

# **An Empirical Study on the Effect of Listening and Analysis Ability on the Performance of Novice Interpreter in E-C Simultaneous Interpreting**

Shiyi Rong<sup>1, a</sup>

<sup>1</sup> Graduate School of Translation and Interpretation, Tianjian Foreign Studies University,  
Tianjin 300204, China

<sup>a</sup> shiyirong97@gmail.com

## **Abstract**

Since the Nuremberg Trials in the 1920s, simultaneous interpretation has now become a form of interpretation widely used in large international conferences. In the process of simultaneous communication, the interpreter needs to listen to the speaker's speech and spread the translation to the audience. The translator's speech and translation are conducted almost at the same time, which plays an important role in promoting the international instant information exchange at all levels and fields. In the conference, the output quality of simultaneous interpretation affects whether the audience can correctly, timely and accurately understand the information delivered by the speaker, and it is very important for the success of a conference, so the relevant academic research has been carried out one after another. This paper will mainly use empirical research analysis combined with interviews, By soliciting nine students majoring in interpretation from different translation schools, Audiological ability tests and English-Chinese simultaneous interpretation tests, Based on the theory of interpretation and non-fluent phenomena, According to the statistical listening analysis scores of the subjects, Using the SPSS data analysis software, According to the accuracy of the main, secondary, and overall information in the subject's translation, And the number of non-fluency (restructuring, repeats, false starts, silent pause), Based on the results of the questionnaire completed by the subjects after completing the test, Summarize the influence of the interpreter's listening ability on the simultaneous interpretation output quality and its concrete performance.

## **Keywords**

**Simultaneous interpretation; The interpretative theory of translation; Non-fluency phenomena; Listening and analysis ability.**

## **1. Introduction**

The current research direction of the same interpretation output is mainly focused on two aspects: one is the influencing factors and evaluation standards of the output quality of the same interpretation, and the other is the scientific training method of the same interpretation. In terms of with output quality, since the 1970s and 80s, Chinese and western scholars for interpretation quality put forward their own theory and standards, two core characters of Paris interpretative theory of translation, professor Seleskovitch and professor Gile think with interpretation in the actual work process because involved participants, external conditions are complex, so there is no unified and fixed quality assessment standards. Many scholars agree with this view, but they have adopted a variety of methods, including questionnaires and control variables, trying to summarize more basic interpretation evaluation criteria, such as in 2003 Professor Pio. S used the accuracy of the quality assessment research of the same language

interpretation, that is, the fluency of the translation and the source language as the evaluation criteria. As for China, in recent years, interpretation, especially simultaneous interpretation, has attracted more and more attention in recent years. The major universities offering interpretation courses have also successively adopted the quantitative evaluation standards of interpretation quality. In summary, it mainly focuses on accuracy and fluency.

However, at the same time, the empirical studies on studies affecting the quality of simultaneous interpretation output have not been widely carried out, and most of the studies have been conducted from the perspective of source language speed and interpretation anxiety. However, according to Gill's cognitive load model theory, Listening analysis ability, as one of the four factors affecting the output quality of the same interpretation (the other three are short-term memory, verbal expression and coordination ability), has not received much attention as a research variable. In English and Chinese, for Chinese translators, Chinese native language input itself will not cause difficulties, with the interpreter understanding of the speaker speech content to a certain extent determines the accuracy of the output and fluency, if the interpreter in the process of translation encountered analysis understanding difficulties, or understanding deviation, will affect the quality of translation, so that the audience can not understand or correctly understand the meaning of the speaker. Therefore, listening ability is an important factor affecting the quality of English and Chinese simultaneous interpretation. According to the practical observation, the student interpreter translation quality is generally low in the same interpretation training, and the poor listening ability is one of the main reasons for the low output of the student interpreter quality. Based on this, this paper takes the listening ability of translators from English and Chinese as the variable, and aims to analyze the influence of different listening ability on the output of English and Chinese native translators from the perspective of translation accuracy and fluency from the perspective of interpretative theory of translation and non-fluency phenomenon.

This paper is divided into seven chapters, The first chapter is the preface, The background and significance of this study are briefly introduced; chapter two is a literature and summary, and summarizing the research of Chinese and foreign scholars, Subsequently, the previous interpretation quality evaluation criteria were and summarize, Finally, the theoretical framework of this study is introduced; The third chapter presents the theoretical framework of this paper, Seleskovitch's Interpretative Theory of Translation, And Tissi's classification framework for classifying non-fluent phenomena; chapter four is the experimental design, The experimental purpose, experimental object, experimental environment, experimental materials and experimental process are expounded; chapter five is the collection and description of experimental data, Including the elaboration of the experimental data collection methods and the description of the collected experimental data; chapter six is the analysis of the experimental results, Including the correlation analysis of the Listening analysis ability and the same interpretation output quality, And on the interpretation-based quality output standards, accuracy (mis-interpretation, omission) and fluency (sound pause, silent pause, recombination, repetition), To analyze the causes of the experimental recording data, At the end of this chapter, the findings of, The influence of listening analysis ability on the accuracy and fluency of the same interpretation is expounded respectively. Chapter 7 is the conclusion, and summarizes the research process of this paper.

## **2. Literature Review**

### **2.1. Listening and Analysis Ability in Interpretation**

Listening and analysis is the first step in interpretation practice, which is a prerequisite for the translator's memory, translation conversion and final expression[1]. Listening and analysis is the first link in the interpretation process, and understanding is the basis of interpretation.

Listening comprehension during interpretation is different from that of foreign language students. Foreign language students do not necessarily complete listening comprehension at the same time, while the interpreter must complete pronunciation analysis and word meaning comprehension, sentence layer meaning understanding and even paragraph or discourse meaning understanding at the same time[2]. As far as general listening is concerned, information acceptance is passive and following, and the response to information is slightly delayed, while the interpreter's listening process is active and active, focusing on the whole of semantic logical relations, rather than a simple collection of words and sentences. In the process of listening, there is a large degree of prediction and judgment of behavior, starting not only the auditory system, but also the analysis of understanding mechanisms and memory mechanisms in the brain[3]. Compared with the general listening exercises in foreign language learning, listening comprehension in interpretation has at least three basic characteristics: highly concentrated attention; comprehensive listening with "every detail"; active listening, paying attention to the source information in the listening process [2]. It can be seen that the listening ability in interpretation includes listening ability and analysis ability, understanding is the basis of listening, listening process mainly mobilizes the auditory system, helps the interpreter to complete the recognition of speech and meaning, is the primary link in the analysis process; analysis is the main characteristics of interpretation, it mobilizes the interpreter brain analysis understanding mechanism and memory mechanism, requires the interpreter to actively understand the overall semantic logic of the source language.

On listening ability and interpretation research, most many domestic scholars will put the research Angle in the interpretation process what listening barriers, and in the actual interpretation process should adopt those strategies, for example, Zheng Ling[4] from their online with interpretation practice, combing the online video conference interpreter will encounter listening barriers and put forward the relevant coping strategies. Another main research perspective is how to improve interpreter interpretation teaching especially students interpreter listening ability, for example, Li Hong[5] is combined with illustration theory, discuss whether in translation professional English listening class through "listening comprehension skills specified module training" to improve students 'listening ability, through listening independent training to maximize the activation of the students' brain pattern, so as to guide students in the process of attention allocation, finally achieve the goal of improving the accuracy and integrity of English and Chinese interpretation.

To sum up, many researchers do conduct multi-angle research on the level of listening ability, but they lack of specific empirical research on the relationship between the ability of listening and the quality of English and Chinese interpretation. Therefore, this paper hopes to supplement this part with the help of empirical experimental research.

## 2.2. Interpretation Quality Assessment Study

Since the 1970s and 1980s, many Chinese and Western scholars have put forward their own theories or standards for interpretation quality assessment. Seleskovitch[6] pointed out that the quality of translation should be judged from the perspective of the audience, and that the translation itself is not the end: " The process of communication does not end in the same interpretation box." Gile[7] believes that because of the large number of participants involved in the translation activities, there is no unified and fixed quality assessment standard, and suggests that the needs and expectations of the audience will be different from the quality evaluation system of the interpreter itself. In his book on Conference Translation[7], Gile attributes the participants who may have different expectations for translation to the speakers, translators, listeners, conference organizers, technicians, and so on. In the field of methodology, Gile[7] believes that questionnaires are the most common way to understand listeners 'needs and expectations for interpretation, and that it is also the most intuitive and scientific way to

collect data on delegates' views on translation quality. Gile conducted a case study of a medical conference in 1990, conducting a questionnaire survey on listeners based on the reflection of the conference translation, including the overall quality of the translation, the quality of language output, the use of terms and other terms, scoring from 1 to 5. The results consistently scored higher scores for the present American representatives, while the French representatives generally gave lower scores, indicating that the translation quality assessment is affected by many factors. Moser-Mercer[8] took a similar view to Gile, arguing that the translation quality evaluation would vary from various angles and under various conditions. She believes that translation can only work best when some "external conditions" (external condition) are best suitable. These conditions include: a. The external environment (the area of the same box, equipment, air quality, the location of the same box, lighting, etc.) b. The complexity of the discussion topic c. Translation preparation before translation d. Speech itself (speech speed, accent, etc.)

In addition, Moser-Mercer[8] also proposed that the measurement, evaluation, and analysis should be adopted separately, depending on the purpose of the quality assessment. The quality of translation in natural scenarios is evaluated, measured if studied in the laboratory, and analyzed if the purpose is to evaluate the quality of translation by students or novice translators. In addition, the purpose of the evaluation also has a very important influence on method selection, such as interpreter evaluation is to find out how many mistakes in their translation, or understand yourself in A language into B language, or B language into A language which direction to do better, or analysis is better at which field of meeting. From the empirical research, Buhler[9] conducted a well-known study in 1986. She distributed the 16 criteria for translation quality evaluation as questionnaires to 41 AIIC translators, asking them to rank them by importance. The ranking results are as follows (diminishing importance): primitive meaning, logical coherence, reliability, pre-translation preparation, terms, fluency, grammar, completeness, teamwork, sound sound, endurance, oral standards, feedback, reasonable form, posture, and dress. On this basis, Kurz[10] studied the first eight important criteria, and found that if from the perspective of the audience, they did not pay special attention to the grammar and completeness standards, paying more attention to the accuracy of the terminology and logic. Thus it can be seen that the audience's point of view has a certain influence on the formulation of translation quality standards. In a paper on translation quality published on the AIIC website, Mead[11] cited scholars including Kurz and Gile, citing the evaluation methods of translation quality from the perspective of whether meeting audience expectations and whether the translation significance is consistent with the original text, and found that it was difficult to obtain universal and unified measures. In addition, Pio[12] adopted two perspectives in the study of the quality assessment of the same interpretation based on different language speed, one is the macro-level meaning equivalence of the translation language and the source language, namely the accuracy, and the other is the fluency of the same interpretation. In terms of accuracy evaluation, Pio[12] divides the problem into omission, substitution, addition, and logic-temporal order errors. In terms of fluency evaluation, non-fluency is divided into three categories: mispronunciation, sound pause and silent pause

In the domestic interpretation assessment research, Hu Gengshen[13] has proposed the "CREDIT" Model: Credibility, Representability, Accessibility, Elegance, Diversity, Immediateness, Timeliness, Technicality. The overall effect of the interpretation can be calculated by the formula containing these six variables, Thus obtaining quantifiable results. Hu Gengshen's CREDIT Model is somewhat innovative, and to some extent, it echoes the standards of "faithfulness", "comprehensibility" and "elegance".

Cai Xiaohong[14] pointed out that the basic principle of interpretation quality assessment is to "faithfully convey the communicative intention of the speaker", so that "the original text and the translation have the same communicative intention", and summarized the evaluation

criteria into the following aspects: credibility, acceptability, simplicity, diversity, agility and technology.

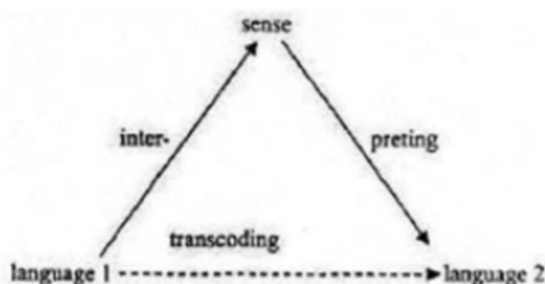
It can be seen that the domestic and foreign scholars have made many studies on the translation quality evaluation standards, and the entry angles are also different. Some of them are empirical research, and some also adopt quantitative standards, but also take factors including external conditions and audience angles and other factors into consideration, requiring translators to have certain flexibility and produce clear and fluent expression. But overall, accuracy and fluency are the accepted criteria.

### 3. Theoretical Framework

Based on the previous theory of translation quality assessment, this study used "accuracy" and "fluency" proposed by Pio[12] in 2003 as the two criteria for assessing translation quality, and to measure simultaneous interpretation fluency, using Tissi's[15] classification method of non-fluent phenomena. Among them, accuracy emphasizes whether the same interpretation is faithful to the original text; fluency emphasizes the clarity and fluency of the translator, and the obstacles to the listener's understanding of the translator. The determination of "accuracy" mainly refers to the interpretation theory of Seleskovitch, and analyzes the frequency of mistranslation and misinterpretation in the output of the interpreter at different speed; and the fluency index is divided into silent pause and sound pause, including filling word, reorganization, repetition and start error.

#### 3.1. Accuracy Theoretical Framework

In the 1970s, the French scholar Seleskovitch put forward the Interpretative Theory of Translation, which emphasizes the accurate and clear interpretation of the meaning and trust of the original text as the standard for considering the quality of translation. The school goes beyond the level of language itself, instead using translation as a communicative act, focusing on its function of meaning transfer. According to the Italian scholars, interpretation involves three processes



As shown in the figure above, source language (language 1) and target language (language 2) are at the two lower ends of the triangle, while sense is at the top. On the basis of correctly understanding the meaning of the source language, the process of transcoding, namely interpret the meaning of the source language, is crucial. After experiencing this process, the understood source language can be translated into accurate and smooth translation expression. If this link is omitted, and the source language form is still retained, and it will become a mechanical and obscure verbatim translation, and the oral translation will lose its own communication value. Seleskovitch and Lederer[6] believe that the purpose of the translation language transformation process is to make the translation language and the source language equal in meaning. In this study, although different translators will have different personal ways in choosing words and sentences, as long as the output and the original text can be equivalent to the meaning required by the interpretation theory.



### 3.2. Fluency Theoretical Framework

Fluency is one of the criteria to evaluate the quality of an interpreter. Fluent output helps promote audience understanding. Gossy[15] defines non-fluency in speech as a phenomenon that disrupts the flow of speech language and does not provide substantive content. Due to the challenge and complexity of simultaneous translation work, the non-fluency phenomenon of simultaneous translation is more common. Pause has many roles in oral communication, the most obvious one is that it can affect the speed of speech, that is, the more the number of pauses, the slower the speed of speech. Mazzetti[16] points out that pauses help eliminate syntactic ambiguity, help divide speech levels, help emphasize specific content, attract audience attention and assist in understanding. While analyzing the phenomenon of disfluency, Tissi pointed out that it also needs to pay attention to the simultaneous interpretation of both listening and speaking simultaneously, which needs to adapt to the style of the speaker accordingly. When assessing the quality of simultaneous interpretation, attention should be paid to how many pauses and interruptions of the speaker himself. Since the 1950s, different scholars have tried to classify non-fluent phenomena. Maclay and Osgood[17] divided non-fluency into silent pause, sound pause, repetition and start error, Hiecke[18] in 1981 proposed a new definition of pause, that it should not be regarded as the opposite of fluency, if appropriate, even as a normal part of fluency, will help speakers make less error and higher quality speech. Based on the previous research, Tissi took the characteristics of simultaneous interpretation into consideration and proposed its classification method of nonfluent phenomena.

Sound pauses: Tissi[15] divides sound pauses into fillers vocalized hesitations vowel and consonant lengthenings, and interruptions. Pilled words contain all sound forms of hesitation, such as "呃", "啊", "and" 嗯 " in Chinese, regardless of time. The phenomenon of vowel-consonant procrastination is more often seen in the process of impromptu English speech or medium to English interpretation, and its essence is also to gain more time for thinking. Interruption includes repeats (repetition of phrases, words, or part of the non-semantic repetition, not intentional for rhetorical meaning), restructuring (the correction of the part of the phrase, word, such as incorrect pronunciation, structure, and content), and false starts (suddenly interrupted the speaker to start a new sentence when the preceding sentence is incomplete).

Silent pause: Tissi believes that silent stops are gaps that can be measured objectively between consecutive statements. But in simultaneous translation, the pause at the beginning of the sentence cannot be counted as the silent pause, because it is due to the inevitable time difference. Silent pause can be divided into grammatical pauses communicative pauses and non-grammatical pause. The former play an important role in simultaneous interpretation, which can promote the meaning group division through pause, so as to assist the audience's understanding, while the latter is the intentional pause of the interpreter itself.

## 4. Experimental Design

### 4.1. Experimental Purpose

This study attempts to answer the following questions:

Does the difference in students' listening ability affect the performance of their English-Chinese simultaneous interpretation?

If there is an impact, how does the effect reflect in accuracy and fluency?

How should novice interpreters improve in the future?

## 4.2. Experimental Subjects

In this experiment, nine master students from different universities were selected as the experimental subjects. All the nine subjects had received more than one year of professional simultaneous interpretation training, and had passed at least the CATTI Level III interpretation qualification examination, and had the basic ability to participate in the test.

## 4.3. Experimental environment

Since the COVID-19 epidemic was still very serious when the experiment was conducted, and the subjects involved in the experiment were all located in different cities, the experiment was conducted online by Tencent Conference. The experimental audio is shared through the Tencent conference screen, and each experimental subject takes the device to record it, and transmits the audio back immediately after the end of the experiment.

## 4.4. Experimental Materials

### 4.4.1. Listening and Analysis Ability Evaluation Materials

In the determination of the test questions, it is necessary to test the questions of Listening ability and analysis ability respectively

dressing by screening. As a national translation talent evaluation system, CATTI is a setting tool for test questions

Very high authority and reliability. According to the study of Wang Yan[19], the CATTI (III) interpretation test belongs to the (semi-direct) semi-direct test, among which the comprehensive interpretation ability belongs to the part of the direct test, with high validity. This section includes five types of questions: judgment, short sentence options, chapter understanding, filling in the blanks, and listening and summary. The designers of dialogue listening choice questions often believe that there is called "question eye", "question eye" choice is influenced by the subjective, and a "question eye" cannot cover the whole voice content; — allows candidates to guess the student score "confused" probability[20] As a graduate student, the author cannot guarantee the rationality of making "question eye" and standard answers based on subjective experience when making judgment and choice type test questions. Therefore, the question type of judgment and choice is not the first choice of part of the question type setting of listening ability evaluation in this research. According to Wang Yongqing[21], with NMET and NMET (2) as the research object, in three listening tasks (single choice, information acquisition and dictation), dictation performance than the other two task types are more suitable for listening comprehension test, it has the highest factor load and the lowest error, namely, dictation can most effectively reflect the subject's ability to listening comprehension.

The analysis and understanding of the meaning of sentences, paragraphs or articles is due to the short sum of the listening and understanding process can not directly judge the subjects' listening comprehension, how to design a reasonable post-listening cognitive task

For the focus of listening ability research. Compared with other traditional cognitive tasks, the overview particularly requires the students to capture it completely. In the limited-time post-listening overview section, the post-listening overview method is used to test the students' English Listening ability. In various cognitive tasks, the post-listening overview is widely seen as a teaching for effectively assessing listening comprehension

Therefore, the evaluation of listening ability is divided into two parts, one is the listening blanks filling evaluation, the other is the English and Chinese after listening overview.

#### 4.4.1.1 Test materials

The author refers to the topic setting of the CATTI tertiary interpretation examination, and selects the evaluation form of the "fill in the blank" section

Type, collect English information, designed the "listening blank test paper". The audio of the test paper is from the October 23, 2020 Economist Weekly News Business section, which lasts for 2 minutes and 40 seconds, and contains 8 short bits of news. The paper, the original of 87 words, was divided into seven paragraphs, each with two to four blanks.

#### 4.4.1.2 Listening materials

In various cognitive tasks, the post-listening overview is widely regarded as a pedagogical test activity to effectively assess listening analysis ability

move. English learners in China also found that students outlined in their native language compared to English

The overview can better reflect the real English comprehension ability, so the mother language overview can be used as a kind of foreign language listening test

The author selected a brief speech on Speech Repository, the official interpreter training website supported by the EU Interpretation Department, as the listening overview test material. The audio duration is 2 minutes and 55 seconds, the theme is cybersickness, and the speech speed is 145 words / minute.

#### 4.4.2. English-Chinese Simultaneous Materials

In the selection of simultaneous interpretation materials, the author chose Bill Gates's speech at TED 2022 on the theme of "This COVID-19 could become the last pandemic". The full text lasts 11 minutes and 05 seconds, with a total of 1589 words and a moderate speed of 144 words / minute. Moreover, the theme is practical and not too professional. A few words related to background knowledge have been listed in a vocabulary (see Appendix B) and are distributed to the subjects before the same pass as pre-preparation for translation.

#### 4.4.3. Questionnaire Survey

Around the theme of the experiment, that is, the influence of listening ability on the English and Chinese simultaneous communication, the author designed the relevant questionnaire, and asked the subjects to fill in the simultaneous communication experiment immediately after the completion. The questionnaire contains the following six specific questions:

1) Please list the exams that you have passed (for example, TEM4 / 8, CATI interpretation / translation, etc.).

Have you practiced / touched the materials used in the experiment?

What do you think of the difficulty of the three test sessions (listening filling, English and Chinese reply, English and Chinese simultaneous communication)?

What factors do you think affect your translation output during the simultaneous interpretation process, so mistranslation, missing translation, and blocked expression fluency (i. e., fillers, repeats, restructuring, long pause, etc.) appear.

How do you view the role of English listening ability in interpretation, especially in the same cross?

How do you usually train your English listening and analysis ability?

#### 4.5. Experimental Procedures

This experiment was divided into three stages. The first stage is the listening assessment; the second stage is the simultaneous and the third stage is the questionnaire survey. Five minutes before the official start of the test, the author sent each subject the materials needed to fill in the experiment through the Internet, including the listening and blanks filling test paper, the simultaneous interpretation vocabulary list and the questionnaire survey.

The first stage of the listening ability assessment is divided into two parts. The first part is the listening filling in the blanks assessment. The author fills in the listening test paper (appendix). After explaining the evaluation content and process, the author played the listening audio



through the Tencent conference, and the subjects filled in the blank words they heard in the test paper through the listening analysis, with a total length of about 5 minutes. Then in the second part of the English-Chinese retelling, the author played the retelling audio through the Tencent conference. After listening to the audio, the subjects summarized the content they heard as completely and accurately in Chinese as possible, and recorded it with their own equipment, with a total length of about 6 minutes.

In the second stage of English-Chinese simultaneous interpretation, the author first gave five minutes to make the subjects familiar with the vocabulary provided, then shared the screen through Tencent Conference, played the simultaneous interpretation video, and recorded the whole process with their own equipment, and then saved it with a total length of about 16 minutes.

In the third stage of the questionnaire survey, after the subjects completed the simultaneous interpretation test, the author filled in the questionnaire on the spot and kept it, with a total length of about 15 minutes.

After completing the above three links, all the subjects should immediately respond at the request of the author, including the listening blanks evaluation answer paper, questionnaire, and English retelling audio and simultaneous audio.

## 5. Experimental Data Collection and Statistics

The processing of the experimental data mainly includes three parts: the listening ability score obtained from the listening filling-in score and the listening overview score, the simultaneous interpretation score obtained from the sum of the accuracy and fluency part of the English and Chinese simultaneous cross, and the statistics of the questionnaire results.

### 5.1. Statistics of Listening Ability Scores

#### 5.1.1. Statistics of listening-filling scores

Audio from the week of the Economist, October 23, 2020,

It is 3 minutes long and contains 8 short bits of news. The listening paper is the original English text, the total length of 365 words, is divided into 8 paragraphs, each paragraph has 1 to 3 gaps, each blank examines 1-4 words, the whole paper blank examines a total of 25 words. After receiving the listening filling in the blanks answer paper, the full score of each word was calculated for each subject and converted into a percentage system. See the listening fill-in Table 1:

Table 1. Listening-filling scores

SS	Listening blanks filling
A	76
B	88
C	84
D	64
E	84
F	92
G	88
H	96
I	96

### 5.1.2. Overview of the Score Statistics After Listening

The author first rewrote the recorded audio outlined by the subjects after listening, and then wrote the subjects with reference to the original text

Rate the overview of the information and the implementation of the subject logic.

#### 5.1.2.1 Overview scoring rules after listening

According to Su Wei[21] in his research on the overview after listening, the overview needs to identify and distinguish the main information and supporting information of the original text, determine the framework of the original text, make a comprehensive report on the results of the understanding stage, can use their own language, and elaborate the main information in the source text as concise as possible. Therefore, the author first extracted the full text framework from the original audio text after listening, and then marked the main information with a black bold annotation and the support information with a horizontal line. After completion, the author writes the translated speech frequency of the original audio content of the subjects in this article, and the score follows the following principles:

- 1) If a single information is basically or completely transmitted, included in 1, about half and included in 0.5;
- 2) Irrelevant or wrong information is not included, such as: far from the subject, wrong understanding or speculation

The information generated is included in 0;

- 3) Single semantic reconstructed translated information, although a small amount of source information is lost in details, but the meaningful equivalence is still included in 1; if the lost information is more, included in 0.5; completely subjective

Refactoring, off-subject, and included in 0.

- 4) For the integrated information, the source information is separately included in the small sentence.

Through the above way, the author counted the total and secondary information realization rate of each subject after listening to, and converted it into a percentage system form. But in the final score, because the original speaker has clearly explained the full-text framework at the beginning (I want to talk to you a little bit about what cybersickness is, why it occurs and offer you some solutions in case you've ever suffered from it.) Therefore, if you do not answer the full text framework, 50% of the score will be deducted after the score calculated by the above information volume. The overview results of the subjects are shown in Table 2:

**Table 2.** Overview results after listening

<b>SS</b>	<b>Listening and summary score</b>
A	68
B	77
C	80
D	84
E	82
F	77
G	86
H	89
I	94

### 5.1.3. Audiological Analysis Ability Score

After adding the listening blanks filling score with the postlistening overview score, the total listening ability score of each subject was obtained in the Meeting Table 3.

**Table 3.** Total score of listening ability

ss	Listening blanks filling	Listening and summary score	Listen to the total score
A	76	68	144
B	88	77	165
C	84	80	164
D	64	84	148
E	84	82	166
F	92	77	169
G	88	86	174
H	96	89	185
I	96	94	190

## 5.2. English and Chinese Simultaneous Interpretation Score Statistics

### 5.2.1. Information Accuracy Analysis

After the experimental samples are collected, reference Sun Xu (2010) defines the differentiation criteria between main information and secondary information in the doctoral thesis, and defines the information unit, main information and secondary information below.

Information unit: a small sentence with a relatively complete structure of meaning expression can be the master

A sentence, it can also be a separate sentence. Main information: it reflects the main position of small sentences in the meaning of the discourse, and reflects the main line of the author's logical intention. The loss of this information will lead to the rupture of the subject logic, resulting in understanding obstacles or incomplete information.

Secondary information: it reflects the secondary position of small sentences in the meaning of the discourse, mainly the subsidiary information that promotes the development of the main logic line, such as examples, supplements, explanatory information, repetitive information, redundant information and redundant information in speech skills, nonsense information, etc. Such loss of information does not cause understanding barriers or the speaker's subject logic breaks.

Therefore, the author divided the main and secondary information points in the original speech as follows, in which the main information is expressed in bold words and the desired information is underlined.

Subsequently, the author has rewritten the recorded audio overview of the subjects after listening, and scored the realization of the main information and secondary information in the subjects' overview.

#### 5.2.1.1 information accuracy

According to statistics, there are 131 main information and 104 secondary information. Under the guidance of interpretation theory, the author records the main information and secondary information and total information translated by each translator, and divides the total information translated by the subject by the total information of the source language, and obtains the main information of the subject paragraph, which is converted into a percentage form (keeping two decimal places) as the accuracy score. Final primary information accuracy,

secondary information accuracy, and overall accuracy scores for each subject are shown in Tables 4.

**Table 4.** Overall accuracy score

ss	Main information points	Primary information accuracy score	Secondary information points	Secondary information accuracy score	accuracy score
A	73	55.7	37	35.6	91.3
B	90	68.7	66	63.4	132.1
C	70	53.4	32	30.7	84.1
D	100	76.3	51	49	125.3
E	86	65.6	53	50.9	116.5
F	98	74.8	55	52.9	127.7
G	105	80.1	65	62.5	142.6
H	116	88.5	75	72.1	160.6
I	120	91.6	91	87.5	179.1

### 5.2.2. Fluency Analysis

According to the above Tissi nonfluent classification method, we know that good pause in the process of interpretation helps to eliminate the fuzzy content on syntax, help segmentation speech level, help to emphasize the specific content, to achieve the effect of audience attention and auxiliary understanding, but for student interpreter, often is due to a variety of reasons, hinder the audience understanding. Therefore, referring to the specific pause situation of the translators in the experiment, the author divided the pause phenomenon in this experiment into silent pause, filling words, recombination, repetition and start error for count statistics (see Table 5), and deducted from the overall accuracy according to 0.5 points / time, and finally got the total score of English and Chinese interpretation (see Table 6).

**Table 5.** Statistics of non-fluent phenomena

ss	Fill words	recombination	repeat	Started the error	Silent pause	Total number of times	Fluent total points deducted	Listen to the total score
A	12	4	6	10	15	47	23.5	144
B	3	6	4	6	8	27	13.5	165
C	6	7	5	4	6	28	14	164
D	2	3	6	5	4	20	10	148
E	4	6	3	2	3	18	9	166
F	4	2	4	8	6	24	12	169
G	16	6	2	1	2	27	13.5	174
H	3	7	3	3	4	20	10	185
I	7	4	3	2	1	17	8.5	190

**Table 6.** Total score of the same interpretation

ss	accuracy score	Points are deducted for simultaneous interpretation fluency	Total score of the same pass
A	91.3	23.5	67.8
B	132.1	13.5	118.6
C	84.1	14	70.1
D	125.3	10	115.3
E	116.5	9	107.5
F	127.7	12	115.7
G	142.6	13.5	129.1
H	160.6	10	150.6
I	179.1	8.5	170.6

### 5.3. Questionnaire Survey Results

According to the questionnaires completed by the nine subjects after the test, all the subjects had never been exposed to the Listening filling in the blanks, the overview after listening, and the original audio from English and Chinese, so all the nine data were available. Among them, the difficulty is from difficult to easy to order, eight subjects said that the English and Chinese interpretation, Listening blanks filling, after listening overview, one subject said that the English and Chinese interpretation, overview after listening, Listening blanks filling. In general, all the nine subjects said that the difficulty of all the materials in this test was generally moderate, and there was no complete inability to open it.

## 6. Data Analysis

Data analysis was performed using IBM SPSS Statistics. The main analysis method is to calculate the scores of each stage and the realization rate of subject simultaneous interpretation information. The summarized data is input into SPSS software, and the correlation coefficient between the subject listening ability evaluation data and the realization rate of English and Chinese simultaneous interpretation information is obtained through "Pearson's bi-variate correlation analysis". This method was also used to count the significant correlation between the subject listening ability data and other indicators in the simultaneous transfer transfer analysis data.

### 6.1. Correlation Analysis Between Listening Ability and Simultaneous Misinterpretation

Through the preliminary observation of the data mentioned above, we can see that there is a certain correlation between the level of listening ability and the final performance of English-Chinese simultaneous interpretation. The author used the IBM SPSS Statistics statistical software to further analyze the results, and the analysis results obtained are shown in Table 7, Table 8, and Table 9:



**Table 7.** Correlation between total score and listening score, Listening filling and listening and summary

		correlation			
		Total score of the same pass	Listen to the total score	Listening blanks filling	Listening and summary score
Total score of the same pass	Pearson correlation	1	.807**	.563	.841**
	Significance (double-tail)		.009	.114	.004
	The number of cases	9	9	9	9
Listen to the total score	Pearson correlation	.807**	1	.888**	.787*
	Significance (double-tail)	.009		.001	.012
	The number of cases	9	9	9	9
Listening blanks filling	Pearson correlation	.563	.888**	1	.415
	Significance (double-tail)	.114	.001		.267
	The number of cases	9	9	9	9
Listening and summary score	Pearson correlation	.841**	.787*	.415	1
	Significance (double-tail)	.004	.012	.267	
	The number of cases	9	9	9	9

In Table 7, Total score of simultaneous interpretation and listening and analysis score ( $P=0.009 < 0.05$ ), Listening and summary score ( $P=0.004 < 0.05$ ) had a significant correlation, And the correlation coefficient is higher than 0.8 is highly positive correlation, There was no significant correlation with the Listening filling score ( $P=0.563 > 0.05$ ); Total score and listening score ( $P=0.001 < 0.05$ ), Listening and summary score ( $P=0.012 < 0.05$ ) had a significant correlation, The correlation coefficient with the Listening filling score of  $0.888 > 0.8$  was a highly positive correlation, A correlation coefficient with a Listening and summary score of  $0.6 < 0.787 < 0.8$  was a moderate positive correlation.

**Table 8.** Correlation between Listening filling and simultaneous interpretation accuracy and fluency

		correlation		
		Listening blanks filling	accuracy score	Total number of simultaneous interpretation fluency
Listening blanks filling	Pearson correlation	1	.574	-.307
	Significance (double-tail)		.106	.422
	The number of cases	9	9	9
accuracy score	Pearson correlation	.574	1	-.627
	Significance (double-tail)	.106		.071
	The number of cases	9	9	9
Total number of simultaneous interpretation fluency	Pearson correlation	-.307	-.627	1
	Significance (double-tail)	.422	.071	
	The number of cases	9	9	9

In Table 8, there was no significant correlation between simultaneous interpretation accuracy ( $P=0.106 > 0.05$ ), between simultaneous interpretation fluency ( $P=0.422 > 0.05$ ), and not between simultaneous interpretation fluency ( $P=0.071 > 0.05$ ).

**Table 9.** Correlation between Listening and summary and simultaneous interpretation accuracy and fluency

		correlation		
		accuracy score	Total number of simultaneous interpretation fluency	Listening and summary score
accuracy score	Pearson correlation	1	-.627	.803**
	Significance (double-tail)		.071	.009
	The number of cases	9	9	9
Total number of simultaneous interpretation fluency	Pearson correlation	-.627	1	-.815**
	Significance (double-tail)	.071		.007
	The number of cases	9	9	9
Listening and summary score	Pearson correlation	.803**	-.815**	1
	Significance (double-tail)	.009	.007	
	The number of cases	9	9	9

\*\* . The correlation was significant at level 0.01 (two-tailed).

In Table 9, the correlation coefficient of 0.803 ( $P=0.009 < 0.05$ ), the correlation coefficient of -0.815 ( $P=0.007 < 0.05$ ), and it was not significantly associated with simultaneous fluency ( $P=0.071 > 0.05$ ).

The above data showed that there was a strong linear correlation ( $p < 0.05$ ) between the total performance ( $p=0.009 < 0.05$ ), the overview score and  $p=0.004 < 0.05$ ), while the subjects was not correlated with the overall performance ( $p=0.563 > 0.05$ ). It is more observed that the subjects had a strong linear correlation with the simultaneous interpretation accuracy ( $p=0.009 < 0.05$ ) and the simultaneous interpretation fluency ( $p=0.007 < 0.05$ ). However, the listening airfilling score was not linear correlated with the simultaneous interpretation accuracy ( $p=0.106 < 0.05$ ) and the simultaneous interpretation fluency ( $p=0.071 < 0.05$ ).

Thus, in this experiment, the difference of students' listening ability did have an impact on their English-Chinese simultaneous interpretation performance, and there was a significant linear positive correlation between the two. But listening ability focuses on the two aspects, namely the new words as the test object of the listening ability, the subject with cross accuracy and fluency influence no significant difference, and with the analysis ability of paragraph logic as the object, the subject with cross accuracy and fluency have significant difference.

## 7. Conclusion

This study explores the missed interpretation of students' listening ability between English and Chinese characters

influence. The following conclusions are obtained through the experiments:

1. The difference of students' listening ability is significantly positively correlated with the overall performance of English and Chinese interpretation. Students with strong listening ability have high accuracy and fluency in English and Chinese interpretation, so the overall quality of the students with poor listening ability have low accuracy and fluency, so the overall quality is low.

2. The listening ability of the students translators with difficult words has no significant difference in the influence on the same interpretation between English and Chinese, but the analysis ability of the paragraph logic is the significant difference.

The findings of this paper can confirm that it is very important for students to improve their listening ability, mainly for their listening and overview ability, which is very important to improve their simultaneous interpretation accuracy and fluency. Student translators' ability to distinguish the main and secondary information is not strong. Only on the basis of improving the listening ability, can students' translators have the opportunity to choose the information and better use strategic omission to improve the quality of interpretation.

As an exploratory study, this paper enriched the listening ability and the correlation between the experimental study, for the related research has certain supplementary value, for students to understand the relationship between listening ability and performance and improve the quality of interpretation has certain theoretical and practical significance.

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