A Study on the Foreign Language Translation Ability and Its Training Platform Construction Based on Computer Technology*

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Abstract—Along with the popularization and development of information technology and network platform, computer technology has played a very important role and exerted influential effect in the field of education and become a significant way and approach to realize the modernization of education. This paper will study the foreign language translation based on computer technology and the ability training platform construction, mainly including related research results and the research status both in China and foreign countries as well as the construction theory basis and specific course of the translation ability training platform, aiming to promote the innovation and development of China's translation education cause.

Keywords—computer technology; foreign language translation ability; ability training; platform construction; empirical research

I. INTRODUCTION

In 2006, the department of education approved the addition of undergraduate program of translation in the institutions of higher learning. In 2007, the Ministry of Education under the State Council approved to open the professional master degree of translation, aiming to cultivate high-level and professional English talents for the progress and development of the society. According to the address on "China International Language Service Industry Conference" delivered by Guo Xiaoyong, executive vice president of Translators Association of China, a total of 158 Chinese colleges and universities have established the undergraduate program of translation as of 2015 and 41 colleges and universities have been approved to run a pilot professional master degree of translation [1]. It shows that the education system of our country attaches great importance to the cultivation of translators. The translation talents cultivation system has already begun to take shape nowadays, including translation bachelor, professional translation master, master of translation study, doctor of translation study, etc., so as to realize the all-round, multi-angle translation talents cultivation mode [2].

The translation professional talent cultivation mode based on society should be transformed from elite education to mass education, and the computer technology should be used to construct foreign language translation ability training platform to cultivate inter-disciplinary or practical English translation talents. The concept of inter-disciplinary English translation talents was first proposed in the "Higher Education English Major English Teaching Syllabus" released in 2000, which clearly pointed out that the cultivation goal of English major in higher education institutions is to cultivate students' solid basic knowledge in foreign language and broad foreign language culture knowledge and make them proficient in the communication of military, economic, cultural, political, and scientific and technological contents [3].

II. RESEARCH STATUS IN CHINA AND FOREIGN COUNTRIES

A. Foreign Research Results

With the continuous development of economy and social productivity, the popularization and development of information technology and network platform has become an inevitable trend. To integrate computer technology into English translation teaching has become the main content of the field of education both at home and abroad and achieved remarkable progress and achievements, such as micro-lecture, MOOC, flipped class, etc. [4]. MOOC and micro-lecture are new teaching models featuring online learning and education based on computers, by which students can log on the network platform to study, breaking the limitation of practice and space for learning. They can improve students' interests in learning and initiatives, so as to realize effective and efficient English teaching. Flipped class is the research result

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in education of American teachers, aiming to help the students to carry on effective learning: the concept of flipped class can promote the development of the cause of education, give full play to the dominant position of students in the learning process, and stimulate students’ interest and initiative in learning [5].

B. Research Status in China

With the progress of economic and technological development, the modernized reform trend in China’s education field has become the dominant content. MOOC, micro-lecture, and other online learning platforms has been gradually recognized and accepted by students, and teachers use modern teaching facilities in their teaching activities more frequently to make the class more interesting and effective [6]. To integrate computer technology into English translation teaching activities will change the traditional teaching mode and teaching idea, making English translation teaching activities more vivid and lively. It also helps to promote the communication and interaction between students and teachers, so as to improve English teaching effect. The development and popularization of the Internet and computer technology in the field of education has laid a practical foundation of modern education; students can utilize the rich resources and contents through the Internet, without having to rely on teachers’ lectures, which is favorable to the promotion of their ability and consciousness of autonomous learning (“Fig. 1”).

Fig. 1. Foreign language translation ability and ability training based on computer technology.

III. SIGNIFICANCE OF THE FOREIGN LANGUAGE TRANSLATION ABILITY AND ITS TRAINING BASED ON COMPUTER TECHNOLOGY

A. Requirement of the Modernization of Education

Along with the advance and development of China's economic strength and social productivity, China's economy has stepped into the transition stage of development, and the development trend of economic globalization makes China's foreign economic exchange and trade more frequent. In the background of the proposal of innovative and entrepreneurial talent strategy and the development strategy of "the Belt and Road", the progress and development of society puts forward stricter requirement for talents. Therefore, English teaching activities should pay more attention to the cultivation of students' ability and increasingly enhance their practical English application ability, so as to enrich students' knowledge reserves and intercultural communicative competence [7]. At present, "Internet + all walks of life" has become important trend and content of social innovation and reform. Foreign language translation ability and its training based on computer technology is an important content and approach of education modernization, which can efficiently promote the quality of English teaching and realize effective English translation ability teaching [8].

B. Students' Personal Development Needs

Along with the advance of the society, students' personal ability will directly affect their learning, life and employment. Therefore, it is very important to cultivation students' English translation ability based on computer technology and to enhance students' employment competence and English application ability. English ability will directly influence students' daily learning, work, and other aspects, thus to improve the teaching quality of English translation will have direct influence on their personal development [9]. First, good English translation ability training can improve the students’ thinking ability and innovation ability, which is an important way to improve students' comprehensive quality. Second, the essence of present employment competition is the competition of knowledge reserves and practical ability; as a universal language in the world, mastery of English is one of the criteria and requirement for students' employment [10].

C. Solving the Present Education Problems

English teaching at present pays more attention to the students' learning of theoretical knowledge and ignores the cultivation of their practical ability and communicative competence. For example, teacher is the subject of teaching activities and students are in the position of passive acceptance of knowledge; if their initiative and interest in learning activities is low, the promotion of their ability and effectiveness of the class will hardly be improved. Traditional teaching ideas and teaching methods do not meet the needs of social development and students' development. To integrate computer technology into the cultivation of English translation ability will promote the effectiveness and efficiency of English teaching [11]. During English translation training, computer technology can realize two
The teacher can play a clip of audio for students to translate, which can not only train students’ translation ability but also help increase their English listening comprehension and language sense. Documents or PPT in the computer can also be used to train students’ English translation ability, so as to improve the effectiveness of English teaching.

IV. FOREIGN LANGUAGE TRANSLATION ABILITY AND ITS TRAINING PLATFORM CONSTRUCTION BASED ON COMPUTER TECHNOLOGY

A. Theoretical Basis

The training of foreign language translation ability based on computer technology mainly cultivate students’ basic English competence, ability to adapt themselves to changing circumstances, and good intercultural communication ability. First, the effective use of computer technology can enrich the content of English teaching and improve the quality and level of English translation teaching activities; students can realize resource sharing in the learning activities, so as to enrich their knowledge reserves of English. Good ability to adapt oneself to changing circumstances and intercultural communication competence is an important part of effective translation. Computer technology can be used to cultivate students’ English thinking and memory ability, so as to better complete English translation task. There are three main aspects of contents in the construction of foreign language translation ability training platform based on computer technology [12]. First, teachers in the teaching practice should use more modern teaching technology and a variety of ways, such as pictures, videos, and documents, to display English knowledge, so as to enhance the enjoyment and effectiveness of English teaching; teachers can also use online communication to communicate and interact with students and timely solve the problems and difficulties that students meet in learning to help them find the right way of English translation ability training. Students in the learning process should pay attention to the use of Internet platform and multimedia technology, such as micro-lecture, MOOC, and other modern online learning platforms. They can use the online learning platforms to prepare before the class, so as to further understand the content taught in the classroom and raise their English translation ability. After the class, students should take advantage of the online learning platforms and Internet technology to review the knowledge, so as to consolidate the translation skills and knowledge taught by the teacher.

B. Calculation Formula

In the study on the foreign language translation ability and its training platform construction based on computer technology, the mathematical formula will be used for the calculation to ensure the scientificity and accuracy of the empirical research results, where \( V_i \) is the decreasing function of \( \lambda_i \) and \( j \neq 1 \), and is not related to the value of \( \lambda \).

If \( \lambda_j<1 \), \( \sigma_j \) is the increasing function of \( \lambda_j \), then \( i=1, \ldots, n \), \( j \neq i \), and is not related to \( \lambda \).

Then,

\[
\gamma_{\sigma_j} = \frac{1 - \lambda_i n_i}{n_i + \lambda_i n_i} (n_i + \lambda_i n_i)
\]

(1)

If the value of \( \lambda_i \) is 0, and \( n_1 \) and \( n_2 \) are less than 2/5, then

\[
V_i = n_i + \lambda_i n_i
\]

(2)

\[
A = t_i(4 - 12d_i^2 + 5d_i^4)
\]

(3)

\[
B = 12 - 16d_i^2 + 6d_i^4 > 0
\]

(4)

Therefore, the research on the foreign language translation ability and its training platform based on computer technology has certain applicability and timeliness.

C. Platform Construction

The construction of foreign language translation ability training platform based on computer technology is actually the construction of English corpus, the search engine based on which can provide information for students’ learning; teachers’ research on corpus should be based on cultivating students’ translation ability and English language sense. First, teachers should conduct parallel study on corpus, and build the three modules of the English translation training platform: vocabulary, sentence, and translation, according to the requirements of theory and practice in the curriculum content. Each module should include Chinese-English translation and English-Chinese translation and other links. By retrieving the entries, teachers can better complete the preparation work for students’ translation training and other work [13]. Second, in the process of building computer translation ability training platform, it is necessary to attach importance to students’ learning needs, give full play to the advantages of precision in computer translation, fully understand the connotation of computer aided translation through the construction of the platform, cultivate the students’ ability to use computer for translation, and at the same time, help students to identify problems and disadvantages of computer translation [14].

V. CONCLUSION

With the deepening of globalization, the economic level and the progress of social productivity will rely on the computer technology, and the mode "Internet + all walks of life" has become the main trend of the development of society. The study on foreign language translation ability and its training platform construction based on computer technology will improve the quality and efficiency of translation teaching, give full play to the dominant position of students in learning, cultivate translation talents with comprehensive ability, and make contributions to the development of the socialist cause.

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