Application of Computer-Assisted Translation Technology in English Teaching

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Abstract: Computer-assisted translation effectively combines English learning with professional learning, which can help students with certain English comprehensive ability to quickly translate and adapt to market needs, and provide new ideas for the special-purpose English teaching reform. It can be seen that it is necessary to study the establishment of English curriculum for computer-assisted translation technology in colleges and universities. It can help students improve their translation efficiency in the professional field, improve their translation ability, and recognize more professional terminology to better meet the requirements of English for specialized purposes. Therefore, this study proposed a professional English translation teaching model based on computer-assisted translation technology for the current situation and existing problems of professional English translation teaching in colleges and universities. It also analysed and discusses from four aspects: teaching mode, teaching management function, curriculum setting and teaching method. The research results showed that the addition of computer-assisted translation technology to the classroom could have a positive impact on students' translation ability to a certain extent. Computer-assisted translation technology has practical significance for improving students' English application ability.

1. Introduction

In the process of English teaching, multimedia teaching methods have been continuously applied and improved. This provides a certain space for the application of computer-assisted translation, and also gives students a preliminary understanding of this technology, and is more skilled in the application, effectively improving the translation efficiency. Compared with the traditional translation process, the advantage of computer-assisted translation is to strengthen the participation of computers [1]. In machine-assisted translation, when the translators carry out related work, the computer-assisted translation system can also perform the following tasks: searching the terminology database, querying the same or similar translated sentences, and depositing the translator's translation results. It can be seen that the role of the computer is to "memorize", which in turn assists the translators in carrying out related work and achieves the desired results.

Find translations of the same or similar sentences from the translated text, avoid unnecessary duplication of effort, and perform efficient translation work. Computer-assisted translation is a kind of computer-assisted language learning. Computer is a participant in teaching activities, a producer of reality and a promoter of language construction [2]. Computer-assisted translation teaching can effectively make up for the shortcomings in traditional professional English translation teaching. This learner-centered translation teaching model pays more attention to the participation of students in the classroom and the interaction between teachers and students, self-learning after class, teaching evaluation and student evaluation. In the era of computer communication, practice is better than theory. It is necessary and feasible to explore ESP teaching under computer-assisted translation in non-English majors of applied undergraduate. When CAT teaching is not popular in colleges and universities, if you want to make a difference in the same colleges and universities, so that students have strong competitiveness, it is not unreasonable to try and explore CAT courses in non-English professional ESP. Therefore, we urgently need to reform the current teaching model to adapt to the requirements of the new situation for professional English teaching.

Based on the above analysis, this study proposes a professional English translation teaching model based on computer-assisted translation technology for the current situation and existing

problems of professional English translation teaching in colleges and universities. It also analyses and discusses from four aspects: teaching mode, teaching management function, curriculum setting and teaching method. It is hoped that this research will help students improve their translation efficiency in the professional field, improve their translation skills, and identify more professional terminology to better meet the requirements of English for specialized purposes.

2. Overviews of Related Research

2.1 The Status Quo of Computer-Assisted Translation in English Teaching

Computer-assisted translation (hereinafter referred to as machine-assisted translation) mainly uses translation memory (TM) and flexible human-computer interaction technology. It greatly improves translation efficiency, saves translation costs, guarantees translation quality, and simplifies project management. It is a human-assisted machine translation system. In the narrow sense, CAT technology refers to specialized software and related technologies developed to improve the translation process. Typical applications include Trados, Deja, WorldFast, and Yaxin CAT. The underlying principle is to automatically memorize the translated content, automatically searching for matches and prompting the translated content when re-translating, thus avoiding duplication of work. The importance of the professional English course as one of the contents of "Undergraduate Teaching Quality and Teaching Reform Project" is self-evident [3].

In China, computer-assisted translation has gradually entered college classrooms, especially in the classroom of translation master's degrees [4]. The Master of Translation Studies at Peking University defines the basic course of translation technology practice as a limited elective course, and offers courses closely related to computer-assisted translation, such as "Bilingual Editing and Information Publishing New Technology" and "Localization and Internationalization Engineering". Nanjing University stipulates language and translation technology courses as compulsory courses, but only for masters and doctoral students in linguistics and translation studies. The Chinese University of Hong Kong has a machine translation technique and the Hong Kong Polytechnic University has a computer-assisted translation.

2.2 Computer-Assisted Translation Problems Encountered in English Translation Teaching

Computer-assisted translation faces two situations: First, the neglect and misunderstanding of the translation teaching and theoretical circles; The second is the application and development of translation software. It has been applied in some international organizations and translation companies, and has certain efficiency and accuracy [5]. The reasons why computer-assisted translation is ignored by the teaching community are mainly the two aspects shown in Figure 1.
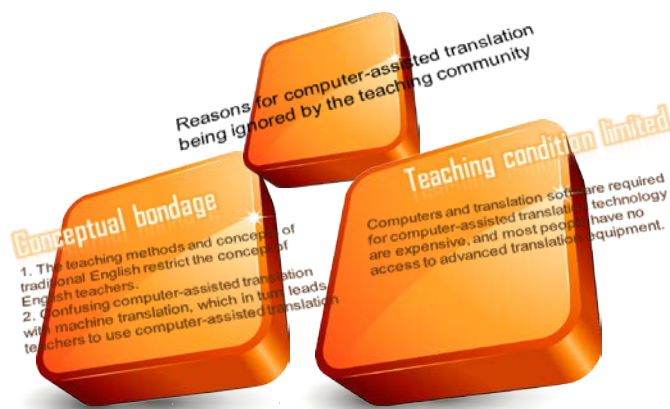

Fig.1 Reasons For Computer-Assisted Translation Being Ignored by the Teaching Community

3. Application Analysis of Computer-Assisted Translation in English Teaching

Compared with the advanced experience of the European Union, although we have begun to

recognize the role of CAT, it is clear that our understanding of its important position is still insufficient. Therefore, it is urgent to analyse the application of computer-assisted translation in English teaching. This part briefly analyses the four aspects of teaching mode, teaching management function, curriculum setting and teaching methods.

3.1 Teaching Mode

When designing the teaching module, we start from the generalized computer-assisted translation and fully consider the various applications involving information technology that professional translators can encounter in translation practice. On this basis, we design a more perfect teaching content system [6]. This system mainly includes four modules as shown in Figure 2.

01
Translation information technology
Advanced word processing skills
Digital text acquisition technology
Input technology
Search technology
Corpus retrieval

02
Terminology work
Important issues such as collection, organization, term retrieval, optimization, and maintenance of termbases

03
CAT system application
This module is the top priority of the entire course.

04
Translation project management
Translation professional courses for market demand should regard translation as a complete industrial process
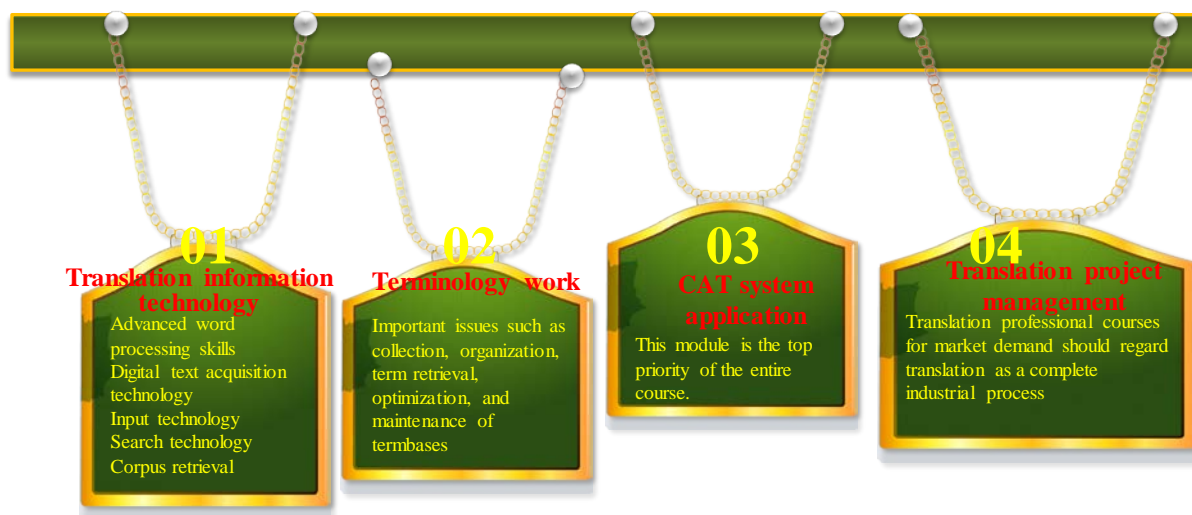
Fig.2 Design Module of Teaching Mode under Computer-Assisted Translation Technology

It is not difficult to see from the teaching mode of the translation practice course that the translation practice course under the application of computer-assisted translation technology will challenge the traditional translation concept. The translation practice teaching under computer-assisted translation technology can refer to the teaching method and method of "English translation skills + professional knowledge module", and students are composed of different professional knowledge modules according to students' interests [7]. In this case, after the completion of the translation practice course, students can have a certain translation experience in a professional module to lay a foundation for better translation work in the future.

3.2 Teaching Management Function

Application of computer-assisted translation technology to English teaching requires bulletin management, course management, courseware teaching, homework management, exam management, group training, corpus management, and support for bulletin management functions. Teachers can post announcements and students can view announcements on the student interface. Support for course management functions, you can view the current course and history course, and teachers can add, modify, and copy the course. Supporting the teaching function of courseware, teachers can edit courseware and teach with courseware. During the lecture, students can exchange and exchange quality courseware with students to achieve elite teaching.

3.3 Course Settings

In terms of the application of the curriculum, the teacher can pre-set the training objectives, the nature of the course, the time of the course, the form and content of the English teaching in the English major CAT. The training objective is to train non-English major undergraduates with strong reading, translation and writing skills so that students can use English as a tool to obtain the information they need. The nature of the course is a compulsory course for non-English majors. The

examination form is divided into closed-book examinations and on-machine tests. The examination content and evaluation method is the mid-term examination (100-point system): theoretical examination, examination of students' mastery of CAT corpus, translation information and data processing, terminology, etc.; Final Exam (Excellent, Good, Medium, Passage, Fail): Take the practice test on the machine and test the translation project for the student's special purpose English. Drawing on Song Xinke's application-oriented undergraduate computer-assisted translation course setting, the curriculum setting table of English teaching under computer-assisted translation technology is shown in Table 1 [8]:

Table 1 . Course Setting Table for English Teaching under Computer-Assisted Translation Technology

School hour	Learning Contents	Learning targets
2	CAT and MT	Understand the development history of CAT and the difference between CAT and MT
4	The basic principles of CAT and corpus	Master the basic structure of CAT system and corpus system and translation memory technology
6	English translation information and data processing technology	Master techniques such as text processing and corpus information retrieval
6	Construction of terminology	Master the construction, maintenance, update, use, and import of termbases
16	Mainstream software (SDL Trados, World Fast and Transmate)	Master the use of various software, combined with the knowledge of English to learn the translation application training of various projects

3.4 English Teaching Methods under Cat

CAT teaching belongs to translation technology teaching, but translation technology teaching itself is a complete teaching system. It is not limited to teaching CAT software, but also includes translation and search, translation and localization, translation and publishing. Based on my own teaching experience and based on the reading of relevant literature, the author believes that CAT teaching should follow the following basic methods (Table 2).

Table 2 Methods of English Teaching under Cat

Methods	Explanations
Start with basic concepts	CAT teaching should clearly understand the working principle of CAT software, namely TM (translation memory) + MT (machine translation) + HT (human translation / proofreading), using CAT software can improve translation efficiency, ensure translation quality, optimize translation process.
Lecture and operation in parallel	The teacher explains and demonstrates, and the student's simultaneous operation or immediate operation works best. At the same time, the content of the explanation or demonstration will be subdivided according to the function module of the CAT software.
Project case teaching	The real case introduces students directly into the professional translation environment, experiencing real translation projects, and in-depth understanding of professional project specifications, customer requirements, project analysis and quotation, translation process, quality control, etc., in order to have a deeper understanding of translation practice.
	Teachers can collect customized demonstration cases or work cases for different software functions according to the syllabus requirements and student level.

4. Analysis of the Application Effect of Computer-Assisted Translation in English Teaching

This study summarizes the problems in the English translation course of the 2016-2018 students in our school, summarizes the problems existing in the traditional translation teaching of English majors through questionnaires and interviews, and forms the written materials; The control group and the experimental group of the English majors of the English Language School of our school were established in 2017 and 2018 to carry out teaching monitoring and comparative experiment teaching. The teaching method of the control group is still carried out according to the traditional translation teaching mode. The main content of the teaching is the English-Chinese translation of

literary works. The exercises are mainly based on the practice of teaching materials. The experimental group uses classroom teaching and extracurricular mode learning. Students use computer-assisted translation software to assist in the completion of the work, and use the Internet to query the required information at any time. By observing the classroom, testing, interviewing, collecting data and other methods to compare the two groups of students, verify the teaching effect, and propose corresponding solutions to further improve the curriculum construction. The experiment went through a school year, with the same class time per semester, 16 weeks, 2 hours per week, and a total of 32 hours. In the teaching process, teachers require students to make full use of computer-assisted translation software and network platform to complete translation tasks on time and efficiently. Team members need to work together in a serious manner, from the placement, completion and proofreading of the translation tasks to the final submission, and the teachers do the collection work. After the students' written tests, the teachers conducted a unified review. The final scores of the two groups are shown in Table 3.

Table 3 Results of the Experimental Group and the Control Group

Groups	Numbers	Mean score
Test group	95	89.51
Control group	87	78.24

As can be seen from Table 3, the average score of the control group was 78.24, and the average score of the experimental group was 89.51. The average score of the experimental group was higher, indicating that the addition of computer-assisted translation technology to the classroom can affect the English translation ability of students to a certain extent. The students expressed their affirmation of the addition of computer-assisted translation technology in the translation classroom. The general response to the addition of computer-assisted translation technology has greatly benefited the students.

5. Conclusion

In the current translation practice and translation teaching, based on the software translation lexicon and translation strategy, the application of computer-assisted translation software to English teaching practice is not only operative, but also can effectively improve the quality of students' English learning. To improve the speed of students' translation practice, meet the needs of translation practice, and accelerate the communication between different languages in different countries. Without basic skills and only professional skills, the depth, breadth, precision and validity of translation will be greatly affected; But if there are only basic skills and no professional skills, computer-assisted translation is fundamentally difficult to achieve. The various capabilities are not separated from each other. They are interdependent and complementary, and together constitute the indispensable skill system of the translator in the increasingly complex translation environment of the contemporary era.

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