Big Data-driven Pre-task Preparation for Consecutive Interpreting Mock Conferences Conducted by Student Interpreters

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Abstract-Pre-task preparation is important and challenging to both veteran and novice interpreters in light of the short time they have before the conferences. This paper probes into students' utilization of algorithm-driven search engine and big data-powered social media in their efforts to get familiar with the theme of the conference and generate glossaries, and the impact of such a practice on their performance in consecutive interpreting mock conference and the retention rate of terms and terminologies. Students in the experimental group were assigned the task of preparation with the provision of a detailed agenda, while the control group was given the materials similar to the common practice prevalent in the conference interpreting market. Both quantitative and qualitative data were collected and processed with SPSS based on the assessment forms of the mock conference, an online questionnaire and interview. The findings showed that students mainly make full use of search engines and social media with big data-driven recommendations for information about the theme of the conference, and employ online WPS documents for co-creation of glossaries, thus activating their terms and terminologies, enhancing their performances in the consecutive interpreting mock conference and the retention test one week later.

Keywords- Big data; Pre-task preparation; Consecutive interpreting mock conference; Social media; Cooperative learning

1 INTRODUCTION

The hazards of modern, real-life conference interpreting test even the trained expert to the limit, and sometimes beyond [1]. That is exactly how simultaneous interpreting training has earned its reputation for daunting difficulty, which justifies the necessity for incremental realism.

Incremental realism can be elaborated with an image from nature: the fledgling is nudged out of the nest and off the lowest branch of the tree. Likewise, students are presented with lowhanging fruits at the beginning of their training, such as trainer's speeches at moderate speed without any funny accents. Hazards are added incrementally: the speeches become authentic, then gradually more difficult, more formal or less structured, are delivered faster, and in the later stages, become more complex and awkward, with unfamiliar proper names and numbers, and mixed up with written text and slides, until the tasks resemble what we face in day-to-day professional practice [2]. Before they have a chance to taste the excitement of dumb booths, all the difficulties culminate in full-scale mock conferences with live speakers, two hours or so in length. Given the importance of pre-task preparation, little has been known about the approaches student interpreters have adopted in their preparation for the mock conferences. This study has aimed to find out more about how the gadget-toting millennials prepare for their consecutive interpreting tasks.

2 LITERATURE REVIEW

An interpreter will begin his/her arduous preparations since his/her acceptance of a task for an international conference [3]. The importance of pre-task preparation seems to be obvious, which has been evidenced by early empirical research conducted by Liu Heping in 2007, who divided the students into three groups in an experiment of translation and interpreting. Liu found that the group of students who had familiarized themselves with the topic and was given some key terms and phrases attained much higher scores than the one that did nothing for their tasks, and the effect of pre-task preparation was much more apparent on interpreting than on translation, and such preparation for the topic went beyond terms and phrases [4]. Díaz Galaz studied the performances of 14 student interpreters in a highly technical conference in his experiment. The experimental group was given the speech outlines, speakers' CVs, slides, glossaries and agenda, while the control group did nothing before the conference. His experiment demonstrated that pre-task preparation helped to shorten EVS, improve the accuracy of the interpretation and reduce the information dropped in interpreting [5]. Díaz Galaz et al. extended their experiment to seven professional interpreters and 16 student interpreters, who worked for two conferences on science. For the first conference, they went barehanded, but they were allowed to prepare for 30 minutes with materials given for the second conference. It was found that pre-task preparation had not only enhanced the accuracy of their interpretation, but also reduced EVS. Professional interpreters dealt with non-redundant information better, while student interpreters performed better in more than that, but also in technical terms and complicated syntax [6]. Song et al., on the basis of Gile's Efforts Model, carried out interpreting experiment on student interpreters, the results of which showed that pretask preparation had exerted great impact on the accuracy of business consecutive interpreting, logical and coherent production of target language, but little influence on the voice quality of interpreters, and the largest effect on the students with medium language proficiency [7]. The significance of preparation has been proven from time to time, both in research and in practice. But how do interpreters prepare for their tasks in real life?

Séleskovitch & Lederer believe that it is ideal for interpreters to gain systematically the domain knowledge for a technical conference by reading a series of reference books [8][9]. In other words, the interpreters' understanding of such a domain shall be more or less the same as that of a professional in that particular domain. However, it is rather difficult for interpreters to do so in light of the limited time they have for pre-task preparation. A survey of 140 conference interpreters with the language combination of Chinese and English in China conducted by Chao Han in 2016 via online tools has revealed that they would receive conference materials, including agenda, slides, scripts and outlines for pre-task preparation approximately one week before the conference, while in most cases, just one or two days before the task [10]. Within such a short period of time, it is very unlikely, if not impossible, for an interpreter to gain domain knowledge as much as a professional both in depth and width. What procedures do interpreters go through in their preparation?

In terms of procedures, Moser-Merser [11], Gile [12], Zhang Jiliang [3], Kalina [13] and some others have done prescriptive researcher on the basis of their hands-on experience. Their findings are as follows: First, interpreters asked the organizers for materials of the present conferences or previous sessions. Second, read the materials, highlight related terms and expressions. Third, check up the interpretation of those terms and expressions. Fourth, learn the terms and domain knowledge. Fifth, make and update the glossaries. In addition, Will [14] and Rütten [15] described preparation from the perspectives of knowledge construction and management. They hold the idea that interpreters could build their own domain knowledge system by learning terms and terminologies, which was a complex terms-drive process. Besides, Chinese scholars approached the matter from such aspects as the Register theory of systemic functional linguistics, Nida's Dynamic Equivalence theory, Schema theory, Gile's Efforts Model, interpreter training model proposed by Xiaman University, and Skopos theory, categorizing pre-task preparation for scrips, terms, clients and clothes. What methods and tools will be used in preparation for a specific task?

Gile has coined a term for preparation for a specific task, "ad hoc knowledge acquisition", which differed from acquisition of knowledge that the interpreters have already mastered. Chronologically, ad hoc knowledge acquisition can be divided into three phases: Phase one, pre-task preparation, when interpreters read intensively all the materials provided by the organizers, search for related information online, take part in briefings and rehearsals; Phase two, last-minute preparation, when interpreters read the materials given on site and communicate with speakers; Phase three, knowledge acquisition during the conference, when interpreters listen to speeches and interpretations of their booth-mates. Gile also proposed that effective understanding depended on linguistic knowledge, extra-linguistic knowledge and effective analysis [12]. AIIC Practical Guide for Professional Conference Interpreters (1999) emphasizes that interpreting quality hinges on interpreters' knowledge about the background and topics of the conferences and their familiarity with the glossaries, justifying the systematic formulation of glossaries. Likewise, Donovan proposed that interpreters had to enact preparation strategies based on three dimensions, namely, terms and terminologies, topic and setting. Luccarelli has furthered Donovan's study by including dimensions of purpose and speakers' CVs.

The aforesaid studies have referred to preparations for terms and terminologies. But how interpreters, either veteran or novice, prepare their glossaries? Hong Jiang surveyed close to 500 interpreters, mostly AIIC members, on the way they formulate, manage and use their glossaries [18]. The results of the survey led to the findings that glossaries served the purposes of learning new words and phrases, understanding concepts and raising the speed of production. Glossaries originated from slides and detailed agenda. Furthermore, glossaries are made and enriched before, during and after the conference. They are kept for the upcoming conferences of relevant themes. Similarly, Chan surveyed seven interpreter training institutes in Taiwan, revealing that making glossaries from assignments contributed to the enhancement of students' language proficiency, general knowledge, domain knowledge and interpreting skills [19]. Such findings have been supported by Chia-chien et al. in their survey into ten English-Chinese simultaneous interpreters in Taiwan, proving that glossaries were generated from documents provided before the conference, from the information they obtained during the conference and from further reading they did after the conference [20].

The necessity of making glossaries seems to be uncontroversial, but how exactly do interpreters do it? The surveys done by Moser-Mercer [11] and Hong Jiang [18] have shown that most AIIC members generated their glossaries manually, which were mainly managed or used in the media of paper or word documents. Such a traditional way of glossary formulation is timeconsuming and tiring. Thankfully, technological development has facilitated interpreters' work. Virtual Reality (VR) and corpus technology have helped interpreters a lot. For instance, Liu introduced an IVY VR training model, with which student interpreters have engaged in scenario experience and role play, thus enhancing their basic interpreting skills, language proficiency, target language production and autonomous learning [21]. 3D VR technology has been applied by Cao, where students role-played speakers delivering speeches they have written based on the knowledge they acquired from their pre-task preparation, whose performances in real-life consecutive interpreting tests were much better than the control group, who only focused on concepts and terms [22]. In 2017, Claudio elaborated on Corpus-driven Interpreter Preparation method with a free tool called CorpusMode, with which corpus identified the theme of the conference with terms and terminologies, monolingual texts were collected, relevant terms were extracted, more documents were searched and collocations were generated [23]. The feasibility of using corpus was studied by Pablo, who has proved that students' accuracy of terms and terminologies was much higher and the time spent on preparation was much shorter if they used corpus [24]. Apart from the above-mentioned corpus, Sketch Engine platform was studied by Xu, which was found to be user-friendly and timesaving for student interpreters in their preparation for glossaries with efficient functions of terms extraction and retrieval [25]. Xu took a further step in his comparison of three monolingual terms extraction tools, namely TTC TermSite, Syllabs Tools and Teaboat. He found that Syllabs Tools outperformed the other two. However, students' performances in the following simultaneous interpreting tasks showed no significant difference, which has brought an important conclusion that provision of glossaries by extraction tools would boost preparation efficiency, but it might not necessarily improve their interpreting quality because interpreters failed to activate the terms and terminologies within such a short period of time [26].

In conclusion, previous studies have verified the importance of pre-task preparation, in particular, the necessity for interpreters to familiarize themselves with the theme and domain knowledge of the conference, and to generate glossaries from the information they obtain before, during and after the conference. Traditionally, interpreters read relevant materials provided by the organizers and make their glossaries manually with the media of paper or word documents. Thanks to the development of technologies, VR or corpus have been utilized to facilitate their jobs. Nevertheless, the technologies mentioned in the previous studies are not available to student interpreters unless their universities have been equipped with relevant facilities. In that case, it is worthwhile to study how student interpreters prepare for their interpreting tasks, consecutive interpreting mock conferences in particular, CI mock conference for short.

3 RESEARCH DESIGN

3.1 Research Questions

The present study aims to answer the following three questions:

(1) How do student interpreters familiarize themselves with the theme of the conference?

(2) How do student interpreters generate their glossaries?

(3) Will their way of preparation better than the traditional one in terms of retention rate of terms and terminologies, and accuracy of consecutive interpreting?

3.2 Hypothesis

Students familiarize themselves with the theme of the conference by browsing the Internet for relevant reports and watching pertinent videos on social media with big data-driven recommendations. Such big data-powered autonomous and cooperative learning can improve their retention of terms and terminologies and performances of consecutive interpreting.

3.3 Research Tools and Subjects

Four research tools have been applied to the present study: SPSS, projective test, questionnaire and interview.

The subjects of this study were junior students of English majors in Guangzhou Xinhua University. The experimental group and control group were made up of 35 students each; all were novice consecutive interpreters, with an average age of 21 years. Since digital divide would hinder students' pre-task preparation with electronic products, a questionnaire was done to survey the electronic tools they used in their cooperative preparation. The result, as shown below in Figure 1, has revealed that there is no digital divide among the experimental group since 100% of the students owned and used some kind of electronic products, such as smart phones.



Figure 1. Number of student users by electronic devices

3.4 Research Procedures

3.4.1 Projective test: Independent t-Test of consecutive exercise before the experiment showed that both groups' CI capability was equal, since the mean scores of the two groups were 75 and 78 respectively, without significant differences.

3.4.2 Assignment of preparation for consecutive interpreting mock conference: The experimental group was assigned the task of preparing for the mock conference on *Mayors' Panel: Innovations and Practices towards Resilient, Carbon-Neutral and Nature-Positive Cities.* A detailed agenda was provided to them, with information on six panelists, including their names, titles and the cities they represented. The experimental group was divided into four teams, with nine to ten students each and one leader for each team. The team leaders were

responsible for organizing the preparation, from division of labor, collection of materials, to compilation of glossaries. They were given two days for preparation, as in most cases, professional interpreters had only one or two days for preparation before the conference[10]. On the one hand, the experimental group was instructed to make every effort in their search for pertinent materials via all the channels and tools available to them, including Internet portals and social media. On the other hand, the control group was given the agenda and some articles, slides and reports, and was asked to generate glossaries on their own during their preparation, which was similar to the common practice of professional interpreters.

3.4.3 Mock conference. The 1.5-hour mock conference was organized as follows: Team members role-played moderators and speakers; while each team was having their conference running, the rest of the students would serve as audience, and the teacher, a rater, scoring the performances of each interpreter with the following assessment form developed by Guangdong University of Foreign Studies, which covers six parameters concerning the accuracy and completeness of the content translated, language use and fluency for delivery, and coherence and effectiveness of communication, with exact ratio for each parameter. After each conference, the assessment forms were collected and the scores were calculated and analyzed with SPSS 26, the results of which will be shown in Table 2.

Construct	Parameter	Ratio
Content	Accuracy	30%
	Completeness	30%
Delivery	Language use	10%
	Fluency	10%
Communication	Coherence	10%
	Effectiveness	10%

Table 1. Mock Conference Assessment Form

3.4.4 Questionnaire and interview: After the mock conference, a questionnaire was distributed among students, collecting the information on how they did their preparation with questions regarding division of labor, the search engine and social media they employed in search of materials. Based on the questionnaire, an in-depth interview was done with three students, probing into their reasons for the organization of their preparation and the choice of the tools they resort to.

3.4.5 Retention test of terms and terminologies: A translation test was done by both the experimental group and control group, where they were instructed to write down the translation of each term or terminology, with the purposes of checking the retention rate of the glossary after one week of the mock conference. The result will be shown in Table 3.

4 RESULTS

4.1The Results of the Consecutive Interpreting Mock Conference

SPSS 26 was used to analyze the scores of the mock conference based on the assessment form, with the following results shown in Table 2.

		Content			Delivery			Communication					
Groups	No.	Desc	ription	Т-	test	Desci	iption	Т-	test	Descr	iption	<i>T-</i>	test
		mean	sd	t	р	mean	sd	t	р	mean	sd	t	р
Experimental	35	52.40	4.03	5 100 0 000	14.66	2.87	(779	0.177	14.57	14.57	0.552	0.682	
Control	35	44.46	8.11	5.188	88 0.000	9.31	3.68	0.//8	0.177	6.89	14.20	0.552	0.082

Table 2. Descriptive statistics and t-test result of the mock conference

As shown above, the t value for content is 5.188, with the p value being 0.000, which indicates a significant difference between the two groups. However, when it comes to delivery and communication, there is no significant difference between the two groups, with the p value being 0.177 for delivery and 0.682 for communication, but the mean scores of the experimental group in these two parameters were much higher than the control group. The inherent reasons will be discussed in Part V.

4.2 The Result of the Retention Rate

One week after the mock conference, a retention test of terms and terminologies was taken by both groups, with the following results shown in Table 3.

Groups	No.	Description		t-Test		
		mean	sd	t	р	
Experimental	35	6.89	2.31	5.740	0.896	
Control	35	3.60	2.48			

Table 3. Results of the retention test of terms and terminologies

As shown above, the t value for 5.740, with the p value being 0.896, which indicates no significant difference between the two groups. Nevertheless, the experimental group was able to get three points more than the control group, which can be translated into a conclusion that the experimental group was able to retain the terms and terminologies longer and better, the reasons for which have been found in the interview and questionnaire.

4.3 The Result of the Questionnaire Concerning the Tools for Pre-task Preparation

The questionnaire conducted among the experimental group after the mock conference has revealed much information about the tools they used for their pre-task preparation, such as search engines and social media.



Figure 2. The students' preference of search engine

Apparently, students like to use Baidu.com, a search engine popular in China, and Bing more than other search engines for the information they need in their preparation for the mock conference. Apart from search engines, the types of social media they prefer can be seen below in Figure 3.



Figure 3. Social media students prefer in the pre-task preparation

It is quite obvious that Bilibili and WeChat are the most popular social media among students in their pre-task preparation, followed by Xiaohongshu and Douyin.

5 DISCUSSION

This part is dedicated to shedding some light on the reasons for the differences between the experimental group and the control group in terms of their performances at the mock conference.

5.1 A Comparison Between the Two Groups in Pre-task Preparation

The experimental group distinguishes itself from the control group in the work mode, tools and glossary-making media, which can be shown in table 4.

Table 4 A Comparison between the Two Groups in Pre-task Preparation

Group	Work Mode	Tool	Glossary
Experimental	Cooperative	Search engine	Word document
	_	& social	or excel
		media	spreadsheet
			aided with
			social media
Control	Independent	Only articles,	Word document

slides and	or excel
reports	spreadsheet
provided by	
the teacher	

As shown in the above table, the control group, from reading the materials to the generation of glossaries, worked on their own, which was very similar to the work mode of professional interpreters in the market at present. While the experiment group was fallen into four teams, with team members collaborating with each other, making full use of the Internet and big data - driven social media for the information of speakers and the cities they represented, and generating glossaries with tools they are conversant with.

5.2Algorithm-driven and Big Data-based Search of Information

In this interview, students descried how they had searched the information for each speaker and city. After they typed in the key words in the search engine, such as the name of the city, much algorithm-driven information would pop up in the screen, including latest news, the governmental portals and even some tourism websites. Big data-powered search is even more useful in that numerous pictures and videos, particularly short videos, will be presented to the users. The more the users watch them, the more similar contents will be sent, which can be best illustrated with two students' experiences told in the interview:

Student 1: "The key words of Fuvahmulah and Maldives have brought me a large number of videos about the city and the country in xiaohongshu.com. They are so beautiful that I could not help watching one after another, being mesmerized by the picturesque and breathtaking sights there. I have been so familiar with the island country that I could immediately visualize the impressive scenery and marine creatures there, like the billhead sharks and spinning dolphins, when the speaker talked during the mock conference."

Student 2: "I have tried to find out more about the councilor from Catbalogan City, Philippines, in bilibili.com. I typed in her name, Stephanie Uy-Tan, and was amazed to see many videos about her, giving speeches or having interviews, from which I acquainted myself with her accent and way of speaking. When I prepared for the script of the mock conference, I picked some of her points in the introduction of the city. I even put myself in her shoes when I prepared for my speech, emphasizing the importance of citizens' engagement in environmental protection for a greener and safer city."

Generally, thanks to the algorithm-driven search engines and big data-powered social media, students have been supplied with much more information than they can get from only the conference materials provided by the organizers. Accordingly, they became much more well-prepared for the roles of speakers and interpreters, justifying higher scores for the experimental group than the control group for their performances in the mock conference in terms of content, delivery and communication.

5.3 Collaborative Formulation of Glossaries

Unlike the control group who made the glossaries on their own, the team members of the experimental group co-created the glossaries via such tools as WPS documents, with which

they could input and edit the glossaries. Here comes two students' illustrations of their experiences.

Student 3: "In face with such a large amount of information we've found online, we had clear division of labor, some responsible for reading articles and reports, some for listening to the speeches and watching the videos. But we edit the glossaries together, which was made firstly in alphabetical order. After it was initially created, we reorganized the words in order of categories, such as organization, scenery, industry and governmental policy."

Student 4: "We made the glossaries on our own, and then we put them together and compile them into one on an excel spreadsheet, then we categorized them based on the topics."

Collaborative learning for pre-task preparation has not only enhanced their efficiency, but also enlarged their glossaries. The process of cooperation, discussion and exchange have activated their terms and terminologies [26], and enabled them to build their knowledge system about that particular topic [14][15], thus ensuring better performances in the mock conference in terms of content accuracy and completeness, and even in the retention test one week later.

6 CONCLUSION

In their pre-task preparation, student interpreters mainly resort to algorithm-driven search engines and big data-powered social media for information about the theme of the conference. They read articles and reports, listen to audio clips and watch videos to familiarize themselves with the terms and terminologies pertinent to the topic.

When it comes to the generation of glossaries, they no longer rely on the media of paper or word documents only, but rather WPS documents for co-creation. Some even make full use of such functions as air-drop in their APPLE electronic products when exchanging their glossaries.

Their way of preparation is significantly better than the traditional one in terms of the quality of their consecutive interpreting and the retention rate of terms and terminologies, the reasons for which might be that collaborative pre-task preparation is more conducive to the activation of terms and terminologies within a short period of time, thus improving their performances in both the mock conference and the retention test one week later.

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REFERENCES

[1] Setton, Robin & Dawrant, Andrew. 2016. A Complete Course and Trainer's Guide to Conference Interpreting. John Benjamins Publishing Company. Amsterdam/Philadeph. P350

[2] Setton, Robin & Dawrant, Andrew. 2016. A Complete Course and Trainer's Guide to Conference Interpreting. John Benjamins Publishing Company. Amsterdam/Philadeph. P45

[3] Zhang Jiliang. On Preparations Done by Interpreters [J]. Chinese Science & Technology Translators' Journal. 2003(3).

[4] Liu Heping. Pre-task Preparation and Interpreting Quality, Implications for Interpreting Courses[J]. Journal of Language and Literature Studies. 2007(07).

[5] Díaz Galaz, S. (2011). The effect of previous preparation in simultaneous interpreting: Preliminary results. Across Languages and Cultures 12 (2), 173–191.

[6] Díaz Galaz, S., Padilla, P. & Bajo, M.T. (2015). The role of advance preparation in simultaneous interpreting: A comparison of professional interpreters and interpreting students. Interpreting 17 (1), 1–25.

[7] Xiaoli Song, Mingzhu Tang (2020). An Empirical Study on the Impact of Pre-interpreting Preparation on Business Interpreting under Gile's Efforts Model. Theory and Practice in Language Studies 10(12), 1640-1650.

[8] Séleskovitch, D. and Lederer, M. (1989). Pédagogie raisonnée de L'interprétation [M]. Paris: Didier édudition.

[9] Séleskovitch, D. (1998). Interpreting for international conferences (3rd revised edition) [J]. Arlington, VA: Pen and Booth.

[10] Chao Han, (2016). A survey to profile conference interpreting practice in China [J]. Interpreting, 18(2):259 - 272.

[11] Moser-Mercer, B. (1992). Banking on terminology conference interpreters in the electronic age [J]. Meta: Translators' Journal, 37(3): 507-522.

[12] Gile, D. (2009). Basic concepts and models for interpreter and translator training (Rev. ed.)[M]. Amsterdam/Philadelphia: John Benjamins.

[13] Kalina, S. (2005). Zur Dokumentation von Maßnahmen der Qualitätssicherung beim Konferenzdolmetschen [A]. In Heine, C., Schubert, K. & Gerzymisch-Arbogast, H. (eds.). Translation theory and methodology [C]. Tübingen: Jahrbuch Übersetzen und Dolmetschen, 253-268.

[14] Will, M. (2007). Terminology work for simultaneous interpreters in LSP Conferences: Model and method [A]. MuTra 2007 – LSP Translation Scenarios [C].

[15] Rütten, A. (2015). Terminology [A]. In Pöchhacker, F. (ed.). Routledge Encyclopaedia of Interpreting Studies [C]. London/New York: Routledge, 416-417.

[16] Donovan, C. (2001). Interpretation of technical conferences. Conference Interpretation and Translation 3 (1), 7–29.

[17] Luccarelli, L. (2006). Conference preparation: What it is and how it could be taught. Conference Interpretation and Translation 8 (1), 3–26.

[18] Jiang, H. (2013). The interpreter's glossary in simultaneous interpreting: A survey [J]. Interpreting. 15(1), 74-93.

[19] Chan, P.-Y. (2015). The student interpreter's glossary: A survey. Master's thesis, National Taiwan Normal University.

[20] Chia-chien Chang, Micheel Min-chia Wu, Tien-chun Gina Kuo (2018). Conference interpreting and knowledge acquisition: how professional interpreters tackle unfamiliar topics [J]. Interpreting. 20 (2), 204-231.

[21] Liu Menglian. Study on IVY Virtual Reality Interpreting Training Model[J]. Shanghai Journal of Translators. 2018, (05).

[22] Cao Yue. Correlations between the 3D Virtual Reality Technology-based Pre-task Preparation and Cognitive Load of Consecutive Interpreting[J]. Foreign Language Education. 2021,42(05).

[23] Claudio Fantinuoli (2017). Computer-assisted preparation in conference interpreting [J]. Translation & Interpreting Vol 9, No. 2 (2017).

[24] Pablo S. Pérez-Pérez (2018). The use of corpus managment tool for the preparation of interpreting assignments: a case study [J]. Translation and Interpreting Vol 10, No. 1(2018).

[25] Xu Ran. Pre-task Preparation Model Based on Corpus Technology[J]. Chinese Translators Journal 2018, 39(03).

[26] Xu Ran. Application and Effect of Terms Automatic Extraction Tools in Pre-task Preparation [J]. Shanghai Translators Journal 2020, (03).