

Review

Integrating Information and Communication Technology into Interpreter Training in China

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Based on the relevant literatures, this paper reviews the major studies on the application of information and communication technology (ICT) to interpreter training in China. It first introduces the historical development of integrating ICT into interpreter training in the country briefly. Then it focuses on the pedagogical factors such as training models and principles, training materials, training strategies and autonomous learning as well as assessment and teacher/student roles. Finally, the paper discusses the technical tools used in the field.

Keywords: China; interpreter training; ICT; pedagogical factors

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INTRODUCTION

The information and communication technology (ICT) has brought about dramatic changes to the profession of interpreting and interpreter training. New forms of interpreting, such as remote interpreting and telephone interpreting, have come into being. Professional interpreters are benefiting from the technology-generated

convenience but facing unprecedented challenges in the new environment.

Meanwhile, the impact of ICT on interpreter training is also far-reaching and widespread. On the one hand, the trainers have been trying to use various ICT tools to facilitate the teaching and learning process, including

tapes, audiovisual recordings, digital TV channels, the Internet, software, corpora, terminology databases, and so on. On the other hand, both interpreting trainers and researchers have been thinking about combining ICT with interpreter training in a systematic manner. In other words, how to integrate ICT into all the pedagogical factors in interpreter training becomes the central topic. Indeed, researchers worldwide have been exploring this area during the past two decades.

Although relevant researches started up in China at the turn of the 21st century, the past decade has witnessed a significant progress due to the concerted efforts from various sources. The present study will review the research findings achieved primarily over the past ten years that are of particular relevance to interpreter training in historical development, pedagogical factors, technical tools and criticisms. It is hoped that the present study can serve as a reference for international interpreting practice and research.

RESEARCH METHODOLOGY

The relevant literatures were collected and reviewed in four ways, focusing on the four main issues specified above. First, a manual search of key journals during the past decade was done, including *Chinese Translators Journal*, *Shanghai Journal of Translators*, *Computer-assisted Foreign Language Education*, and *Modern Educational Technology*. Then an electronic search of relevant databases was done, including CNKI (China National Knowledge Infrastructure) and Wanfang Database. The major works by the leading domestic researchers in the field of interpreting studies were also tracked. Finally, all kinds of collected documents and prepared summaries were examined that were considered relevant to the issues discussed in this paper.

Historical development

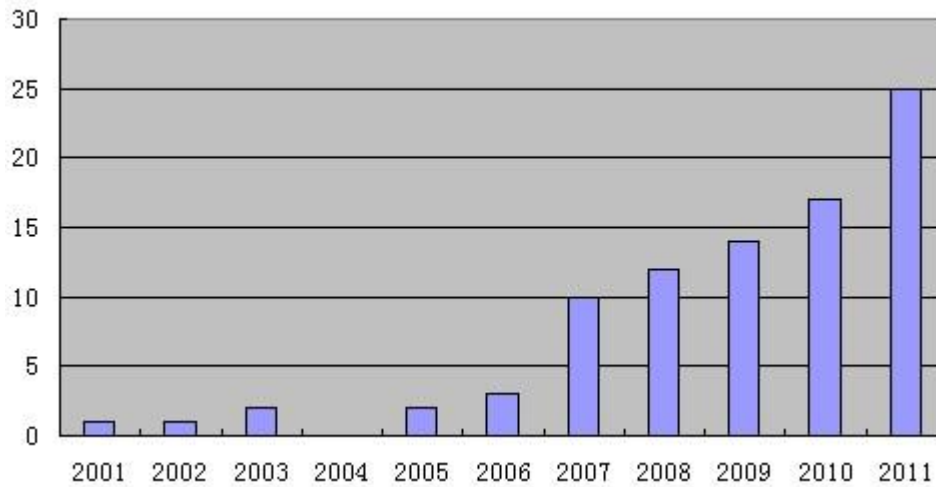
Research on integrating ICT into interpreter training in

China is an emerging field relative to other areas, such as machine translation and computer-aided translation. It appeared in the first half of the twentieth century. Its history is also shorter than that of the same kind of research outside China. Western research in the area began to take shape in the late 1970s. However, the research in question in China has been gaining so much momentum that it is important to identify its development track.

Table 1 shows the domestic research trend from 2001 to 2011. The data were taken from CNKI and Wanfang Databases. The total number of journal articles with the key words “interpreting teaching or interpreter training” amounts to 774, and 85 of the above articles are concerned with such ICT as multimedia, audiovisual files, computers, corpora, the Internet, online platforms, and so on.

The whole development of this ten-year period can be divided into three stages. At the initial stage from 2001 to 2005, the six articles retrieved are all of qualitative research. Researchers focus their attention on the impact of ICT on interpreter training, the principles that need to be adopted in applying ICT to interpreter training and the challenges for interpreting trainers. As for the impact, Qin (2005) summarizes three major points. The real-time effect and synergistic effect of ICT can help teachers and students obtain updated information on a regular basis. The complementary effect and leverage effect enable interpreter training to go beyond the constraints of time and space in the face-to-face classroom, and trainers and trainees can share and exchange learning materials all the time. The dynamic effect and virtual effect create a simulated authentic environment for field experience and provide numerous practice opportunities for students. With regard to the principles that need to be adopted in applying ICT to interpreter training, it is suggested that skill development should precede knowledge acquisition, and ICT should be taken as a useful supplement to interpreter training instead of an irrational obsession in instructional designs. The discussion of the challenges for

Table I: Domestic Research Trend (2001-2011)



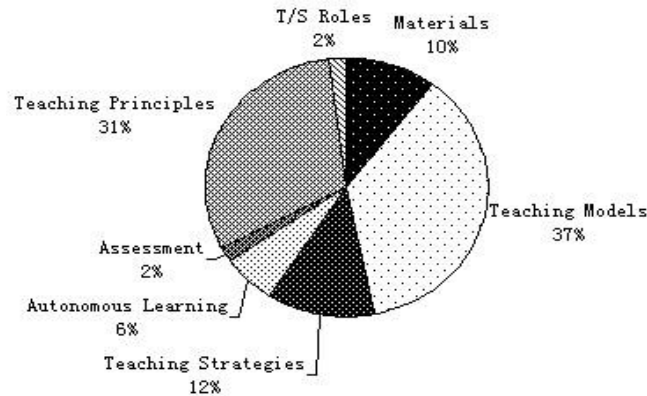
interpreting trainers is twofold: getting accustomed to the rapid development trend of technological innovations and applying ICT effectively to interpreter training.

The second stage from 2006 to 2007 can be regarded as a transition or a turning point in that the State Council of China gave an impetus to the standardization of translation and interpreting training programs in China. In 2006, the establishment of the Undergraduate Program of Translation and Interpreting in institutions of higher learning was approved by the State Council and the MTI (Master of Translation and Interpreting) program was approved in 2007. Interpreting trainers and researchers were inspired by the policy and began to contribute actively to the exploration of incorporating ICT in interpreter training. The number of articles in this period doubled, and the topics multiplied. Quantitative research began to find its place. The Guangdong University of Foreign Studies took the lead in developing ICT tools for interpreter teaching and learning. For example, Jiang (2006) developed a computer-aided interpreting system based on NET Xu (2007) also worked out a training system. Meanwhile, the impact of ICT on interpreting teaching is further discussed; both merits and demerits of ICT are included. One of the major advantages of ICT is that the technology is conducive to student involvement in

classroom activities by integrating various sensory channels. On the other hand, Chen (2007) points out that the correctness and appropriateness of abundant Internet-based materials need to be scrutinized and the technical failure often leads to disasters in delivering prepared audiovisual materials. In addition, Chen argues that ICT does not necessarily fit into such interpreting skills as note-taking, information reformation of the target language and short-term memory.

The third stage from 2008 to 2011 is characterized by a steady and substantial growth of the research in question. According to Table 1, the number of journal articles in 2011 is roughly twice that in 2008, and the annual growth tendency is quite impressive. The prosperity of this stage lies in the fact that all major pedagogical factors are included, such as training models and strategies, learning materials, autonomous learning, teacher and student roles, evaluation, to name just a few. Another prominent feature of this period is the adoption of empirical research methods. Studies in the previous periods were largely based on interpreting teachers' intuitive reflections and individual experiences. The feasibility and effectiveness of integrating ICT into interpreter training rested merely on theoretical assumptions and pure speculations. However, the past four years have witnessed dramatic changes. For

Chart 1: Distribution of Literature According to Pedagogical Factors



example, Wang (2010) testified the effectiveness of interactive model of interpreter training based on chunk memory. The interactive model, aided by modern educational philosophy and technology, lasted three months and it shows that students achieved greater completeness in comprehension, and more accuracy and fluency in delivering information. Last but not least, there arises a fresh phenomenon that researchers begin to draw on international experiences. Instead of confining themselves to local settings and on-campus classrooms, interpreting teachers give their attention to North America, Europe and Australia. Xiao and Zhang (2009) introduce the widespread over-the-phone interpreting (OPI) in USA. Liu (2011) discusses the functions, features and advantages of Black Box, a well-known ICT tool for interpreter training in Europe.

Indeed, the three stages are generally in line with the development of interpreter training practice in China. Before 2005, interpreting was treated either as an optional course or as a part of translation, so the studies were sporadic and few. The second phase was generally driven by the macro policy and in turn acted as a stimulant to research interest in a wider range. The rapid development of the latest period is partly due to the *College English Curriculum Requirements* (2007) launched by the Ministry of Education, which encourages widespread application of information technologies and integration of modern

technologies into the curriculum of interpreting. And it is partly thanks to the increasing market demand for qualified interpreters across China.

Pedagogical Factors

If a dichotomous approach is adopted, pedagogical factors can be divided into two categories: global factors and local factors. By this standard, training models and principles fall into the first category, while training materials, teaching strategies, autonomous learning, assessment and teacher/student roles belong to the second. Chart 1 shows the distribution of the 85 articles concerning the different pedagogical factors. In the following sections the factors will be discussed in detail.

Training Models and Principles

As shown in Chart 1 nearly 70% of the studies are concerned with training models and principles, suggesting that researchers tend to focus their attention on global (i.e. general) pedagogical issues. Training models are usually created under certain educational philosophy or theoretical assumptions. They are relatively stable and offer a guiding framework for local (specific) teaching and learning activities. When it comes to integrating ICT into interpreter training, researchers have proposed various

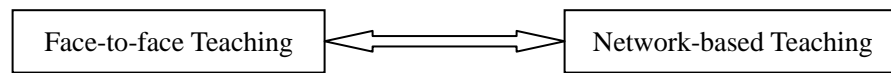


Figure 1. Blended Teaching Model

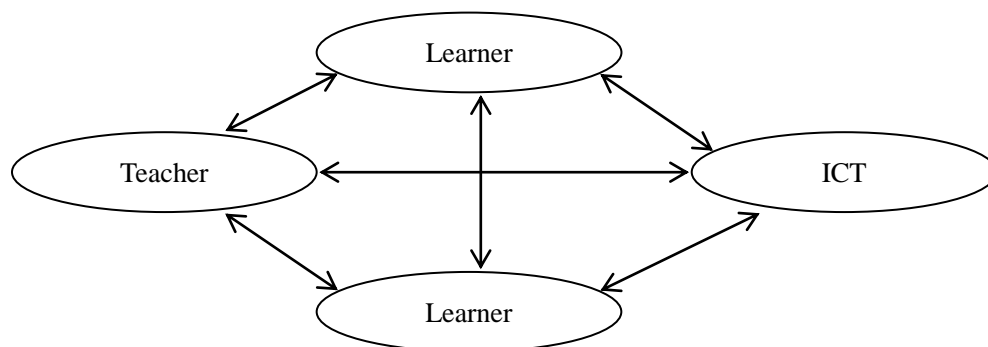


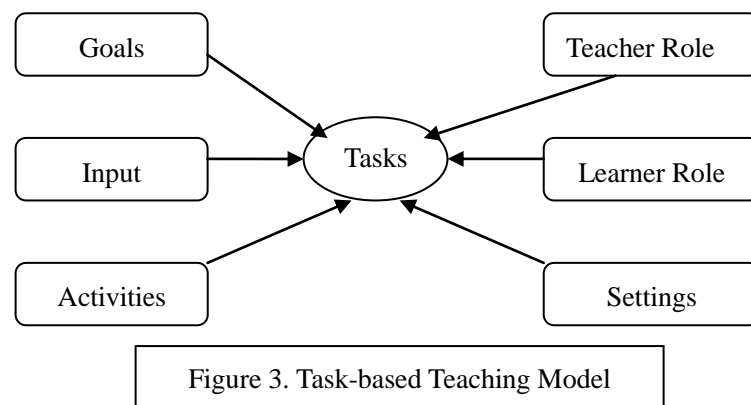
Figure 2. Multidimensional Interactive Model

teaching models from different angles. Among them, the following three models are quite typical.

The first model is proposed by Qin (2005) and Hou (2008) (see Figure 1). They start from the relationship between traditional visible classroom and network-based virtual environment. In order to strike a balance between the two settings, a blended teaching and learning model is proposed. This model is simple in expression and linear in construction. It centers on the question of “which is more efficient” by simply combining the traditional classroom and the virtual environment. The subtext suggests that both advantages should be combined. For instance, the traditional classroom features on-site experience, vivid demonstration, multisensory input and affective communication, while the virtual learning environment is characterized by flexibility of time and space, individual feedback, and less anxiety. However, this combined approach neglects the effect of such local factors as

learner motivation, monitoring of the learning process, workload of the trainers, and so on. Therefore, to maximize the learning efficiency and training effectiveness, it is important to reconsider the local pedagogical factors and seek an optimized solution.

The interactive model is proposed by Liu and Xu (2011) (see Figure 2). It identifies the multidimensional relationships among the teacher, the learners and ICT. To be exact, the teacher-learner interaction suggests that interpreting teaching is supposed to be a dual process, embracing both teaching and learning activities. The teacher-ICT interaction suggests that teachers may create materials from ICT database, design instructional plans on ICT platforms, deliver course content by ICT, and monitor learning activities through the ICT management system. The learner-learner interaction suggests that cooperative learning, group work, and peer evaluation are all encouraged. And the learner-ICT interaction suggests



that learners are supposed to make full use of ICT-based materials, practice interpreting skills with the aid of ICT tools, and conduct autonomous learning on ICT platforms. Generally speaking, this model elaborates the main interactive relationships in integrating ICT into interpreting teaching. Nevertheless, course objectives, instructional design and assessment cannot find their places there.

The task-based model proposed by Wang (2010) is the most elaborate model among the three (see Figure 3). It attempts to bring together all the important pedagogical factors in a single program, within which tasks are treated as the hub. The assumption goes that, through the central medium of tasks, interpreting teaching goals can be achieved, linguistic and encyclopedic knowledge can be provided, both teaching and learning activities can be conducted, teachers and students do their own part of work automatically, and settings naturally find their way there. However, there remain three questions. Are the six factors equally important? How do they interact with each other? What are the other factors like output, affection and assessment? Obviously, this model exaggerates the role of tasks. It is undeniable that tasks can help us create an authentic interpreting environment, integrate major pedagogical factors into a whole and coordinate interpreting teaching in a scientific way. But tasks may also disappoint us if we entrust them with the insurmountable mission of achieving the course goals, providing sufficient and multisensory input, designing

rational activities, and maximizing the potentials of teachers, students and settings all at the same time.

Since it is difficult to construct perfect and universally applied models, some researchers, such as Zhong (2011) and Liu (2011), prefer to prescribe teaching principles instead of formulating models. The main principles can be summarized in four aspects. Firstly, there ought to be a dynamic balance between traditional training means and ICT. The ratio and structure are subject to the specific interpreter training parameters. Next, interpreting skill development is expected to play a crucial role in any type of instructional design, as interpreting is fundamentally a skill-oriented course. Thirdly, materials ought to be both authentic and appropriate as it is required by the professional interpreting practice standard. Finally, the instructional design should tap the potential of ICT, and focus on the teaching objectives.

Training Materials

The literature concerning developing ICT-based interpreting materials mainly covers such topics as development principles, classification of course books, construction of interpreting corpus, copyright and development process. According to Liu (2011), the three principles of “authenticity, completeness and timeliness” should be taken as top priority in the development of materials for interpreting teaching either in form of paper

or multimedia. With regard to audiovisual and Internet materials, she adds some other criteria to the list, such as credibility, quality of audiovisual files, and workability. Other researchers also stress the importance of variety and practicality. Moreover, the five concepts in interpreting materials development are generally acknowledged: linguistic competence, interpreting skill, field interpreting capability, encyclopedic knowledge and awareness of cross-cultural communication.

According to the survey of interpreting course books that had been published between 1988 and 2008, Wen and Zhang (2009) summarize four major types: the comprehensive type, professional textbooks, skill introduction and examination preparation guide. Through an intensive study of the four types, they conclude that most domestic interpreting materials are paper course books and rarely supplemented with visual files. Indeed, sign language, gestures, eye contact, tones, accents, repetition, slips of the tongue, and illogical sentences are also essential components of field interpreting. Thus all these factors ought to be taken into account in interpreting material development. Visual materials can help students indulge in the on-site atmosphere, maintain sustainable concentration and facilitate interpreting practice.

The construction of interpreting corpus has been developing into a new research area. For example, Zhao and Sheng (2008) describe the process of self-creating interpreting corpus in terms of data collection, tagging tool design and data retrieval. In addition, Zhang (2012) argues that the following factors should be highlighted in the construction of interpreting corpus: multicategory heterogeneous corpora, larger corpus size, more precise tagging and transcription of paralinguistic expressions, information equivalence in interpreting corpus, and research and development of searching tools for interpreting corpus. Building interpreting corpus is a comprehensive project and calls for the concerted efforts from both individual trainers and policy makers.

Aiming at the handy audiovisual materials in this information age, Li and Wang (2010) emphasize the

importance of copyright awareness in the selection of materials for interpreting teaching. With the rapid development of modern information technologies, downloading and copying various online materials have become commonplace. Interpreter training benefits substantially from easy access to inexhaustible information flow. However, both teachers and students tend to neglect or ignore the issue of copyright, unaware of the quantitative criteria of the fair use of online sources in classrooms.

Based on a comprehensive analysis of the relevant literature, the process of ICT-based material development can be divided into three stages. Firstly, a classification system needs to be established before constructing the interpreting material database. The teacher ought to bear in mind the classification orientation before moving into concrete action. If we follow the instruction-learning orientation, the materials can be used for interpreting teaching or autonomous learning. If we define the interpreting course type, the materials can be either topic-based or skill-based. If we take the essentials of a professional interpreter into account, the materials can be produced in terms of linguistic knowledge, encyclopedic knowledge or professional ethnics for interpreters. Of course, if we define the materials according to formats, they can be categorized into text files, audio files or video files.

The tasks involved in the second step include collecting, editing, sequencing and grading. Original material collection happens in a wide range of areas: textbooks, newspapers, TV and radio news script, talk shows, audiovisual files, examination pools, online sources, to name just a few. To achieve the goal of workability and acceptability of the original materials, editing is a must. The teacher needs to take various factors into consideration, such as length, difficulty, interest, translation versions for reference and coherence. In addition, proper sequencing and grading are also necessary to ensure that the whole set of materials are arranged in a naturally sequenced and carefully graded

way.

The rest of the work is no less important. It involves storage, retrieval, improvement and upgrading. Many interpreting trainers praise the convenience of ICT application. Meanwhile, they may also complain about the tremendous amount of information and the terrifying upgrading tempo. In light of this, an important task is required for interpreting material storage and retrieval. Interpreting teachers are often anxious for localized and personalized teaching materials. So the construction of a user-based interpreting corpus becomes a necessity. In this case, they need to add parameters to the individualized corpus in terms of dates, topics, skills or interpreting types. This will certainly facilitate the storing and retrieving process. Further, it will pave the way for future improvement and instant upgrading.

Training Strategies and Autonomous Learning

Most researchers have discussed interpreter training strategies in an ad hoc way. For example, Chen and Li (2009) list several strategies for network-and-corpus-based interpretation teaching, including constructing small self-controlled corpora, encouraging students to search for information on the Internet, and promoting communication between teachers and students by means of e-mails, electronic bulletin boards, blogs and so on. Yan (2008) also introduces some specific strategies in the context of multimedia settings, such as making use of video materials and live recordings, viewing field interpreting video clips, and creating online learning platforms.

We can summarize the training strategies in four combinations. To begin with, we need to combine in-class learning with out-of-class learning. In the classroom, ICT may be put into use in form of PowerPoint delivering, live recording of students' interpreting performance, or playback of individual's facial expression. Outside the classroom, ICT may be in the form of online autonomous learning or computer-aided background information

searching. Next, we need to combine prepared materials with instant materials. Prepared materials tend to be more systematic, more precise in structure, and more complete in auxiliary materials, while instant materials are usually more up-to-date, more challenging and intriguing. Thirdly, we need to combine face-to-face teaching with virtual online teaching. The former features teacher demonstration, eye contact, verbal as well as nonverbal communication, and instant peer evaluation. The latter can be both synchronous and non-synchronous, thus creating a non-threatening environment for self-paced, individualized, self-directed learning. Finally, we need to combine intensive skill training with field interpreting practice. No matter how intensive the simulated ICT-based training program may appear, field interpreting practice is believed to be the ultimate solution to the substantial growth of a potential professional interpreter.

Despite the fact that only 6% of the entire literature is concerned with autonomous learning, the growth tendency in recent years is quite impressive. For instance, Liu (2010) constructs a learner-based interpreting self-regulating learning website. According to Liu, this website combines interpreting learning theory with computer technologies, focusing on interpreting skill development in a three-tier system according to the degree of difficulty, adding self-assessment to teacher assessment and putting students in the central role of autonomous learning. Therefore, this website fulfills the initial objectives of individualization, multi-channel input and instant feedback. In another case, Liu (2011) introduces the functions and application of *Black Box* in autonomous interpreting learning. Nearly all researchers agree with the intensive nature of interpreting skill development. And they also agree with the notion that interpreting skills cannot be grasped easily by trainees. The skills need to be practiced, digested, and put into actual field exercise. In this sense, autonomous learning is an inevitable topic and task that deserve serious consideration and deliberate research. Future studies are expected to explore the details of autonomous learning,

including learners' motivation, awareness, learning strategies, time and effort management, performance evaluation, and process monitoring.

Assessment and Teacher/Student Roles

The topics of assessment and teacher/student roles were least studied in the past decade. Few researchers have mentioned issues such as adding formative assessment to summative assessment, combining teacher assessment with self-assessment as well as peer assessment, and regulating the teaching pace and strategies based on students' feedback and regular interpreting tests. Indeed, the only monograph on interpreting assessment in China has so far been written by Cai (2007), entitled *Interpretation and Evaluation*. In this book, the author mainly focuses on the definitions, parameters and methods of interpreting evaluation, and makes a further classification in the evaluation of professional interpreters, interpreting teaching and interpreting research. But she fails to make comments on the evaluation of teaching interpreting in the context of modern information and communication technologies. It is obvious that the integration of ICT into the assessment of interpreting teaching would contribute substantially to the quantitative analysis of formative assessment, and offer opportunities for students' self-assessment and peer assessment. As all kinds of assessment means became routine, the positive backwash would surely shed light on timely adjustment of teaching materials, instructional designs and teaching strategies, thus contributing to the maximization of teaching efficiency and learning effectiveness.

As for teacher/student roles, researchers generally concentrate their attention on two aspects. On the one hand, they are concerned about the challenges interpreting trainers face in the context of rapid development of ICT. The most common topics are related to teachers' qualification verification, aptitude and capabilities, information literacy, and so on. On the other

hand, the multiple roles of teachers and students are also discussed. In the ICT-based teaching and learning settings, teachers are described as designers of materials and activities, knowledge disseminators, training content organizers, helpers, administrators and evaluators. And students are often portrayed as knowledge and skill constructors, cooperators, self-directing learners, information processors, and so on. As a matter of fact, the teacher-student relationship can be scaled on a continuum in a top-down or bottom-up style. In the top-down style, trainers have absolute power in controlling the class, and their direct delivering dominates the course. In the bottom-up style, students are fully responsible for their own progress and setbacks. Of course, extremes rarely occur in the interpreting teaching practice. In the integration process, ICT is closely associated with the notions of negotiations, cooperation, team work, democracy and autonomy. All these notions are reflected in the contemporary educational theory of constructivism. Thus, the roles of both teachers and students need to be reconsidered and reshaped in the ICT-based teaching interpreting program.

Technical tools

Berber (2010) proposes a typology of ICT used in conference interpreting. She identifies two types of ICT: the ICT for training and the ICT for professional practice. Within the first category, she continues to distinguish between information technology and communication technology. Apparently, this first-tier classification is purpose-oriented, while the second-tier is technology-based. When it comes to the practice in China, researchers tend to obscure the differences. Nevertheless, the first-tier classification is quite necessary. With regard to the second-tier, we propose to make a comparison between general and professional technical tools. This classification is largely of technical nature, for the simple fact that interpreter trainers in China currently choose either the general type or the professional one.

The general type encompasses ICT tools such as PowerPoint, e-mails, electronic bulletin board system, Podcast, Flash Media Server, blogs, QQ, audiovisual players, and so on. The majority of teachers tend to use the general type in the teaching process. Needless to say, any of the above tools can be of certain assistance to teachers in some aspect. But the problem is that these tools can only be partial solutions to the whole integration of the interpreting curriculum. These tools alone cannot meet the curriculum requirement. They need to be integrated into the curriculum. The other problem is that they are not technically efficient on certain occasions. Take QQ for example. QQ has been the most preferred online tool for instant communication among teachers and students. Teachers can upload media files in the QQ shared mailbox. The file can be a short notice, an assignment, an audio file, or a short video file. As we know, the audiovisual files need to be edited or clipped before being used as practice materials. There comes the first problem: QQ does not entail such functions. Moreover, as the teaching proceeds, various files need to be stored in an efficient way, for easy retrieval and upgrading at least. So, in this case, QQ can only be viewed as a perfect online communication tool instead of a professional interpreter training tool.

The professional type is still at the initial stage in China as well as the rest of the world. Apart from the introduction of foreign tools like Interpretations and Black Box, researchers have also been trying to develop softwares, designing specific online platforms and testifying the effectiveness of certain tools. In this area the Guangdong University of Foreign Studies has made some pioneering attempts. Apart from that, the Xi'an International Studies University, the Tianjin Foreign Studies University and some others have been experimenting with the Moodle, a popular course management system. This online system can serve as a platform integrating information technologies into the interpreting curriculum. Putclub, a popular website for English learning in China, has developed IPTAM (Interpreter Professional Training and

Acquisition Module). This software is primarily designed for autonomous interpreting practice, which consists of a six-step interpreting training module: source language repeat, consecutive interpreting exercise, intensive listening of the original text, sight interpretation, original text rehearsal and simultaneous interpreting practice.

Most researchers agree with the principles of applying information technologies to interpreting teaching. Firstly, technical tools should play the role as an assistant to interpreter training instead of a dominator over it. Secondly, the ultimate goal of using technologies is to enhance the training quality, effectiveness and efficiency. Thirdly, appropriate instructional design is of vital importance to developing the potentials of technologies. Instructional designs need to be based on teaching content, and all the pedagogical factors need to be taken into account, including learner factors, learning materials, feedback, evaluation, and so on.

DISCUSSION AND IMPLICATIONS

Generally speaking, the domestic research in the area has covered the major aspects of ICT-based interpreting teaching. However, there are also clear defects with regard to research perspectives, extensiveness and intensiveness, technical tools and research methods. The most prominent criticism lies in the overemphasis on macro perspectives. A large number of researchers tirelessly elaborate on the impact, teaching models and principles, while they seldom offer an in-depth insight into such specific issues as designing and application of ICT tools, and evaluation of teaching effectiveness. By contrast, relevant researches in the European Union, North America and Australia are more widely distributed and devote more attention to the local factors, such as training materials, autonomous learning and evaluation. Secondly, few scholars have launched the research campaign from a certain angle of interpreting teaching and have been contented with the partial solutions to the application of a single ICT tool, ignoring the holistic

curriculum structure. Thirdly, research on teaching management and teacher/student roles is scarce. Moreover, pedagogical factors concerning training materials, autonomous learning and assessment need to be further explored. More efforts should be made in the research and development of professional technical tools. And there is insufficient empirical research on teaching feedback, which is crucial and most convincing in testifying the effectiveness of ICT application.

CONCLUSION

During the past decade, there have been dramatic changes and impressive progress in interpreter training in China due to the comprehensive effect of technological innovations, government policy support, increasing demand for qualified interpreters, and the unremitting efforts from interpreting trainers and researchers. Meanwhile, relevant researches on interpreting teaching in the context of information and communication technologies have made steady achievements. Researchers have explored a wide range of pedagogical factors, including training models and principles, training materials and strategies, autonomous learning, assessment and teacher/student roles. Nevertheless, there still remains a lot of work to do. Chinese researchers may draw on international experience to broaden the horizons; professional interpreting training tools need to be developed, tried out and testified; the integration of ICT into interpreter training calls for the awareness of curriculum concept and educational theory; the extensiveness and intensiveness of research on pedagogical factors need to be reinforced; empirical research methods are to be encouraged to transform the experience-dominated situation; effectiveness and efficiency of ICT-based interpreter training are still subject to long-term objective evaluation. In light of the opportunities and challenges ahead, relevant researches in China are believed to grow steadily, thus contributing greatly to the international interpreting practice and

research.

REFERENCES

- Berber D (2010). *Information and Communication Technologies in Conference Interpreting: A survey of their usage in professional and educational settings*. Saarbrücken: Lambert Academic Publishing.
- Cai XH (2007). *Interpretation and Evaluation*. Beijing: China Translation & Publishing Corporation.
- Chen YM (2007). Advantages and disadvantages of modern information technology to the teaching of interpretation. *Journal of Language and Literature Studies*. 27(8):165-166.
- Chen ZD, Li L (2009). On the network-and-corpora-based interpretation teaching strategy. *Computer-Assisted Foreign Language Education*. 25(1):9-13.
- Hou T (2008). On the construction of applied blended learning model in interpretation course. *Modern Educational Technology*. 18(7):64-66.
- Jiang TH (2006). A system of English interpretation CAI based on .NET technology. *Computer Engineering*. 32(15):268-270.
- Li DH, Wang KF (2010). How to avoid copyright infringement of materials used in interpretation teaching: A survey of the practices in Hong Kong. *Chinese Science & Technology Translators Journal*, 23(2): 34-37.
- Liu HP (2011). *Interpreting Skills: Approaches to teaching interpretation*. Beijing: China Translation & Publishing Corporation.
- Liu J, Xu QM (2011). Research on the multi-dimensional model for teaching interpretation from the perspective of information technology. *Foreign Language Education*. 32(6):66-69.
- Liu ML (2010). The construction of a learner-based interpreting self-regulated learning website: Theory and practice. *Modern Educational Technology*. 20(7):129-132.
- Qin M (2005). Some new thought on the teaching models

- of interpretation in network environments. *Foreign Language Research*. 22(3):49-51.
- Wang JH (2010). A probe into the interactive model of oral interpretation training test based on chunk memory. *Foreign Language Research*. 27(3):134-139.
- Wen J, Zhang YQ (2009). A study of interpreting textbooks published from 1988 to 2008. *Shanghai Journal of Translators*. 23(2):48-52.
- Xiao XY, Zhang M (2009). Over-the-phone interpreting in the US: Professional status and theoretical analysis. *Shanghai Journal of Translators*. 23(1):30-34.
- Xu LM (2007). Number interpreting training with the multi-language interpreting system. *Computer-Assisted Foreign Language Education*. 29(4):49-53.
- Yan YX (2008). Interpreting teaching reform in the environment of multimedia technologies. *Liaoning Education Research*. 28(7):91-92.
- Zhang W (2012). Interpreting corpus and relevant researches in the last decade: Present conditions and oncoming trends. *Journal of Zhejiang University (Humanities and Social Sciences)*. 57(2):193-205.
- Zhao HZ, Sheng W (2008). On the construction of small interpretation teaching corpus. In: Zhang W, Wang F (eds) *Proceedings from the 2008 International Symposium on Research and Application of Educational Technology in Foreign Language Education*. Wuhan: Hubei Education Press, pp 29-33.
- Zhong WH (2011). Requirements for teaching translation in undergraduate degree programs in China. *Chinese Translators Journal*. 29(3):20-24.