Error Analysis in Consecutive Interpreting of Students With Chinese and English Language Pairs

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Abstract

Error analysis is a very important approach to understand problem triggers of the processing capacity of interpreting students. Problem triggers has been studied by scholars of Interpreting Studies, such as Daniel Gile, a representative of cognitive processing paradigm, and others. An error analysis focusing on students is meant to understand what problems the students meet with in the process of training, and is also meant to discuss on the possibility of avoiding the errors through adequate training.

A preliminary analysis has shown that though with good basic knowledge of English, students did make errors in the face of the problem triggers. Hypothesis can be formed based on literature review and a preliminary analysis. Hypothesis 1: Numbers can be problem triggers for students in consecutive interpreting. Hypothesis 2: Nouns (or names) can be problem triggers for students in consecutive interpreting. Hypothesis 3: Logical relationship can be a problem trigger for students in consecutive interpreting.

Key words: Error analysis; Consecutive interpreting; Problem triggers; Interpreting training.

INTRODUCTION

Error analysis, a branch of Applied Linguistics based on Contrastive Analysis, appeared in Language Studies for the understanding of the unsuccessful parts, which is particularly significant for second language acquisition.

In Interpreting Studies, error analysis can be a very important approach to understand the "problem triggers" or "recurrent problems" to explain interpreting difficulties (Gile, 2009, p.171). Problem triggers are challenging parts in the source text that may cause a sudden saturation of the processing capacity of the interpreter, thus, a loss or distortion of the message. The triggers have been studied by scholars of Interpreting Studies, such as Daniel Gile, a representative of the Cognitive Processing Paradigm, and others. However, the focus has mainly been on the mode of simultaneous interpreting and on professional interpreters, whose experience may have already freed them of some triggers. An error analysis focusing on students is meant to understand what problems the students meet with in the process of training, and is also meant to discuss on the possibility of avoiding the errors through adequate training.

1. LITERATURE REVIEW

1.1 Error Analysis

Error analysis has been an important way of understanding a definite system of language at every point in the development of the learner of a second language (Corder, 1967). It is the study of the occurrence, nature, reason and consequence of the unsuccessful parts of the language (James, 2001). Therefore, error analysis is a method to try to explore the implications of the errors that are able to inspire the learners. From this perspectives, errors are not just a phenomenon, or something students are told to try to avoid. They can be the key points for researchers to better understand language acquisition.

As one of the several scholars whose research was devoted to error analysis, James (2001) believed that error analysis is not subordinate to Second Language Acquisition but an independent approach to deal with language materials. Emphasizing on language use rather than grammar, he believed pragmatic errors should be more emphasized on. There is also theoretical basis for identification, diagnosis, description and correction for the errors (Yu, 2008).

And from the perspective of engineering, the study of error is directed towards finding the causes or explanations for something that has happened, i.e., it is a retrospective type of analysis (Hollnagel, 1998, p.17). And it is also believed that since all actions involve a medium of cognition, human errors are all considered cognitive ones (Hollnagel, 1998, p.17).

In the field of Interpreting Studies, only a few studies are devoted to the study of errors, while some studies on quality assessment touch upon this topic.

One prominent error in interpreting is the error of number, mostly studied in the simultaneous interpreting mode. For instance, Liu and Xiao (2010) conducted a study on number errors based on the corpus of a DAVOS conference, drawing the conclusion that interpreting on number is a challenge in English-Chinese simultaneous interpreting. And the main reasons for the errors are believed to be the speech made by the speaker being too fast, numbers coming together, and the contexts of the number being incomprehensible to the interpreter.

The study of Alessandrini (1990) indicated that the numbers could be a problem even for experienced interpreters and the influence of figures is not only on the quantity of errors, but also on the quality of consecutive interpretation. The experiment of Mazza (2000) suggested that the accuracy rate without numbers is 81.8% in interpretation whereas only 53.9% of numbers. Pellatt (2006) found out that both complicated and simple numbers are susceptible to mistakes. However, with the process of interpreting going on, the accuracy rate of interpretation of numbers increases.

The studies of errors in interpreting mostly focus on errors on the interpretation of numbers, and proposals for potential improvement on this point were given. Yet, errors of other types also require analysis as they are affecting the accuracy in interpreting.

1.2 Problem Triggers in Interpreting

Before Gile, a set of early models tried to account for errors and omissions observed in the performance of simultaneous and consecutive interpreting instead of describing the simultaneous or consecutive interpreting process (Gile, 1999, p.154). Based on cognitive concepts and designed at a holistic level, the Effort Models developed by Gile (2009, pp.167-179) represent the process and difficulty of simultaneous and consecutive interpreting.

Problem triggers, under the conceptual framework of the Effort Models, are considered to be "associated with increased processing capacity requirements which may exceed available capacity or cause attention management problems, or with vulnerability to a momentary lapse of attention of speech segments with certain features" (Gile, 2009, p.171).

And problem triggers were "hypothesized, in particular speech segments or tasks requiring heightened attentional resources" (Gile, 1999, p.157). Therefore, the research on problem triggers is not only possible but also necessary in understanding the performance.

Problem triggers may include names, numbers, enumerations, fast speeches, strong foreign or regional accents, poor speech logic, poor sound, etc. (Gile, 2009, p.171).

"Quality deterioration, when it occurs, is not necessarily detected by observers. Processing capacity problems may result in deterioration of the content of the target language speech (errors, omissions, etc.) and/or of its delivery (linguistic output, voice, intonation, etc.)." (Gile, 2009, pp.171-172) This suggests that problem triggers are not directly observable, however, they can be inferred by deterioration of the interpretation, namely errors and omissions.

There are studies relevant to the problems triggers. For instance, Gile (1999) conducted an empirical study, asking 10 professional interpreters to interpret the same speech for two times in a row with the same external environment. Many errors and omissions occurred for the first time were corrected in the second time while some new errors and omissions occurred. The only plausible explanation is that the processing capacity of the interpreter is limited and therefore, not enough attentional resources was able to be adequately allocated. Matysiak (2001) and Gile (2009, p.183) replicated the experiment and found similar results. Gile (2001, 2009, p.183) predicted specific difficulties in simultaneous interpreting vs. consecutive interpreting in the same speech on the basis of the Tightrope Hypothesis and found errors and omissions consistent with the hypothesis. Other studies provide indirect evidence on numbers, names and idiomatic expressions that could adversely affect neighboring segments (Gile, 2009, p.183; Mazza, 2000; Cattaneo, 2004). As for the study of problem triggers, mostly the focus was on simultaneous interpreting, not consecutive interpreting. And research was mainly on professional interpreters, who may have already formed strategies to cope with the problems in their practice. It is necessary to understand the problem triggers for students, and in the consecutive mode of interpreting because the training of consecutive interpreting could be a very important turning point for them to develop themselves from a non-interpreter to interpreter, a fundamental shift. And most of the studies examined the interpretation that was not between English and Chinese, especially not from Chinese to English.

Therefore, it is necessary to examine the possible problem triggers of students with Chinese and English language pairs doing consecutive interpreting in order to better understand the phenomenon and to try to provide viable solutions to the training.

2. RESEARCH QUESTION AND DESIGN

This study is meant to explore the following several questions: (a) What are the problem triggers in the C-E and E-C consecutive interpreting of students? (b) If possible, how to deal with the problem triggers in training?

Problem triggers are not directly observable, while it can be inferred by examining the errors students made in consecutive interpreting. In this study, error indicates anything that the target text disagrees with the source text, such as errors, omissions, distortion of meaning, etc.. And while problem triggers are inferred, errors are what can be directly observed from the texts for the analysis of the potential problem triggers.

In the ideal condition, everything can be literally translated, and "one only needs to deviate from the literal translation if for some reason or other it does not work." (Chesterman, 1997, p.94) In this study, close observation of the corpus of this study shows that the design of the test texts (source texts) made it possible to stick to the literal translation. Therefore, literal translation is the reference in this study, and the non-literal translation can be categorized as errors such as summary translation. And here, errors indicate a tool for analysis, not a judgment of whether the target text is acceptable or not.

However, when examining the performance of the students, it is difficult to distinguish whether the errors are made because of certain segment being challenging or because of the inadequate language ability of the students. Therefore, it is important to control the difficulty level of the source text and guarantee the appearance of problem triggers for examination at the same time. And another important issue is the homogeneity of the students since it can be very difficult to determine the problem triggers if the competence of the students vary on a wide range.

The national finals of the 3rd CTPC Cup All China Interpreting contest that took place in 2014 can be an appropriate choice for controlling unwanted variables for the examination for the following several reasons. (a) The source texts are basically at the same level of difficulty for the fairness of the contest. Based on observation of the video and corpus of the contest, it was found out that variables such as speed of delivery and accent of the speech could be adequately controlled variables. (b) The source texts are generally suitable for the contestants' language competence. (c) The source texts are generally not very long in total, around 1 minute 40 seconds in both Chinese and English source texts. Therefore, also based on observation, memory is typically not a problem

for the contestants, which in turn controls the variable of the memory capacity. (d) The contestants in the national finals represented a reasonably high level of students of similar age and grade. Of the 14 contestants of the finals, 9 were master students of translation or interpreting, with one master of English, born between 1987 to 1990. And 4 was undergraduate students at the time of the contest, born around 1992. Therefore, it can be assumed that they acquired an adequate level of competence in English speaking. If not, individual cases can be separately examined. (e) The environment of the contest is the same, which controls the variable of the environment, such as sound.

Hypotheses can be formed based on the studies of Gile and others. Hypothesis 1: Numbers can be problem triggers for students in consecutive interpreting. Hypothesis 2: Nouns (or names) can be problem triggers for students in consecutive interpreting.

Based on daily observation, logical relationship could be a challenge for students in the process of training. Therefore, a third hypothesis is formed. Hypothesis 3: Logical relationship can be a problem trigger for students in consecutive interpreting.

The contest is designed with two sections: (a) Interpretation from Chinese to English; and (b) Interpretation from English to Chinese. The analysis will also be made in these two sections accordingly.

Transcription of the 3rd CTPC Cup All China Interpreting Contest was made for the sake of analysis. And in this way, the source texts and target texts of the 3rd CTPC Cup All China Interpreting Contest were compiled into a small corpus.

In this study, the classification of errors is based on observation of the corpus. As for Chinese to English interpretation, errors types are: (a) combining neighboring sentences; (b) nouns; (c) addition of meaning; (d) number; (e) deviation of meaning; (f) omission; (g) undertranslation; (h) self-imposed logic; (i) repetition; (j) wrong word form; (k) whole-text deviation.

As for English to Chinese interpretation, error types are: (a) combining neighboring sentences; (b) nouns; (c) addition of meaning; (d) number; (e) deviation of meaning; (f) omission of whole sentence(s); (g) partial omission of sentence; (h) summary translation/self-imposed logic; (i) addition of logical connectives; (j) explanatory translation; (k) whole-text deviation.

As each of these types is not mutually exclusive, it is possible for a segment of the interpretation to fall into more than one type of the errors.

3. ANALYSIS

3.1 Quantitative Analysis

3.1.1 C-E Interpretation

Figure 1 is a distribution chart of errors based on the total

number of errors of C-E interpretation in this corpus. It shows that the top one error type is nouns, accounting for 28%, followed by deviation of meaning, with 21%. The next biggest error is omission, with 16%. Addition of meaning, self-imposed logic, undertranslation and number accounted for 11%, 9%, 6%, and 5% respectively.
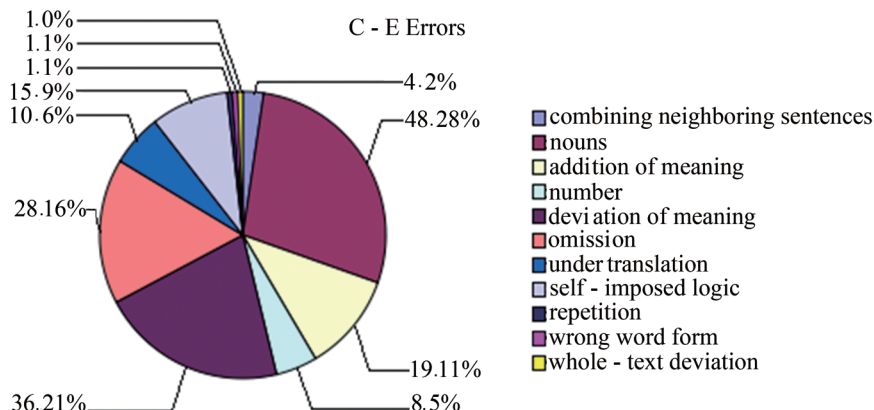

Figure 1
C-E Errors

As nouns (or names, as in Gile's study) accounted for 28%, more than a quarter of all errors, it is likely that the sudden appearance of an unfamiliar noun can be a problem trigger for students in consecutive interpreting. Even with a certain amount time to process before having to produce the interpretation, unfamiliar nouns still take much of the processing capacity. And the "buffer time" in consecutive interpreting does not seem to be of much benefit to counter the effect of nouns as it still takes the biggest proportion in all of the errors, possibly because it is not unlikely to turn unfamiliar nouns into familiar ones without seeking outside help such as dictionary or website.
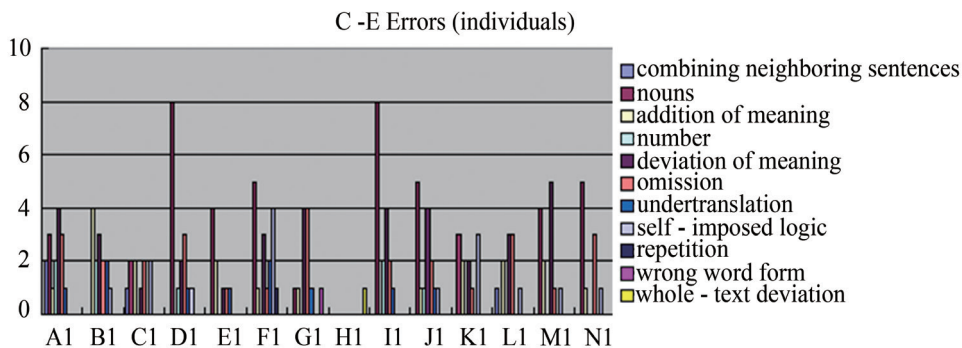

Figure 2
C-E Errors (Individuals)

Figure 2 is one with distribution of errors for individuals of Chinese to English interpretation, with A1 to N1 indicating 14 contestants. As for individuals, it seems that each one produces errors in different ways. However, there are a few errors that are very much prominent in many individuals, such as nouns, deviation of meaning and omission.

3.1.2 E-C Interpretation

Figure 3 is a distribution chart of errors based on the total number of errors of E-C interpretation in this corpus. The top one error is deviation of meaning, with 22%, followed by partial omission of the sentence, with 16%. And the next biggest errors are nouns, omission of the whole sentence(s), summary translation/self-imposed logic, and addition of meaning, accounting for 14%, 14%, 14%, and 7% respectively. Number, a hypothetical problem trigger, accounted for 5%. It is possible that there is not many numbers in the source text, therefore, only a few number errors.

Nouns (or names) is the top three error in English to Chinese, indicating that it is potentially a problem trigger in English with Chinese interpretation. Considering the fact that it is the top one error in Chinese to English interpretation in this corpus, it is likely that Hypothesis 1: Numbers can be problem triggers for students in consecutive interpreting can be accepted.

Figure 4 is one with distribution of errors for individuals of English to Chinese interpretation. And A2 to N2 indicating the same 14 contestants as in Chinese to English interpretation. Same alphabet between Chart 2 and Chart 4 indicates the same contestant, while the number "1" after the alphabet stands for C-E interpretation and "2" for E-C.

Similar to C-E interpretation, errors made by individuals in E-C interpretation vary. However, errors such as deviation of meaning and partial omission of sentence seem to be common errors of many individuals.
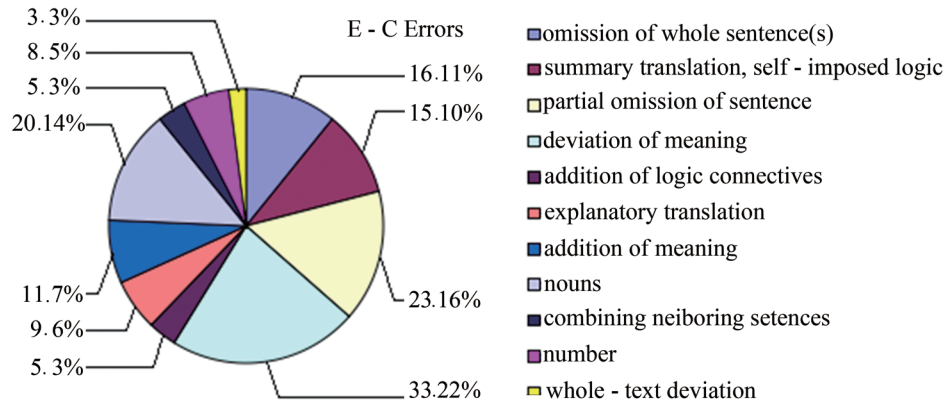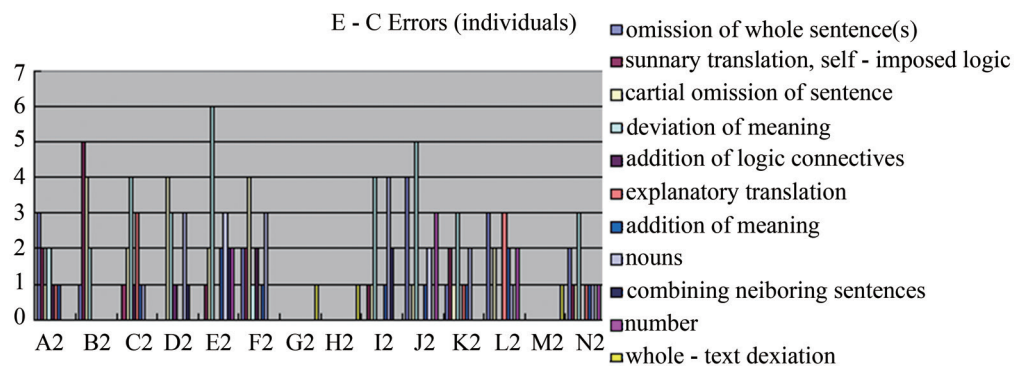

Figure 3
E-C Errors

Figure 4
E-C Errors (Individuals)

3.2 Qualitative Analysis

As some of the top errors in the corpus are discovered through quantitative analysis, it is necessary to qualitatively analyze the these errors, and if possible, the reasons and strategies behind those frequently made errors.

3.2.1 C-E Interpretation

In Chinese to English interpretation, the top errors in descending order are: nouns, deviation of meaning, omission, addition of meaning, self-imposed logic, undertranslation, and number. An examination of the corpus is needed in order to better understand the possible reasons behind the errors.

3.2.2.1 Nouns

Errors of nouns accounted for more than a quarter of all errors in C-E interpretation, which requires careful examination. As for the same category of nouns, there are different cases. Generally, they can be further categorized into four types: (i) simple proper nouns; (ii) nouns with logic in the context; (iii) cultural concepts; and (iv) nouns in enumeration.

(i) Simple proper nouns

Simple proper nouns could be some of the most frequently seen errors. There are Chinese names whose English equivalent is either not known to or not remembered exactly by students. Examples are as follows:

①

| 首都博物馆 | the national museum of Beijing |

②

| 故宫 | Chinese Palace |

③

| 简洁的平屋顶 | a very simple dose |

Another possible scenario is that the pronunciation of the noun that does not require any other conversion apart from anglicizing is not remembered clearly on the spot for the student when doing consecutive interpretation.

④

| 后英房胡同 | Houyingmen Alley |

(ii) Nouns with logic in the context

In this case, the noun in question is sometimes confused maybe because of lack of enough processing capacity of students to deal with local contexts on a more detailed level. Examples are as follows:

①

| 北二环南侧 | The south and the second ring |

②

明清北城墙	The Ming-qing Wall

③

古代皇宫建筑群	Ancient architectures

④

建筑师兼校长格鲁皮乌斯设计建成了一座建筑工艺学校新校舍巴豪斯校舍	A architecture and headmas, headmaster in Germany named Bohos uh name uh architecture and headmaster built a school building in Bohos Germany

(iii) Cultural concepts

In the Chinese source text, it may or may not be "a noun" in a strict grammatical sense, but a concept that should be treated as a whole, therefore similar to the treatment of nouns. This is a type that can be very difficult to translate since maybe the cultural connotation is not understood by the student, therefore, there is a problem in thorough comprehension of the source text. Another possibility is that as the Chinese language is very much different from English, although the student may understand the nouns in Chinese, s/he is not able to produce it adequately in English, thus it is a problem at the phase of production. Examples are as follows:

①

明成祖认为天子居北, 正是居重驭轻	Because he feels that if an emperor lives in Beijing, it is very good for his authority.

②

但是他深知迁都是一件关乎国家兴亡的头等大事	He is deeply aware of the fact that moving the capital of the south is a very important issue for the well-being and prosperity of the country.

③

后来嘉靖皇帝将他的庙号改为成祖	In the year Jiajing, he called himself "Chengzu"

(iv) Nouns in enumeration

In Gile's study (2009, p.171), enumeration has already been listed as a problem trigger, which can also be reflected in the corpus of this study. In most of the cases, enumerations are about nouns, therefore, it is not separately listed as a category but to be included in the category of nouns. Examples are as follows:

①

同时, 又通过简洁的平屋顶、大片玻璃窗和白色墙面产生了不同的视觉效果	At the same time it also used uh many large areas of windows to help people enjoy a very good vision effect.

②

校舍主要由教学楼、生活用房和学生宿舍三部分组成.	That was consisted of the teaching building, the students' dormitory and other facilities.

Examples like these suggest that it seems that when there appears a noun that a student is not familiar with in Chinese to English interpretation, it is difficult to bypass it with coping tactics. And nouns seem to take up quite a lot of the processing capacity of the students as some nearby context can be disturbed when a noun or a name is not familiar.

As for those well-known names with conventional translation, such as "故宫" and "首都博物馆", there seems to be no better way than to know them. As for an interpreting practitioner, adequate preparation is needed. However, there is no guarantee that one is able to prepare everything that is going to be said. Therefore, a solid foundation in the knowledge base is very much needed by the students.

As for the cultural concepts in C-E interpretation, it may or may not be an issue of translation ability. One important point is to fully understand the Chinese cultural concepts, which may not be a focus of students of English major but a necessary ability for competent interpreters if they are to interpret culture-related topics. When a cultural concept is well understood, it is necessary to be able to translate it into English, which concerns translation ability.

Enumeration seems to be a problem trigger as nouns in the previous examples does not seem to be very much problematic if seen individually. "平屋顶、大片玻璃窗和白色墙面", "教学楼、生活用房和学生宿舍" all seem to be simple nouns, but not adequately translated in the target text, which suggests that when nouns are put together, simple as they may be, could cause saturation in the processing capacity. Students may need to be aware of this possible saturation and try to rally their processing capacity when they sense enumeration coming.

3.2.1.2 Deviation of Meaning

In this study, deviation of meaning can be divided into two part: (i) interpretation mistakes; and (ii) not being accurately expresses the sense of the source text. If a mistake is made, that segment of the interpretation is generally seen as not being acceptable. In some special cases such as court interpretation, accuracy is especially focused on. While for some of the less formal occasions, sometimes, general equivalence on the whole is seen as acceptable in interpreting as they do not affect the understanding in general, though quality interpretation requires more accuracy. In any case, a further improvement is needed in order to reach a better quality in interpretation.

(i) Interpretation mistakes

①

六十年代之前	in 1960s

②

六十年代之前	60 years ago

③

| 迁都北京 | To move its emperor to Beijing |

④

| 为了城市扩建，拆了城墙，地底下铺了地铁二号线 | And after that it was in demolition because we need to cause wide the metro second metro line |

(ii) Not being accurately express the sense of the source text

①

| 可能没有人会想到 | And actually, people cannot imagine that |

②

| 话说到这儿，这到底是一件什么宝贝值得收藏在首都博物馆里呢？相传，早在宋朝，皇帝宋徽宗，作家苏东，书法家米芾，这三位不同领域的大佬，为了一件东西起了争执，正是它，一方砚台. | So why is this treasure special, in the Song dynasty, the temple of Song dynasty and the famous poet Su Dongpo and Mi Fu, in order to gain this special treasure, they made an argument about a, a writing material. |

③

| 在人们眼中，对现代建筑的定义，不外乎两点：高大或是形状新奇. | I guess the definitions of modern building could be related to two words: First is tall second is uh strange but uh strange but uh original shapes. |

④

| 我的体会呢，至少表明了这么三点 | And I think this shown three facts. |

⑤

| 我的体会呢至少表明了这么三点 | So I conclude three points to response this kind of question |

As the Chinese source texts are generally being around 1 minute and 40 seconds, it is unlikely that the errors are the results of memory issues. It is more likely that students understood them wrongly in the first place. And of course, just like what Gile (1999, p.157) suggested "speech segment with low redundancy were also problem triggers, since they had low tolerance of attentional lapses such as might occur because of attentional mismanagement". And the contest speeches were just the case, with very low redundancy, which requires intense attention management. And the occurrence of deviation of meaning in C-E ranges from 0 to 5 for different contestants, with one exception of whole-text deviation.

Examples of "not being accurately express the sense of the source text" indicate deviation in sense, however, not mistakes considering the context as the deviation is not major ones and the general meaning is not seriously distorted.

Perhaps it is inevitable to have some deviation for students when they do consecutive interpreting, who may not even be aware of the deviation without the interpretation being examined by transcription. The source text language being different "from their habitual speech production patterns may account for the poor quality of language output in students' interpreting exercises" (Gile, 2009, p.165). However, "scrutiny of consecutive and simultaneous interpreting transcripts from other experiments seems to suggest that overall, linguistic deviation rates for professionals are much lower" (Ibid.). It suggests that reducing deviation in meaning could be a task of students in their interpretation if they are to improve the quality of their interpretation.

3.2.1.3 Omission
The error of omission can be divided into two types: (a) omission of secondary information; and (b) omission of major information.

(i) Omission of secondary information
This kind of omission does not affect general message conveyance considering the context. Sometimes, considering the strategy of interpreting, it may even be called for sometimes in order to leave enough processing capacity to the much more important message in the speech. Examples are as follows:

①

| 1402至1424年在位，年号永乐，后来嘉靖皇帝将他的庙号改为成祖 | He governed Ming dynasty from 1402 to 1424. Later, the Jiajing Emperor has changed the title of Zhudi to Chengzu, |

②

| 明成祖认为天子居北，正是居重驭轻，可以加强北部边防，就采纳了这个建议 | Mingcheng Emperor believes that as the son of the God, he should be placed to live in the northern region of China, as well as it is a, conductive to strengthen the governance of the northern region of China. |

(ii) Omission of major information
This is a kind of omission affecting message conveyance because it omits important message such as comments or summary sentences made by the speaker. This kind of message usually shows the attitude of the speaker, the consequence of a certain event, or the significance of something that the speaker believes in. With this kind of omission, the message can be weakened to a certain extent. Examples are as follows:

①

这个词儿一提出啊, 可以说在全国上下引起了热烈的反响.	

②

由于现在雾霾问题呀, 确确实实是社会上下关注度非常好, 非常高. 那么, 在这种情况下呢, 作为政府啊, 向人民必须有一个说法. (主持人: 嗯!) 所以说是已经成为最大的民生问题.	Smog has long been a concern for the public and this is a highly relevant to people's livelihood and well-being.

③

校舍的建造从建筑物的实用功能出发, 按各部分的实用要求及其相互关系定出各自的位置和体型, 成为现代主义建筑史上的里程碑.	It is in the quarters with requirement of a building and different relationship between different part and style of the building.

The two types of omission suggest that it seems that omission is not completely unacceptable and it can be a strategy to prudently allocate the limited resource of processing capacity. However, as for students, it may be difficult for them to differentiate important and less important message. Therefore, the omission can be one with important message such as comments and summary sentence. Comments and summary sentences can be abstract, which is difficult for the students to grasp, though consecutive interpretation provides the possibility of listening to the complete message before interpretation. Being able to grasp the major points can be a symbol of having improved competence of interpretation.

3.2.1.4 Addition of meaning

The addition of meaning can be divided into four scenarios: (i) addition of meaning that is non-existent and out of nowhere; (ii) addition of meaning that is meant to further explain cultural specific items; (iii) addition of meaning that is inferred from the context; and (iv) addition of topic sentence or summary sentence.

(i) Addition of meaning that is non-existent and out of nowhere

Sometimes, the addition is something that can not be reasonably inferred from the context. It is possible that there could be a short confusion in the effort of interpretation and therefore the student just "say" something that does not exist in the source text.

①

话说到这, 这到底是一件什么宝贝? 值得收藏在首都博物馆里呢?	So after my interpretation, you may understand the mystery, that is uh in order to have this marvelous second metro line undergoing, we have demolated the Ming city wall. And it is now a very precious cultural relic in the national museum. **So let's now get down to business.**

②

嗯在总理记者会上呢李克强再次强调了宣战这个词儿啊, 可见咱们政府对于治理环境的这个决心之大.	And Prime Minister Li Keqiang Premier Li Keqiang has **called for whole country to deal with issue in mainland**, in fight. And then during the press conference given by premier, he emphasized that we need to fight against this smoggy weather.

(ii) Addition of Meaning That Is Meant to Further Explain Cultural Specific Items

Sometimes, some cultural specific items need further explanation for the better understanding of the audience who do not have the same cultural background. However, if that is the case, the addition should be accurate. The following addition is not very accurate, and is better not added if not accurate.

①

李克强总理呢, 也在政府工作报告中指出: 要向雾霾等污染宣战!	And in the government's reports **released by State's Council**, premier Li Keqiang has actually declared all...war against smog.

(iii) Addition of meaning that is inferred from the context

Some additions are made because some relevant information can be inferred from the context after listening to a complete segment in consecutive interpretation. Therefore, this kind of addition may not be seen as wrong. However, from the accurate perspective, it is not optimal interpretation.

①

形状新奇	Innovative in its shape and style

②

原来, 六十年代之前, 北京有一圈明城墙, 为了城市扩建拆了城墙, 地底下铺了地铁2号线.	It is said that in the 1860s, there was a uh... wall in Beijing around the second circle. But however, the order to build the Line 2 of the railway, the government demolished the wall.

③

路面上就是二环, 这后英房胡同就在今天的西直门内, 北二环南侧.	In the second ring of Beijing. They constructed, they found this special treasure, and this is in the Houyingfang Hutong, where's the Xizhimen located.

④

第三个来讲呢, 也是给广大人民群众的一种关注的一种回应.	And number three, this is the government feedback and answer to the attention, and the voice and fear of all our people.

(iv) Addition of topic sentence or summary sentence

Summary can sometimes be necessary. As can be seen from Code of Professional Conduct of UK National Register of Public Service Interpreters that "in exceptional circumstances a summary may be given if requested". Therefore, sometimes a summary may be requested but it depends upon the protocol of a certain conference, and code of conduct of various interpreters and translators associations generally see not changing anything as the desirable practice.

①

在今天的首都博物馆里就收藏着一件修地铁修出来的文物	Now, welcome to the Capital Museums

②

	The smog has been a central concern of society.

3.2.1.5 Self-Imposed Logic

The logic of Chinese sometimes need inference from the context in order to be discerned clearly. However, there are also cases where clearly stated logic being distorted by students.

①

为了修地铁2号线, 工程兵拆了明城墙	So during the construction of the subway line 2, when the workers were demolishing the the walls, they found this cultural relic

②

照片上正在拆除的, 就是明清北城墙.	In the picture we can show that a demolition is in the process. And we can also see the North city wall in Ming and Qing dynasty.

③

嗯在今年的全国人代会上, (主持人: 嗯.) 总理呢在报告中提出来像向贫困宣战一样, 向污染宣战.	During the N, NPC sessions, our premier has given the reports and he said that we need to fight against pollution likeuis us we fight poverty.

One reason for imposing a logic to the text is perhaps the students missed the logic in the source text, and tried to reconstruct the logic afterwards. Or perhaps the students tried to read the note while interpreting, therefore, unable to construct the logic as it was.

3.2.1.6 Undertranslation

In this study, undertranslation indicates that not all message, including details, is fully conveyed in the interpretation. Undertranslation is perhaps not a mistake, but does not fully represent the emotions or attitude in the source text.

①

为了修地铁2号线, 工程兵拆了明城墙, 没想到这一拆拆出了宝贝.	So during the construction of the subway line 2, when the workers were demolishing the walls, they found this cultural relic,

②

我的体会呢至少表明了这么三点:	and personally I want to say three things:

③

......不同的视觉效果	it has in itself the effect of

3.2.1.7 Number

In the corpus of this study, numbers in Chinese to English interpretation are mainly concerned with the expression of years. It is likely to be one of the reasons why the errors of number only ranks top 7 is the limited occurrence in the source text despite of the fact that literature shows that number is a problem trigger and it has been proved by scholars to be a challenging part in interpretation.

(i) Omission of number

①

1961年, 经国务院批准, 故宫被定为全国第一批重点文物保护单位.	The State Council has listed the Chinese Palace as the first um two…conserve.

②

1926年, 德国德绍, 建筑师兼校长——格罗皮乌斯设计建成了一座建筑工艺学校新校舍, 包豪斯校舍.	It is called, the place is called Deshao and the president and an architect in that school created a very innovative school buildings in Bauhaus

(ii) Number translated wrongly

①

原来, 六十年代之前	It is said that in the 1860s

②

1961年	1901

③

1987年,	And in 1989,

④

我们所说的这件跟地铁有关的东西, 前后左右是元代的文物, 丝毫没有六十年代修地铁的信息. 这到底是怎么回事呢?	There is the legacy, traditional cultural legacies, cherished in the ancient times, but it was exhibited in the railway exhibitor. It is about and concerned with uh…the 1860s.

3.2.2 E-C Interpretation

In English to Chinese interpretation, the top errors in descending order are: deviation of meaning, partial omission of the sentence, nouns, omission of the whole sentence(s), summary translation/self-imposed logic, and addition of meaning. An examination of the corpus is needed in order to better understand the possible reasons behind the errors.

3.2.2.1 Deviation of Meaning

Unlike Chinese to English interpretation, in English to Chinese interpretation, the cases of deviation of meaning are mainly due to being unable to fully comprehend certain segments of the speech. And the "momentary lapse of attention of speech segments" was probably related to not being accustomed to the logic of English speech, which is relevant to Hypothesis 3 of this study. This somehow shows that, to a certain extent, the English texts comprehension strategies of the Chinese students can be further analyzed in order to better guide the students to an improved comprehension.

And the deviation of meaning has two scenarios: (i) inaccurate interpretation; and (ii) completely wrong.

(i) Inaccurate interpretation

Just like in C-E interpretation, in E-C interpretation inaccurate interpretation may not be seen as unacceptable considering the context. However, quality interpretation may require more accuracy. Examples are as follows:

①

Some of my strongest performers did not have stratospheric I.Q. scores.	他们最大的区别并不是他们的智商的高低

②

Like I have said before that we must treat the illegal wildlife trade as a battle, because it is precisely that.	我之前, 刚刚也谈到, 我们必须要把这个战役当做是一场非常必须坚持到底的斗争

③

Today you hear these infernal machines going night and day. We will not have a vocal cord left, Sussa said.	然而, 由于这个机器的存在, 现在它正在日以继, 夜以继日地播放这些歌曲, 所以我们认为这将会给, 人的发展带来革命性的影响

④

Uh Things like breast cancer and colon cancer are directly tied to our lack of physical inactivity,	还可能会导致其它的疾病, 包括肺癌等等其它癌症. 所有这一些都是因为我们缺乏运动

(ii) Completely wrong

As for the cases of the completely wrong, it does not seem to be "completely" as certain elements of the source text still exist in the target text. However, the logic of the target text is completely different from the source text despite of some overlapping elements. As logic somehow conveys important message, a distortion of logic consists of serious mistake. Perhaps reasons of inability to follow the logic require further research. However, it seems likely that logic of English speech could be a problem trigger for Chinese students. Examples are as follows:

①

And like any teacher, I made quizzes and tests.	那其实呢, 我在教授数学的时候用到了一些教学方法和设备

②

Unarmed park rangers are no match for these organized gangs and high-powered equipment. Tragically, many brave rangers have lost their lives while trying to save those of the animals.	这样的一场战争在我们看到的国际性的犯罪和组织方面是前所未见, 还有很多人为了保护野生动物, 或者说是在, 有一些犯罪, 违法犯罪者, 他们在偷猎的过程中还丧失了生命.

③

More than cars or the Internet or even that little mobile device we keep talking about, the technology you're using the most almost every day is this, your tush.	我们坐在车里上网, 并且使用这些移动设备, 大家每天所用到的这些科技, 所做的这些事情, 都在影响着我们的健康.

④

Someone invited me to a meeting, but couldn't manage to fit me in for a regular sort of conference room meeting, and said, "I have to walk my dogs tomorrow. Could you come then?"	我参加了一个会议, 大家坐下来真正讨论到了, 而且会有人问我说 "那我要去遛狗能不能帮个忙"

3.2.2.2 Partial Omission of the Sentence

Just like in C-E interpretation, partial omission of the sentence can sometimes be a strategy of allocation of the limited resource of the processing capacity in order to leave enough processing capacity to the much more important message in the speech.

①

We have come together, as father and son, to lend our voices to the growing global effort to combat the illegal wildlife trade	嗯, 现在, 我希望大家能够听到我的声音, 来一起反对这种跟动物相关的这种非法贸易

②

Like I have said before that we must treat the illegal wildlife trade as a battle	我认为这一个贸易是非法的, 我们把它视之为一个斗争

③

Now this is the picture of culture that I want you to focus on. This is a picture of culture.	我认为我们应该主要关注的一个议题就是, 文化

④

Nowadays people are sitting 9.3 hours a day, which is more than we're sleeping, at 7.7 hours. Sitting is so incredibly prevalent, we don't even question how much we're doing it.	现在有数据显示大家每天坐的时间高达9个小时, 甚至比我们睡觉的7.7个小时还要长. 可是大家好像都没有意识到这一点.

From the examples, it is clear that partial omission of the sentence does not affect the general message. However, it does affect the logic at the local level.

3.2.2.3 Nouns

Unlike Chinese to English interpretation, where nouns take up a quarter of all errors, errors of nouns only rank top 3 in English to Chinese interpretation in this study. It seems that in English to Chinese interpretation, logic, represented in the error of deviation of meaning, is a bigger problem trigger than nouns or names, though the latter is still quite a prominent problem trigger.

Similar to C-E interpretation, there are different types of error of nouns: (i) simple nouns; (ii) concept formed by several nouns; and (iii) names with several syllables.

(i) Simple nouns

①

Organized bands of criminals are stealing and slaughtering elephants, **rhinoceros** and tigers, as well as large numbers of other species,	很多的一他们一很多的这些违法的偷猎者, 他们把大象, 老虎等等野生动物进行猎杀和偷猎到其他国家

②

Uh Things like breast cancer and colon cancer	还可能会导致其它的疾病, 包括肺癌等等其它癌症.

③

Assault rifles, silencers, night vision equipment and helicopters	比如说他们可以用直升机和它装备进行一些偷猎活动

(ii) Concept formed by several nouns

①

I want to talk to you a little about **user generation content**. I am going to tell you three stories on the way to one argument.	下面呢我给大家围绕我的论点讲述三个故事:那就是我们是怎样开启一个关于商业的用户平台

②

Modern computer terminology	当代的电脑技术

③

When I was 27 years old, I left a very demanding job in **management consulting** for a job that was even more demanding: teaching.	在我27岁的时候呢, 我得到了一份对我要求特别高的工作, 也就是当一个经理的顾问, 那后来我又去当了一个老师, 那么其实这个职业对我来说其实是要求更高的

④

talking machines	自述化的机器

(iii) Names with several syllables

①

John Philippe Suzaa	一个名为约翰的先生呢

②

John Philippe Suzaa	John Philips

If a simple word is not known to a student, one way to cope with it on the spot is to try to understand it from the context, especially if it is an important one in the message. In the long run, trying to remember more words is always a necessary strategy for a student interpreter.

When a concept composed of several words is not properly interpreted by the student, it may be because the concept is not understandable to the students, or, just like names with several syllables, the long names cause an inadequate management of attention. In either way, comprehension strategy of this kind of problem trigger should be further analyzed.

3.2.2.4 Omission of Whole Sentence(s)

As for omission of whole sentence(s), there are three typical types: (i) summary replacing sentence(s); (ii) complete omission of sentence(s); and (iii) omission of topic sentence.

(i) Summary replacing sentence(s)

This type of omission seems to be related to the inability to full comprehension while the general idea is attempted to be preserved as much as possible. It is sometimes a strategy showing students' awareness of the interpreters' role of facilitating the communication. This could sometimes show that students grasped the general logic of the speech though the exact wording while some local logic is missed.

①

When I was 27 years old, I left a very demanding job in management consulting for a job that was even more demanding: teaching.	今天呢, 我要讲的主题呢主要是跟教学 相关的.

②

But these concepts are not impossible, and I was firmly convinced that every one of my students could learn the material if they worked hard and long enough.	然后我就发现其实如果说让他们如果他们有能力让这些学生学习一些更难的东西并不是不可能的。

③

Sitting is so incredibly prevalent, we don't even question how much we're doing it, and because everyone else is doing it, it doesn't even occur to us that it's not okay. In that way, sitting has become the smoking of our generation.	可以说呢，坐着的时间太久已经像吸烟一样危害了我们这一代人的健康.

(ii) Complete omission of sentence(s)

This is perhaps related to the saturation of the processing capacity, and the sentence is completely lost.

①

I gave out homework assignments. When the work came back, I calculated grades.	

②

Ten percent in fact, on both of those.	

(iii) Omission of topic sentence

Topic sentence, together with the concluding sentence and comments, can be abstract and thus, difficult for the students to grasp in a momentary lapse.

①

And that got me thinking. The kinds of things you need to learn in seventh grade math, sure, they're hard: ratios, decimals, the area of a parallelogram.	后来呢我又发现我教授的一些二年级的学生呢他们在比如说计算这个比率方面呢也做得很好.

3.2.2.5 Summary Translation/Self-Imposed Logic

These two types fall into one category because both of them are directly related to the error of logic. In summary translation, internal logic of that particular segment of speech is subjected to change, which is the same in cases of self-imposed logic.

(i) Summary translation

①

Organized bands of criminals are stealing and slaughtering elephants, rhinoceros and tigers, as well as large numbers of other species, in a way that has never been seen before, pushing many species to the brink of extinction.	所以我看到他们在很多地区猎杀大象以及野生老虎. 另外, 也有很多物种也现在以一种前所未有的速度处于灭亡之中.

②

We have come together, as father and son, to lend our voices to the growing global effort to combat the illegal wildlife trade - a trade that has reached such unprecedented levels of killing and related violence that it now poses a grave threat not only to the survival of some of the world's most treasured species, but also to economic and political stability in many areas around the world..	我们今天的话题是关于终结关于野生动物的贸易. 进嗯, 他们以一种前所未有的方式改变了野生动物的生活。他们现在危及着世界上很多的物种，同时也影响到世界上很多区域的经济和政治的稳定.

③

The rising and apparently insatiable demand, much of it from Asia, has provided an economic incentive for trafficking to become increasingly criminalized and professional. Organized bands of criminals are stealing and slaughtering elephants, rhinoceros and tigers, as well as large numbers of other species, in a way that has **never** been seen before, pushing many species to the brink of extinction.	因为，全球相对于这种，呃, 珍稀物种的需求量不断上升，这就会引起一些经济的走私和一些犯罪，也会使得一些珍稀的动物. 如: 大象, 老虎等濒临灭绝，这是我们以前所没有看到过的.

④

I want to talk to you a little about user generation content. I am going to tell you three stories on the way to one argument. Let's going to tell you a little about how you open up user generation content up for business.	我今天想用三个事情来证明我今天的最后的一个论点, 就是关于这个用户生成的这么一个过程, 是如何创造我们现在的这个买卖的.

(ii) Self-imposed logic

①

In education, the one thing we know how to measure best is I.Q.	所以说, 之前我们一直在讨论说教育当中可能最重要的一个因素之一是学生的智商

②

A trade that has reached such unprecedented levels of killing and related violence that it now poses a grave threat not only to the survival of some of the world's most treasured species, but also to economic and political stability in many areas around the world.	而实际上, 今天在全球各地, 这样的一场偷猎和捕猎野生动物的行动正以前所未见的规模进行着.

3.2.2.6 Addition of Meaning

There are three types of addition of meaning in this corpus: (i) addition of meaning that is related to the student; (ii) addition of meaning that is inferred from the context; and (iii) addition of topic sentence or summary sentence.

(i) Addition of meaning that is related to the student

This is an addition that is meant to show politeness by the student in concluding the interpretation.

①

	谢谢大家!

(ii) Addition of meaning that is inferred from the context

The addition of meaning can somehow show that the student is listening actively to the speech and inferring message from the source text. However, quality interpretation may require less or no addition to the target text while the message is sent only by the translated words.

①

When the work came back, I calculated grades.	然后他们把作业返回来之后我会给他们打分然后计算这些分数.

②

And because everyone else is doing it, it doesn't even occur to us that it's not okay. In that way, sitting has become the smoking of our generation.	因为身边的人都是这样子的, 所以根本就没有想到. 其实这并不是一个正常的事情, 这样做根本就不对, 所以对今天的世界来说, 久坐已经成为了本世纪的吸烟问题

(iii) Addition of topic sentence or summary sentence

As discussed previously in the C-E Interpretation, according to Code of Professional Conduct of UK National Register of Public Service Interpreters that "in exceptional circumstances a summary may be given if requested". Therefore, summary sentence or topic sentence may sometimes be needed. However, it does not seem to be absolutely necessary in the case of the contest.

①

My father and I hope you share our belief that it is **shocking** that future generations may know a world without these magnificent animals and the habitat upon which they depend.	今天我和我的父亲在此强烈呼吁一定要抵制这种非法贩卖以及对珍稀物种的捕, 因为我们都知道这是一场比较持久的战争, 同时呢因为它也给我们带来了一些非常令人非常震惊的事实.

②

	今天呢我来谈一谈这个健康问题.

③

	那么今天我们要讨论的问题就是一些疾病问题.

3.2.2.7 Number

This error only accounts for 5% of all errors of English to Chinese interpretation in this study. In examining the corpus, it was likely that the low occurrence of errors is due to the few appearance of numbers in the source text. Some examples are as follows.

①

| Ten percent in fact, on both of those. Six percent for heart disease, seven percent for type 2 diabetes, which is what my father died of. | 而缺乏运动也是在从60%的程度上导致了人们可能会患心脏病，70%同样也导致了人们可能会患糖尿病，就像我的父亲一样. |

②

| I went to teach seventh graders math in the New York City public schools. | 我当时呢是在纽约的一个公立学校教授三年级的数学 |

③

| After several more years of teaching | 所以，啊嗯，在我11年的这个教学经验当中呢 |

DISCUSSION

At the beginning of this paper, three hypotheses were proposed for further analysis. Hypothesis 1: Numbers can be problem triggers for students in consecutive interpreting. Hypothesis 2: Nouns (or names) can be problem triggers for students in consecutive interpreting. Hypothesis 3: Logical relationship can be a problem trigger for students in consecutive interpreting.

As for Hypothesis 1, errors of number take up 5% in both C-E and E-C interpretation in the corpus of this study, which does not seem to be a very high figure compared with other types of errors. This may partly be due to the low occurrence of number in the source text. However, when examining the errors that do exist in the corpus, it seems likely that more numbers would invite more errors. And seen from studies of other scholars, it is likely that numbers can be problem triggers for students in consecutive interpreting.

As for Hypothesis 2, nouns (or names) account for 28%, the largest proportion, of all errors in C-E interpretation in this study, and 14% in E-C interpretation. Nouns are certainly problem triggers in C-E of students, not only because of the percentage, but also the inability to cope with them when caught by surprise shown by the students performance in the corpus. And in E-C, it is the third largest error in the corpus. Nouns, or names, whether in the simple form, enumeration or some reconstructed concept, take a lot of the processing capacity and can be problem triggers for students in consecutive interpreting.

As for Hypothesis 3, logical relationship. It seems that in C-E interpretation, the top errors that concern logical relationship are nouns with logic in the context, deviation

of meaning, omission, addition of meaning, and self-imposed logic. And in E-C interpretation, the top errors that concern logical relationship are deviation of meaning, partial omission of the sentence, omission of whole sentence, summary translation/self-imposed logic and addition of meaning.

Though it is possible that some errors, for instance, nouns with logic in the context, partial omission of the sentence, can be related to nouns as well, in general, it is also the logic that is not discernible to the students.

In that case, in C-E interpretation, errors concerning logical relationship account for roughly 57.3% of all errors. And in E-C interpretation, errors concerning logical relationship account for roughly 80.8%. It somehow shows that for students interpretation of both directions, logical relationship can be a problem trigger. At the same time, E-C interpretation represents a bigger proportion of logical errors than C-E. As the mother tongue of the students in this study is Chinese, it is easy to understand that logic in Chinese is easier to them than that in English. While it is possible that exposure to the speeches in English is important for a better grasp of the English logic.

And errors in logical relationship represents more than half in interpretation of both direction, indicating that the logic is a big issue that should be focused on in the training of students.

In research of text linguistics, Beaugrande and Dressler (1981, p.4; Hu, 2012, p.30) indicated, concept and relations are the components of the texts. And a "CONCEPT is definable as a configuration of knowledge (cognitive content) which can be recovered or activated with more or less unity and consistency in the mind. (cf. V. 4ff.) RELATIONS are the LINKS between concepts which appear together in a textual world: each link would bear a designation of the concept it connects to." (Beaugrande & Dressler 1981, p.4)

It appears that nouns in this study correspond to the concept of Beaugrande and Dressler and logical relationship to relations, the comprehension of both of which constitute that of the text. Inability to comprehend either the concept or the relations would cause message loss in the comprehension stage of consecutive interpreting. And it seems that relations or logical relationship stand for a more prominent problem trigger than concept or nouns in consecutive interpreting of students.

CONCLUSION AND LIMITATION

In the study, it was found out that Hypothesis 1: Numbers can be problem triggers for students in consecutive interpreting; Hypothesis 2: Nouns (or names) can be problem triggers for students in consecutive interpreting; and Hypothesis 3: Logical relationship can be a problem trigger for students in consecutive interpreting can be accepted.

It was also evident that the logical relationship constitutes a much more prominent problem trigger than nouns. Presumably, it is important for the teacher to emphasize on the identification of the logical relationship to the students during the process of the training.

Limitation of this study is that as the source texts were short in length, it is impossible that all language phenomena were covered. And the contest where the corpus was generated was not a typical working environment for interpreters. As a result, there is a possibility that when the environment is different, the performance can be different because the contest may mean more pressure to the students.

ACKNOWLEDGMENT

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