um), (well)	
Small voice	( )	Put the words in small voices in to brackets.
Undistinguishable words	(XXX)	Similar to pauses, the number of "XXX" can be multiplied to represent longer strings of undistinguishable words.
Extra-linguistic information	( )	(laugh) (inhale) (exhale) (cough)

Note:

* According to Thompson (2005), the use of perceived long/short pauses is favored over the use of strictly timed pauses. The latter was regarded rather time-consuming and not useful for relevant analysis due to too many variables such as the rate of speaking, etc. Therefore, the current study applied the use of "..." to indicate a perceivable uneasy pause in the speech and the use of "......" to indicate a lengthier version of such pauses.

Appendix 14

Extracts from a Sample File in the Transcribed Database

<TEXT FILE 1>

< CI > < GROUPA > < S1 > < TASK3 > < SEX = F > < SCORE = 65>

< CE1 > < 0'05" > Hello, chairman<chairmans>, ladies and gentlemen!

< CE2 > < 0'19" > It's my pleasure to ... get together to discuss about the crisis<cresis> of the economic in the world ... and the development of China's, China's develop-economic (en) ...

< CE3 > < 0'04" > Two-thousand-and eight is a special year<nyear> for China.

< CE4 > < 0'20" > Chinese people succeeded to ... to cover the cold weather<bruther> and the white snow and the earthquake happened in Wenchuan, Sichuan Province. They<Dei>.

< CE5 > < 0'15" > I just stand for the Chinese government to thank for the... thank for ... thanks thanks the different different countries, regions for their help to China.

< CI > < GROUPA > < S1 > < TASK4 > < SEX = F > < SCORE = 68>

< CE1 > < 0'08" > (Exhale) Now, let's discuss the problems of the graduates from Xiang-Gang University.

< CE2 > < 0'10" > (en), many people think that their lev- the uni- the their students' levels are decreased.

< CE3 > < 0'38" > For example, (en) ... their English levels are worse than the students who came back who came back from foreign countries. Besides, their Putonghua ... is worse is worse than the students in Chi- in the land of China ... (en), so the students are not bad are worse than the students.

< CE4 > < 0'17" > In two- ... (en) in two-thousand-and-eight ... (en) now the universities in Xiang-Gang absorbed<obserbed> more and more students from the Chinese land.

< CE5 > < 0'19" > For example, in two-thousand-and-eight, the university of Xiang-Gang City it absorbed<obserbed> one-thousand-five-hundred students from the Chinese land, about seven-point-three-percent of all of all his students.

< CE6 > < 0'10" > And in two-thousand-and-three, it's just absorbed<obserbed> three-hundred students from the Chinese land.

< CE7 > < 0'30" > Many people worried about that it would be dangerous it would be dangerous for the for the students in Xiang- in Hong-Kong ... (en) ... it would be a greater it would be a greater crisis<criesis> for Hong-Kong students to attend the uni- the universities.

Appendix 15

Examples of Pronunciation Problems in the Database

\<p_v_w\>

Res- respected\<rispicted\>\<p_v_w\> person, ladies and gentmen

University. (en) These days\<dais\>\<p_v_w\> (en) (en) These days a

students. (en) (en) in in eight\<ait\>\<p_v_w\> one-thousand

\<p_v_a\>

encountered (en) great\<gweate\>\<p_v_a\> rainy and (er) snowy a

rage level is dropped\<dropede\>\<p_v_a\> (en) when compared wit

 (en) in economy (en) from\<froma\>\<p_v_a\> people around the world

\<p_v_d\>

the (en) developing\<develping\>\<p_v_d\> (inhale) (en) developing

we suffer from the suffer\<suf\>\<p_v_d\> from the (er) heavy

very extraordinary\<extradinary\>\<p_v_d\> year to Chinese people

\<p_c_w\>

not (en) is not is very\<wery\>\<p_c_w\> (en) (en) famous. (en)

university this year is low\<nou\>\<p_c_w\> (en) any other years o

 the level of English\<Engnish\>\<p_c_w\> (en) neither neither d

\<p_c_a\>

students who who went\<gwent\>\<p_c_a\> abroad. And their Putonghua

eive (er) receive many\<manlin\>\<p_c_a\> receive many stu- (en)

 (er) the graduate\<granduate\>\<p_c_a\> from Xiang Hong-Kong

\<p_c_d\>

with usual to discuss\<dicuss\>\<p_c_d\> the agriculture and a

and their English is not as\<a\>\<p_c_d\> good as people who com

ong. (en) For example\<egample\>\<p_c_d\> Hong-Kong Hong-Kong Ci

\<p_b_w\>

thanks for everyone\<ereyone\>\<p_b_w\> who helps us for example

ex- extraordinary\<exweidinary\>\<p_b_w\> to China because Chine

\<p_b_a\>

express my express<expepress><p_b_a> my thanks to the

(en), the honor<honene><p_b_a> of president, ladies an

is (en) there are only<online><p_b_a> three-hundred. (Er) so

<p_b_d>

(er) talk about economy<ecomy><p_b_d> economic (en) economy

about economy economic<ecomic><p_b_d> (en) econo

(en) competitive<competive><p_b_d> with (er) competitive

<p_s>

risks of (er) economy<ekonnomy><p_s> (er) internationally and

university. (en) Recent<ressent><p_s> in recent (en) many people

cold temperature<temperrature><p_s> and the (en) cold disaster