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The Influence of Flow on Interpreting Quality

A Case Study of Student Interpreter from the Perspective of Cognitive Science

Abstract: Flow refers to a state in which people are so involved in an activity that nothing else seems to matter, which is a concept in cognitive studies and interpreting, to some extent, could be seen as a flow activity. This concept has been widely applied in the analysis of student performance and foreign language teaching. However, it has not been completely tested in translation and interpreting studies. Therefore, through discourse analysis and semi-structured interviews, this study explores the influence of flow on interpreting quality by adopting a case study of a student interpreter. Presumptions are raised and verified: (1) If the interpreting materials are beyond the competence of the interpreter, anxiety may occur, resulting in a decrease in interpreting quality. (2) If the interpreting materials are under the competence of the interpreter, boredom may occur, resulting in a decrease in interpreting quality. (3) If the interpreting materials match the interpreter's competence, the student interpreter enters the flow state, and the interpreting quality reaches the maximum. Flow is of great significance in student interpreters' interpreting quality, and only when a student interpreter's competence matches with the challenge, flow is likely to occur. Suggestions and implications for further research are put forward.

Keywords: cognitive approach; flow; interpreting quality; student interpreter; discourse analysis

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1 Introduction

Cognitive approaches to the study of interpreting follow the tradition of cognitive psychology, a concept introduced by Ulric Neisser (1967) to define the branch of psychology attempting to describe how humans take in and process information. Scholars following cognitive approaches are interested in the processes by which humans acquire knowledge of the world around them. When it comes to the study of interpreting, they are interested in the mental activities underlying the interpreting task, proposing theories predicting certain outcomes, and models describing the processes involved in producing these outcomes (Pöchhacker, 2015: 56). At present, scholars begin to try to carry out empirical research regarding the cognitive process of interpreting by combining interdisciplinary, quantitative and qualitative methods. Flow is a concept in cognitive studies and interpreting, to some extent, could be seen as a flow activity. Flow refers to a peculiar dynamic state-the holistic sensation that people feel when they act with total involvement (Csikszentmihalyi, 1975). Previous studies have shown that when interpreters enter into the flow state, the interpreting quality could be greatly improved (Wang, 2018: 76). Therefore, this article introduces flow theory in cognitive psychology, through hybrid empirical research methods of discourse analysis, participant's introspection and semi-structured interview to explore interpreting flow and its influence on interpreting quality, aiming at providing a reference for the psychological research of student interpreters and development of interpreting education.

2 Literature Review

In this section, cognitive research on interpreting, flow theory and its application in interpreting studies will be reviewed.

2.1 Cognitive Research on Interpreting

Reed (1996: 4) defines cognition as the acquisition and use of knowledge, which involves many mental skills. How cognition works in the interpreting process has always been a heated topic through the development of interpreting studies.

Compared with Western countries, the development of interpreting studies in China starts relatively late and the interdisciplinary research on interpretation and cognitive psychology per se is even later. Early Chinese interpreting theories take shape by adopting and integrating various interpreting theories abroad. Liu makes a cognitive analysis of interpreting in light of Wittgenstein's linguistic view and considers interpreting to be an empirical discipline that is closely related to cognitive science (2004). Xiada model of interpreting (1999) is proposed on the basis of Gile's Effort Models (1983).

In recent years, increasingly more Chinese scholars have emphasized cognitive approaches to interpreting. Zhang (2006) carries out the questionnaire to understand interpreters' opinions towards the relationship between memory and interpreting in the natural environment. The interpretive theory is also of great research significance (Wang, 2008; Zhang, 2009, 2010, and 2011). Metacognition has also aroused the attention of several Chinese scholars (Wang, 2015; Liang & Chai, 2017; Xu & Mu, 2017) while eye-tracking has served as the basis for many pieces of research (Kang & Lian, 2020; Su et al., 2021; Lu & Zheng, 2022).

The publication of monographs also contributes to the development of cognitive interpreting studies in China. Zhang (2010) analyzes the process and reasons for the emergence, development, prosperity and gradual silence of the interpretive school. In 2020, based on the Cognitive Psychology of Interpreting (CPI), Kang reviews the research on interpreting cognition at home and abroad from a diachronic perspective. Wang (2019) introduces some basic processes of traditional cognitive theory and cognitive psychology. Meanwhile, he focuses on the study of the interpreting process (2019) as well as interpreting anxiety (2019).

The concept of Cognitive Interpreting Studies (CIS) was formally put forward by Kang Zhifeng. CIS is the inheritance and development of CPI, which is formed from the interdisciplinary study of interpreting and cognitive psychology (Kang, 2018). It has not only retained the scientific tradition of interdisciplinary studies combining the subject of interpreting with cognitive psychology and so on, but also figured out a new way to achieve synergism in interpreting (Kang, 2019). However, flow, as a typical cognitive activity, has not been fully applied to CIS.

2.2 Flow Theory

Mihaly Csikszentmihalyi, considered one of the co-founders of positive

psychology, was the first to identify and research flow. In his words, flow is a state in which people are so involved in an activity that nothing else seems to matter; the experience is so enjoyable that people will continue to do it even at great cost, for the sheer sake of doing it (Csikszentmihalyi, 1990). This flow experience makes persons feel that they are in control of their own decisions and actions while sensing enjoyment and exhilaration during the activity. The Model of the Flow State shows that when a person believes that his action opportunities are too demanding for his capabilities, the resulting stress is experienced as anxiety; when the ratio of capabilities is higher, but the challenges are still too demanding for his skills, the experience is worry. The state of flow is felt when opportunities for action are in balance with the actor's skills; the experience is then autotelic. When skills are greater than opportunities for using them, the state of boredom results; this state again fades into anxiety when the ratio becomes too large (Csikszentmihalyi, 1975).

Flow theory has already been applied in the analysis of student performance and foreign language teaching by many Chinese scholars (Li & Liu, 2012; Wang & Feng, 2013; Cai, 2017; Cai, 2018; Liu, 2018; Weng, 2019). Zhang et al. (2018) introduce the mediation effect of flow experience into the language virtual simulation experiment teaching. Wang et al. (2019) explore the influence of two types of loads on flow experience and performance by manipulating intrinsic load through word compound and external load through presentations. Based on the acceptance and use of Unified Integration Theory (UTUAT) and combined with the mobile situation and the theory of flow experience, Xu and Zhang (2020) make an in-depth study of users' online learning situation and technology acceptance perception behavior in English. Gao et al. (2022) select 101 first-year English majors as the research objects and explore the flow state level of learners in the process of English reading, its influencing factors and its relationship with reading performance.

Flow's significance in English language learning has already got verified through the above research. With the reform and opening-up, the demand for professional English interpreters is also increasing. In a state of high demand, the study and training of interpreting are also urgent and necessary. Thus, applying flow in interpreting studies could have its exclusive colors.

2.3 Flow Theory in Interpreting Studies

However, flow theory has not been completely tested in translation and interpreting studies. Mehdi et al. (2011) examine the amount and quality of

flow experienced by trainee translators while translating different text genres. Based on Csikszentmihalyi's flow theory, Zhao (2011) tries to explore how to stimulate students' flow experience, cultivate their translator consciousness and improve the effect of classroom translation education through multimedia methods. Qian (2011) analyses the flow in experiential translation education, which is helpful to find ways to improve learners' translation ability. Based on self-schema theory and flow theory, Wang (2018) explores the cognitive psychological differences between professional interpreters and student interpreters.

Meanwhile, there are some postgraduate dissertations taking flow and interpreting as the research subject and carrying out empirical studies. Pan (2022) focuses on 77 postgraduate students studying interpreting at Beijing Foreign Studies University, using a combination of quantitative and qualitative research methods. By exploring the correlation between interpreting anxiety and flow experience, she notes that researchers and practitioners could consider ways to reduce interpreting anxiety from different dimensions of flow, so as to improve the interpreting quality. From the perspective of flow theory, Zeng (2018) uses the FSS flow scale to measure the intensity of flow in the center of interpretation and the DFS flow tendency scale to explore the tendency to experience flow. The experimental results show that the tendency to experience flow has a positive effect on the intensity of flow experience.

Currently, flow is more frequently combined with translation studies and its influence on student interpreters' performance has not been fully dug out. In addition, Interpreting studies mostly focuses on the interpretation itself and pays relatively less attention to the interpreter.

2.4 Presumption

Wang (2018: 76) concludes that flow is particularly important for interpreters to achieve good interpreting results. Combining it with the Flow State Model, the following presumptions are raised:

(1) If the interpreting materials are beyond the competence of the student interpreter, anxiety may occur, resulting in a decrease in interpreting quality.

(2) If the interpreting materials are under the competence of the student interpreter, boredom may occur, resulting in a decrease in interpreting

quality.

(3) If the interpreting materials match the interpreter's competence, the student interpreter probably enters the flow state, and the interpreting quality could reach the maximum.

3 Research Methodology

3.1 Research Question

Based on the presumption raised in Section 2.4, the following questions will be answered:

(1) Could the presumption be verified through the student interpreter's performance?

(2) If verified, under the three states, what aspects of the student interpreter's performance are affected?

(3) How could flow theory be applied to interpreting education?

The collection of discourse, research materials and research instruments would be illustrated in the following sections.

3.2 Data Collection

The discourse was collected from a previous experiment made by the authors, which took a fourth-grade English major in a comprehensive college in Jiangsu Province as the object. She has passed the Test for English Major Band Eight and has participated in interpreting classes for 1 semester. She shows a great interest in interpreting but has not taken part in any qualification tests for interpreting before.

In that case study, the student interpreter was invited to do the interpretations on three successive days. All the processes were carried out and recorded through the online platform Tencent Meeting. On the first day,

she was asked to finish interpreting at the intermediate level. On the second day, she was asked to finish the interpreting materials for the elementary level and on the last, she was required to finish the interpreting materials for the advanced level. It should be noted that the time for interpreting was limited and the recordings were only played once. The student interpreter was allowed to take notes but no dictionaries were allowed during the process.

After the experiment was finished, the source text and the student interpreter's interpretations were transcribed and paralleled for further analysis.

3.3 Research Materials

Three levels of interpreting materials were chosen. The Shanghai Interpretation Accreditation (SIA) and the China Accreditation Test for Translators and Interpreters (CATTI) are two standard tests for Interpreters in China. SIA is a certificate examination program independently developed by China, focusing on the field of foreign language interpretation. It was first opened in 1995 and was listed in the "Shanghai Scarce Talents Training Project" at the beginning of its debut (http://www.shwyky.net/portal/isia/portal/PortalMainAction/toMenuMain.do?menuid=1). It has intermediate and advanced levels. Students who passed the intermediate level could be engaged in liaison interpreting, international seminar interpreting, foreign affairs reception, foreign trade business negotiations and other work.

CATTI is a national vocational qualification examination commissioned by the Ministry of Human Resources and Social Security of the People's Republic of China and administered by the China Foreign Language Administration. It has been included in the Catalogue of Vocational Qualifications of The State Council of China. It is a universal professional qualification examination for the whole society and is the evaluation and recognition of the bilingual translation ability and level of the participants in interpreting or translation (http://www.catticenter.com/cattiksjj/1394). It has three levels. Level 3 requires interpreters to be able to complete general interpreting work while Level 2 requires interpreters to independently undertake interpreting work with a certain difficulty.

The authors discuss the difficulty of interpreting materials with expert groups and reach an agreement about the three levels in this research as follows.

Considering the standardization of the interpreting materials, the first level material was from SIA (Intermediate Level). The second's material was

chosen from Interpreter Level 3 of CATTI while the third level's interpreting material was selected from Interpreter Level 2 of CATTI. To ensure the validity of the test, the three levels of interpreting materials were controlled at the same length (around 30 minutes). Considering the ability of the student interpreter, simultaneous interpreting was not included. All the interpreting materials were in consecutive mode.

To verify that the difficulty of the three level's materials caters to the student interpreter's competence, interpreting materials similar in the same level from the same tests were extracted for the student interpreter's feedback. She agreed that level 1 was relatively easy for her, level 2 as moderate and level 3 as difficult. Therefore, the 3 levels were named elementary level, intermediate level and advanced level in the following sections.

3.4 Research Instruments

Flow-Dimension-Open-Ended form, interview and discourse analysis tend to be the main research instruments.

3.4.1 Flow-Dimension-Open-Ended Form

As this research focuses on the case study, a flow-dimension-open-ended form is applied. This post-task form included eight open-ended questions (see Appendix 2), based on flow dimensions, and solicited and probed the participants' reactions as experienced during each task. The participant was allowed to provide the required answers either in Chinese or English.

Mehidi et al. (2011) have verified the reliability of the flow-dimension-open-ended form. Based on it, the authors discussed with the expert group and makes adjustments to the form. The Flow-Dimension-Open-Ended Form was pilot-tested by five postgraduates majoring in Translation and Interpreting at a comprehensive college in the United Kingdom. The questions were relatively understandable as well as considered intelligible. Meanwhile, to avoid the influence of the passing of time on the results of the form, the participant will be asked to finish the form immediately after interpretation.

In the case study, the interpreting processes were not interrupted and every day after finishing the interpreting, she received the instruction of filling out the form.

3.4.2 Interview

Interviews are a common method employed in qualitative research generally, and thus in the interpreting studies field specifically (Hale and Napier 2013). A key purpose and strength of the method is to elicit the experiences, perceptions and feelings of research participants in their own words and to highlight their concerns, rather than predetermining the features of interest to the research. Findings from qualitative interviews are not generalizable in the way that quantitative research hopes to be; rather, their 'generalisability' lies in the analysis and cogency of the theoretical reasoning that underpins them (Edwards & Holland, 2013).

In a typical semi-structured interview, the interviewer has an interview schedule with a list of questions or series of topics they want to cover, but there is flexibility in how and when the questions are put and how the interviewee can respond. These interviews allow space for interviewees to answer on their own terms, but provide some structure for comparison across interviewees in a study (Pöchhacker, 2015: 210).

The answers to the three forms mentioned in 3.4.1 as well as the recordings of the interpreting process were combined to set up the semi-structured interview questions. One day after the experiment, the student interpreter was invited to answer the interview questions.

3.4.3 Discourse Analysis

Discourse analysis offered descriptive interpreting studies as a means of discovering regularities of interpreter behaviour. Moving away from the focus on cognitive approaches, it focused on the product of language use (text, talk) as evidence of the process (discourse) and of interpreter decision-making and strategies (Pöchhacker, 2015: 111).

The recordings of the source text have given clear instructions. After the student interpreter heard each sentence or paragraph, she would hear a signal "beep" and then begin her interpretations. Based on the recordings, the interpretations of the three stages were transcribed and paralleled. The student interpreter's performance in the three stages would be analyzed. The authors cited the source text before the sound "beep" and the student interpreter's corresponding interpretations.

4 Analysis and Discussion

4.1 Interpretations for the Intermediate Level

On the first day, the student interpreter was asked to finish the interpreting for the intermediate level. The overall interpreting quality was quite ideal, which could be seen in the two following examples, one from English to Chinese and one from Chinese to English (cf. Table 1).

Table 1: Interpretations for the Intermediate Level

Source Text	Target Text
Ireland has a family-based dairy industry with an emphasis on safety and harmony with nature. In 2015, Ireland beat out New Zealand to become the second-largest supplier of infant milk powder to China. Many Chinese friends asked me what makes Irish dairy products stand apart from those of other countries. Well, Ireland is a natural location for the dairy industry. It has a mild climate and it's covered in green grass, which means animals feed on natural sources and they're outdoors 90% of the year.	爱尔兰为很多家庭提供乳制品，强调安全与自然和谐。自 2015 年起，他们的婴儿奶粉就大批量出口到了中国，(pause) 仅次于新西兰。很多中国朋友问我，为什么爱尔兰的乳制品可以在一众国家中脱颖而出。那是因为爱尔兰有得天独厚的自然环境，温和的气候，绿草，意味着动物以天然资源为食，一年 90% 的时间都在户外。
我很荣幸出席今天的社会论坛。中国有 8500 多万残疾人，对于残疾人的人权保障，我有很多想法与大家分享。我是一个残疾人，我 5 岁时因病致残，从此再也没能站起来。那时的我因为残疾无法上学，我感到非常孤独。	I am honored to be here to take part in the social forum. In China, there are more than eight hundred and fifty million disabled people and I have many thoughts to share with you about the human rights of the disabled people. I am a disabled person. I was disabled by an illness at five and I could not stand up since then. I could not go to school due to disability, which made me very lonely at that time.

It can be seen from the transcriptions that in the interpretations from English to Chinese, the student interpreter grasped most of the information and figured the statistics correctly, including "2015" and "90%". Apart from interpreting correctly, the student interpreter paid attention to the elegance of the interpretations. For instance, "stand apart from those of other countries" was interpreted as " 在一众国家中脱颖而出 " and " 得天独厚 " was added to modify "a natural location". The usage of the Chinese four-character idiom catered to Chinese language conventions. Even though some information was omitted such as "the second-largest supplier", the student interpreter adopted

" 仅次于 " to express the same meaning.

4.2 Interpretations for the Elementary Level

When it comes to the Chinese-to-English interpretation, the student interpreter clearly interpreted the information from the source text. As for the numbers "8500 多万 " and "5 岁 ", she got them right. The opening sentence " 我很荣幸出席今天的社会论坛 " is a typical feature of a lecture or presentation and the student interpreter interpreted it in a standard form. However, some of the words were repetitive, but the overall quality of the interpretations was quite good and without distortions from the source text.

Then the second day, the student interpreter was asked to finish the interpretations for the elementary level. Nevertheless, the interpreting quality was not quite satisfactory and two examples from English-to-Chinese and Chinese-to-English were extracted in Table 2.

Table 2: Interpretations for the Elementary Level

Source Text	Target Text
The theme of this year's World Tourism Day is tourism—linking cultures". Tourism plays a powerful role in building international understanding and mutual respect.	今年世界旅游日的主题是旅游，(er) 旅游业能够将，(er)，世界旅游日将旅游与文化连接在一起，有利于塑造综合国力以及……
三国演义是中国古典文学的代表作之一，三国故事很早就开始在民间进行流传并被变成戏曲上演。	The (pause) The stories of three countries is a representative of Chinese classical literature. It began to spread among people. (pause) A lot of years ago, it was transformed into operas.

Compared with the interpretations of the intermediate level, the sentences were relatively shorter. However, the students interpreter tended to have more pauses in her interpretations. As for the English-to-Chinese interpretation, the student interpreter missed the information of "tourism—linking cultures" at first and then supplemented it. "International understanding" was misinterpreted as " 综合国力 " and due to the limitation of time, "mutual respect" was not interpreted as the signal "beep" sounded.

The Chinese source text only consists of two sentences. The student interpreter misinterpreted " 三国演义 ", thus causing miscomprehension. Pauses also became a feature in the target text, resulting in dysfluency.

4.3 Interpretations for the Advanced Level

On the last day, the student interpreter finished the interpretations for the advanced level. Compared with the intermediate level and elementary level, the sentences were quite long with more numbers and dense information (cf. Table 3).

Table 3: Interpretations for the Advanced Level

Source Text	Target Text
Investment in infrastructure is key to countries to follow through this transition. However, countries have to step up their efforts in productivity promotion, meaning that it has to make sure the good use of input instead of only focusing the amount of input. For the past 10 years productivity growth accounted for 30% of economic growth. Innovation is what needs to be promoted together with high-quality infrastructure as well as human capital. Innovation is getting more and more important as a country develops its economy. It helps with creating new products and more values in products, in turn will even further economic development and increase wage level.	在转型中，基础设施建设是非常重要的一环，它比单纯的经济增长要更为重要一些，亚洲国家不应该把眼光单纯的局限于(er)输入量，而是应该聚焦于基础设施的高质量发展和提高 (pause) 人均生产总值。创新也是非常重要的，我们应该给予较高的重视。
中国的高铁正处于世界的领先地位，中国仅用了 10 年的时间，高铁网络便已覆盖全国，横跨长度达 2.2 万公里，占世界高铁总长度的 65%。从首都北京到最大的都市上海，高铁长达 1300 公里，时速 350 公里，票价仅仅相当于 70 欧元，这深刻的改变了中国人们的出行方式。	Chinese subway has taken the lead (er) in the world for more than ten years, China has built a high-speed subway across the country, which is more than (sigh), which is longer than the 65% of the world. (pause) The subway from the capital Beijing to the biggest city Shanghai is 1.3 hundred kilometers long and it can reach 3.5 hundred kilometers per hour. And the price is only 60 (pause) euros. The high-speed subway has changed the way of transport (pause) of Chinese people.

From the English-to-Chinese interpretations, the student interpreter left out the two numbers "10 years" and "30%". The contents were not complete, especially regarding "innovation". The student interpreter only concluded as "创新也是非常重要的，我们应该给予较高的重视" and the descriptions of "It helps with creating new products and more values in products, in turn will even further economic development and increase wage level" have not been included at all.

The same situation appears in Chinese-to-English interpretations as

well. The student interpreter tried to obtain the numbers, but only "65%" and "350 公里" were maintained. Meanwhile, "占世界高铁总长度的 65%" was wrongly interpreted as "which is longer than the 65% of the world". The long pauses also influenced the interpreting quality, which is an embodiment of dysfluency.

Overall, the student interpreter tended to have the best interpreting quality during the interpretations of the intermediate level, which was the time she entered the flow state. However, the interpreting quality of the elementary and advanced levels was not satisfactory, with the latter being relatively worse, which indicated the time she became bored or anxious. The discourse analysis further proved the presumption proposed.

4.4 Findings from Flow-Dimension-Open-Ended Form and Interview

As previously mentioned, the qualitative phase of the study included two main procedures. The first procedure focuses on coding the data obtained from the Flow-Dimension-Open-Ended Form filled out by the student interpreter. The second procedure covers the interview with the student interpreter about her responses to the three interpreting materials.

The student interpreter's answers to the forms have verified the presumptions raised. She further confirmed her feelings about these three stages in the interview.

From her perspective, the interpreting materials of the advanced level have too many terminologies and complicated numbers, which were hard to take all of them down, leading to pauses and dysfluency. She tended to feel a sense of anxiety which further led to the loss of source text. She was aware of the loss of information but the more anxious she got, the more difficult it was for her to take notes, resulting in missing keywords. On the other hand, the interpreting materials for the elementary level tended to be relatively easy and caused the feeling of boredom, resulting in distraction. Once distraction occurred, it was hard for her to focus. Therefore, she missed some parts of the source text and she was prone to be trapped by one or two unfamiliar vocabularies, such as "三国演义". As for the intermediate level, she thought she had the best performance. As the topic of the texts drew her attention, she was devoted during the entire process. Meanwhile, she thought the difficulty of the materials was moderate and suitable compared to her current interpreting

skills. Although there were new words, they were not hard to tackle as she could understand combing the overall context and she could memorize most of the contents (especially numbers) to interpret fluently and successively.

It is also worth mentioning that the student interpreter thought that she was more focused when interpreting from English to Chinese than from Chinese to English as she was more fluent in her mother tongue, Chinese.

5 Implication and Prospect

5.1 Implication

The results of the experiments confirm the presumption that the student interpreter is close to or enter into the flow state and performs best when her skill is in balance with the challenge. However, when the skill surpasses the challenge, boredom will occur and otherwise, anxiety may happen, both resulting in a decrease in interpreting quality.

In conclusion, flow is of great significance in student interpreters' interpreting quality, and only when a student interpreter's competence matches with the challenge, flow is likely to occur. Based on this, some illuminations could be proposed for interpreting education. Teachers should give students some instructions about how to approach or enter the flow state. Before entering the flow state, emphasis could be put on choosing proper interpreting tasks and interpreting strategies; when entering the flow state, teachers should lead students to emerge in the interpreting tasks to form control over the interpreting process; and after the flow state, teachers should give students feedback to improve their confidence. Choosing interpreting materials suitable to students' capabilities could help them enter the flow state to further cultivate their interpreting skills and enhance their interest in interpreting learning.

5.2 Limitation

The research focuses on the discourse collected from a case study. If possible, self-built corpora could be applied and the involvement of more student interpreters could contribute to reaching general conclusions.

5.3 Prospect for Further Research

This study concentrates on an initial probe into whether flow existed in student interpreter's interpretation and exerted influences on interpreting quality, which was illustrated from a simple sample of the experiment. In future research, experiments of larger scope could be applied to collect more abundant data for analysis. The topics and genres of interpreting materials could also be taken into consideration. The qualitative finding also shows that the flow state may be different in Chinese to English and Chinese to English interpretation. However, this study does not consider the language direction. Moreover, the concrete criterion of interpreting quality that flow influences, such as communication effect, cohesion and coherence, register, fluency, etc. is also worth further exploration.

Meanwhile, the positive influence of flow could also be applied to the interpreting class. For instance, one class could be divided into 2 groups with only 1 group receiving the instruction of interpreting flow to make a comparative study.

To promote the development of interpreting professionalization, it is vital to help student interpreters realize the transition to professional interpreters, from which flow cannot be neglected for improving their interpreting quality.

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Bionotes

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Appendix 1 Interpreting Material

The whole transcriptions of the interpreting materials could be obtained by emailing the authors of this paper.

Elementary Level: The materials were extracted from the compilation of Shanghai Intermediate Interpretation Accreditation (Test 1603 and Test 1809).

Test 1603: Two English passages describe the impact of sport on girls and parts of a speech that highlights the significance of tourism. Two Chinese passages talk about the cooperation between China and Britain and Chinese literature, Romance of the Three Kingdoms.

Test 1809: English Passage one describes communication patterns in different cultures. English passage 2 illustrates how to improve your mood and help you return to good shape after the many indulgences over the holiday period. Two Chinese passages introduce greetings and the development of shared bicycles in China.

Intermediate Level: The materials were extracted from Interpreter Level 3 of CATTI in June 2018. The dialogue illustrates the college entrance examination. The English passage is a speech about Irish dairy products exported to China. The Chinese passage is a speech on the social forum of the United Nations Human Rights Council.

Advanced Level: The materials were extracted from Interpreter Level 2 of CATTI in June 2018. The English passage is a speech about how the Asia Economy could achieve new breakthroughs. The Chinese passage is a speech about the latest four greatest inventions in China.

Appendix 2 Flow-Dimension-Open-Ended Form

1. What did you find challenging or too hard in this task?
2. What did you find that was boring or too easy?
3. What made this task interesting to you?
4. What made this task not interesting to you?
5. What helped you to focus on this task?
6. What made you lose focus during this task?
7. What parts of the task could you control?
8. What parts of the task could you not control?

Appendix 3 Semi-structured Interview Questions

It should be noted that the questions listed are only part of the interview and the questions are adjusted according to the student interpreter's answers.

1. Which stage do you think had the best performance? Why?
2. How do you feel when doing these tasks?
3. Are you satisfied with your performance during the three stages?
4. Which aspects do you find satisfied with?
5. Which aspects do you find not satisfied with?
6. Which aspects do you think could be improved during the three stages?
7. Do you think flow could be applied to interpreting education?
8. How could flow be combined with interpreting education?