



A Case Study of the ICT-Aided Blended Teaching Model for Consecutive Interpreting Courses in the Digital Age

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Abstract. Virtual learning empowered by ICT (information and communication technology) burgeoned amid the Covid-19 pandemic and became a powerful weapon for a transition from the traditional teaching model to the blended one in the digital age. This paper presents and evaluates the application of the ICT-aided blended teaching model based on Flipped Classroom for consecutive interpreting courses in two classes of 70 students, which features digitalized teaching and big data analysis enabled by the ICT-powered online teaching platform Chaoxing. Both quantitative and qualitative data were collected from the students' learning records and an online questionnaire. The findings showed that the ICT-aided blended model, compared with the traditional one, was preferred among the students and effective in improving their autonomous learning ability and practical interpreting skills. Teaching implications were drawn to optimize the effect of the blended model.

Keywords: ICT-aided blended teaching model · digitalized teaching · big data analysis · Flipped Classroom · consecutive interpreting courses

1 Introduction

In the digital age featuring the 5G technology, AI, big data and ICT (information and communication technology), breakthroughs and transformations are being made across all fields, including education. Aided by ICT, many online teaching platforms are emerging, where the whole process of teaching and learning can be digitalized. On these ICT-based platform, even AI and big data are adopted to empower the analysis of online teaching and learning statistics for the sake of more scientific teaching design and assessment. The above-mentioned technologies have played a more prominent role since 2020 when the outbreak of Covid-19 led to the rise of online learning worldwide, with numerous online courses created and offered and many best practices of online teaching generated during the pandemic. Even when schooling has been resumed in most parts of the world nowadays, the development of online learning is still accelerating. To adapt to the new trends of online education in the digital age, an ICT-aided blended teaching model for interpreting courses should be constructed and applied.

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Interpreting courses offered in higher education institutions aim to produce high-caliber interpreters to meet the needs of the market [1]. Nevertheless, the traditional offline teaching model for interpreting courses has been haunted by such problems as a shortage of diverse training approaches, absence of hands-on practices, unsatisfactory student performances [2], insufficient face-to-face teaching sessions, and a lack of a fully-fledged interpreting teaching model aided by modern information technologies [3]. Obviously, it is difficult to realize the goal of interpreting courses with the traditional teaching model, which therefore requires a transformation.

Flipped Classroom is a feasible solution to the aforementioned problems inherent in the traditional teaching model for interpreting courses. Under this mode, theoretical learning is conducted before class and thus more time can be allocated to hands-on activities and practices in class. It is also an effective strategy and method for the online-and-offline blended teaching model (hereinafter referred to as “blended model”), which is a revolution in the ways of teaching and learning [4].

This paper presents a case study of the ICT-aided blended teaching model based on flipped classroom for English-Chinese consecutive interpreting (E-C CI) adopted by the School of Foreign Languages, Guangzhou Xinhua University, in the post-pandemic era in China, with a view to sharing a viable teaching model for the enhanced performance of interpreting trainees. To evaluate the blended model, action research was conducted to address the following research questions:

1. Will students prefer the blended model or the traditional one?
2. What are the advantages of the blended model compared with the traditional one?
3. What teaching implications can be drawn from the application of the blended model?

2 Literature Review

Concerning interpreting training, a phenomenal monograph entitled *Conference Interpreting: Trainer’s Guide* has presented a complete and comprehensive course illustration for both consecutive and simultaneous interpreting, including class design and configurations, interpreting skills, curriculum and progression, and testing and certification [5]. With the main focus on the face-to-face teaching model, it serves as a seminal guidance to the design of traditional interpreting courses but is not rightly suitable for the situation in the post-pandemic era when sporadic Covid-19 cases might urge universities to shift to online teaching abruptly. That being said, an online-and-offline blended teaching model should be adopted to accommodate to the new trends. This coincides with China’s Ministry of Education’s advocacy of high-quality undergraduate education through the development of five types of top-notch courses, including those adopted the blended model, with great support in terms of policies, organization, mechanism, appraisal, and funds [4].

To date, previous studies have proposed various definitions of “blended teaching model”, for instance, it is a combination of face-to-face and computer-assisted teaching in a single teaching and learning environment [6]. Nonetheless, in this gadget-craving society backed by the rapid proliferation of cutting-edge Information and Communications Technologies, online learning, also known as distance learning or virtual learning, is done via a great variety of mobile Internet-based electronic products, such as laptops,

tablets and cellphones, without limitation to computers anymore. Therefore, the authors of the paper define “blended teaching model” as the integration of face-to-face teaching with ICT-based online learning.

Parameters that shaped the blended learning experience in the context of language learning and teaching have been found out as follows: modes, model of integration, distribution of learning content and objectives and assignment of purpose, language teaching methods, involvement of learning subjects (students, teachers and computers), and location [6]. Besides, surveys and interviews of trainers and trainees have been done with regard to both consecutive and simultaneous interpreting courses in the School of Translation and Interpretation, Beijing Foreign Studies University, the findings of which have corroborated the feasibility and effectiveness of online delivery in general, described the process of online mode adoption, pointed out some deficiencies of the new teaching paradigm, room for improvement and the attitude changes of trainers and trainees, thus posing some challenges to the application of the distance mode and video conferencing technology [7, 8]. In addition, some universities have applied the online mode for their translation and interpreting degrees with the help of ICTs and such specific tools as Audacity, Soundcloud, Discussion Forum, E-mail and Blog [9, 10].

Comparisons have been made between online and offline education. For interpreting courses, the common denominators of the two modes of learning include trainee-centeredness, cultivation of interpreter competence, and course design based on real-life features of interpreting, contents delivery and stringent tests, while the differences lie in assignments, application of ICTs for classes and tests [11]. Furthermore, Polat et al. have compared those two modes for the circular design course, revealing that students prefer the on-campus versions over the online course components because the latter are perceived as a mode that lacks motivation and a sense of community but imposes a high workload on the students, while teachers identify the virtual mode as an advantage to their teaching and student’s learning experiences despite a lack of teacher-student connection [12].

On the basis of the Community of Inquiry theory raised by Randy Garrison et al., a blended teaching model composed of pre-learning, while-learning and post-learning stages incorporates the advantages of online and offline learning to foster students’ problem-solving skills and cognitive capacity, which meets the requirements of top-notch courses characterized by organic combination of knowledge delivery, capability cultivation, innovation and challenges [13].

Interpreting teaching has been gaining momentum in China, with great improvement in teaching facilities but little change in teachers’ quality, teaching processes, methods and teaching materials. Interpreting course design should take course positioning into consideration. As Bao points out, interpreting courses designed for undergraduate English majors serve as a complementary means to foster their language proficiency, and such courses can also contribute to the production of competent future interpreters by solving some main problems in training students’ way of thinking, ensuring time spent in practices and creating proper teaching materials [1]. Therefore, the Practicerearcher (Practitioner + Teacher + Researcher) Model, which defines the interpreting teaching

4.0 in China, has been put forward, in which interpreting is taught by seasoned interpreting professionals with teaching and research experiences, and with market-oriented teaching processes, methods and materials [14].

In light of the online learning trends in the digital era and the application-oriented positioning of interpreting courses, the School of Foreign Languages, Guangzhou Xinhua University, has designed, upgraded and adapted its own online and offline blended teaching model for CI courses by taking into account the research findings of the previous studies, and the realities of our facilities and students, which will be expounded in the following part.

3 Blended Teaching Model for E-C CI

3.1 Introduction to the Trainees and Trainers

Guangzhou Xinhua University (GXU) is a private university with a mission of producing application-oriented undergraduates. The pandemic has deprived the students' chances of taking the Test for English Majors Band 4 (TEM-4), the previous pass rates of which have always been low in GXU, indicating their relatively low language proficiency in English (B language). So, the language proficiency of the English majors in GXU currently can only be measured by College English Test (CET), an examination targeted at non-English majors with the pass mark being 425 out of 710. The best CET level that most subjects of the blended teaching model have achieved is only the intermediate Band 4 (CET4), with a pass rate of 90% and a failure rate of about 4% (see Table 1). That means they are less eligible as interpreting trainees than an interpreting training course requires. Therefore, a well-designed blended teaching model should be adopted to replace the traditional offline model so as to stimulate the learning motivation of the students and maximize the efficacy of the interpreting course.

Interpreting skills training is performance-intensive, requiring detailed and individual attention and feedback. Since in each class each student shall get at least one turn and personalized feedback, the optimal class size is less than ten students, ideally three to six for a two-hour class in most stages of the course [5]. However, in GXU, a larger size of class is inevitable, with 35 students each (see Table 2). Therefore, to ensure students' active participation and fair share of attention from the instructors, performance recording, pair work, group discussion, presentations and some other means of teaching with an emphasis on individual performance have been integrated into the blended model.

Given the language combination of the students as Chinese nationals, "bi-active" classes are organized for students working both ways between two languages (A-B and

Table 1. Students' CET4 Results

Test Results	Number of Students	Ratio
Passed	63	90%
Failed	3	4.29%
Not taken	4	5.71%

Table 2. Class Size and Composition

Class	Size	Male	Female	Language Combination
Class A	35	33	2	Chinese (A)-English (B)
Class B	35	30	5	Chinese (A)-English (B)

Table 3. Instructors’ Qualifications

Name	Teaching Experience	Language Combination	Degree
Gao	14 years	Chinese (A)-English (B)	MA in Conference Interpreting
Chen	8 years	Chinese (A)-English (B)	MA in Interpreting Studies

B-A) [5], i.e. Chinese-English/English-Chinese CI. It requires a team of fully or near-bilingual instructors. Arguably, teachers make or break an interpreting course. The two instructors in charge of the course meet the requirements of the Practeasearcher (Practitioner + Teacher + Researcher) Model established by Lu, as they are not only active professional interpreters with rich experience, but also well-equipped with pedagogical and class management skills, feedback and demonstration expertise, theoretical knowledge, and the human qualities necessary for an interpreting instructor, such as empathy, fairness, sense of humor, imagination, the ability to empower students and alertness to strains and stress [14]. On top of their extensive engagement in academic research, their qualifications are shown as follows in Table 3.

3.2 Description of the Blended Model

The ICT-Aided Blended Teaching Model based on Flipped Classroom consists of two parts, namely, the PIA Learning Mode and the 3D Classroom Mode (see Fig. 1). These two modes are systematically interconnected to support the blended teaching and learning processes of the consecutive interpreting course. The PIA Learning Mode encompasses pre-class learning, in-class learning and after-class learning which are dedicated to theoretical learning, skill training and skill application respectively in the 3D classroom mode, i.e. the online classroom, the physical classroom and social practice.

The virtual learning and online classroom of the blended model are based on Chaoxing, an ICT-powered educational tool that takes the form of a website and application, enabling mobile learning to happen anytime and anywhere. The online learning platform allows teachers to upload and share with students digitalized courseware, teaching videos and other learning materials, and enables teacher-student and peer interactions via direct message, group chat, discussion board or videoconference. Besides, it helps to realize formative assessment of students with the support of big data analysis, for example, it can keep track of students’ classroom attendances and performances, online discussion and assignment completion, and generate a comprehensive profile of students’ virtual learning statistics.

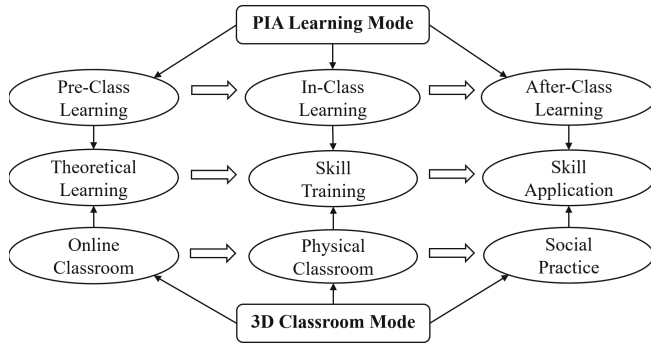


Fig. 1. ICT-Aided Blended Teaching Model Based on Flipped Classroom.

- 1) Pre-class online learning stage: The pre-class learning stage takes place virtually before the face-to-face teaching session. The students will log on the Chaoxing online platform or application, which plays the role of an online classroom, to study the MOOC course titled Interpreting delivered in English by the lecturers from Guangdong University of Foreign Studies. In this stage, the students will independently learn the sub-skills of CI at the theoretical level, such as short-term memory training and note-taking. Considering the comparatively weak foundation of the students in both languages, Chinese mini-lectures made by the instructors and pertinent exercises will also be provided as complementary materials. If the students have any question or puzzle, they can firstly initiate a discussion in the Chaoxing group chat or on such instant messaging apps as QQ or WeChat. Typical or unsolved questions will be collected and answered by the instructors during the offline session. That allows students a high level of autonomy with abundant chances of self-study, self-reflection and peer collaboration.
- 2) In-class offline learning stage: The in-class learning is conducted face-to-face in the physical classroom, which is made up of four parts.
 - a) Discussion: The instructors will, through Q&A or discussion, help to solve the students' puzzles that they encounter in the pre-class learning stage. This hopefully will foster the students' abilities of exploration, critical thinking and independent learning.
 - b) Demonstration: The instructors teach by example, demonstrating the sub-skills of consecutive interpreting to the class.
 - c) Thematic interpreting: Each sub-skill will be practiced with teaching materials concerning a certain topic of great concern in the society, such as Covid-19 control and prevention, climate change, corporate social responsibilities (CSR) and cultural development (see Table 4). Interpreting exercises will highlight student-centeredness with the instructors playing the role of "facilitators". For example, peer evaluation is firstly encouraged among the students after each segment of exercise before the instructors give immediate comprehensive feedback on their performances. The instructors' evaluation and the students' peer evaluation are based on the assessment form shown in Table 5.

- d) Mock conferences: In the last two weeks of the semester, mock conferences will be organized by the students to simulate the real working situation where they can better drill their interpreting skills. Additionally, veteran interpreters will be invited to be the guests and share their practical experience, aiming to broaden students’ horizons and deepen their understanding of the real life of this profession.
- 3) After-class online and offline learning stage: To bridge the gap between “declarative knowledge” and “procedural knowledge” [15] when students are acquiring the skills of CI, an hour of face-to-face teaching session shall be conducted in conjunction with two hours of practices after school [1]. With the principle of learning from doing, the after-class learning stage is extremely critical in filling the declarative-procedural gap, during which students are supposed to carry out the following three tasks.
- a) Practice: To hone the sub-skills taught in class, students should finish their interpreting assignments after class with the authentic speech recordings and videos in the online speech bank created by the instructors on the cloud storage platform Baidu Netdisk.

Table 4. Sub-skills and Topics of the Consecutive Interpreting Course

Sub-skills	Topics
Active Listening	Covid-19
Short-term Memory	Corporate Social Responsibility
Note-taking	Climate Change
Deverbalization	Culture
Interpreting Figures	Foreign Trade
Public Speaking	Gender Equality
Work Ethic	Artificial Intelligence
Pre-task Preparation	Intellectual Property

Table 5. Assessment Form Based on the Parameters Developed by Guangdong University of Foreign Studies

Construct	Parameter
Content (40%)	Accuracy (20%)
	Completeness (20%)
Note-taking Deverbalization (40%)	Language Use (20%)
	Fluency (20%)
Communication (20%)	Coherence (10%)
	Effectiveness (10%)

- b) Observation: Students are invited to take part in international conferences as interpreting assistants, where they can observe how their instructors are working as professional interpreters so as to enrich their practical knowledge and pick up the coping tactics employed by their instructors.
- c) Internship: When there is an opportunity, top-performing students will be recommended as interns to interpret for international events or work in the “dumb booth”, applying in real-life situations both the skills and knowledge that they have acquired at school.

3.3 Data-Based Appraisal of the Blended Model

The instructors collected both quantitative and qualitative data about the blended model by means of students’ learning statistics and an online questionnaire distributed on wjx.cn, with 100% response rate. Altogether, 70 students in two classes were involved in the research, who took the course for 20 weeks in first Semester of the 2020–2021 Academic Year from September, 2020 to January, 2021. The result showed that the blended model was thought highly of by the majority of the students, around 78% preferring the online plus offline learning mode over the traditional offline one (see Fig. 2).

Compared with the traditional offline model, the blended model boasts the following four advantages.

Firstly, it can largely extend the total learning time. Students taught under the traditional teaching model used to have only 1.5 h of face-to-face class session per week. Under the blended model, however, the students were engaging in much longer periods of practices conducive to their conversion of declarative knowledge into procedural knowledge, with the total learning time being 4.5 h per week (see Table 6).

Secondly, it can enhance students’ autonomous learning ability. In both the pre-class and after-class stages, the students were taking the initiative to learn the skills and finish their practices on their own, which can facilitate their capabilities of self-reflection and self-improvement. This can be evidenced by the time they spent on independent virtual

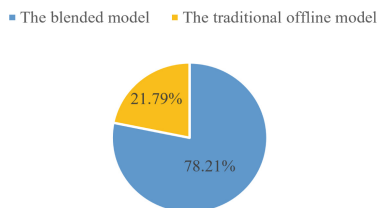


Fig. 2. Preference for Teaching Models by Percentage of Students.

Table 6. Duration of Each Learning Stage of the Blended Model

Stage	Pre-class	In-class	After-class
Duration	1 h/week	1.5/week	2 h/week

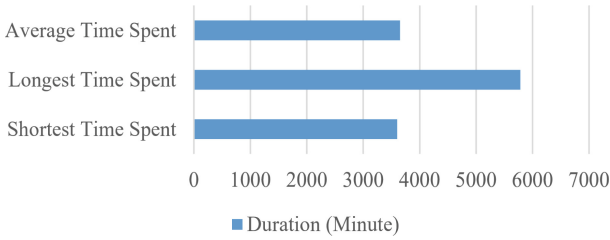


Fig. 3. Blended Model Online Learning Statistics (First Semester of the 2020–2021 Academic Year).

learning. As shown in Fig. 3, the average time they spent online stood at 3,650 min, with the longest being 5,783 min. Besides, according to our survey, about 97% of the students recognized that the blended model had promoted their autonomous learning ability (see Fig. 4).

Thirdly, it provides a scientific assessment of students’ performances. Traditional interpreting courses evaluate students by summative assessment with only quizzes or final exams, which is partial and unfair. The blended model offers a far more impartial and scientific assessment system consisting of both formative and summative means with a wide range of activities conducted in the pre-class stage, the in-class stage, the after-class stage and the final exam (see Fig. 5).

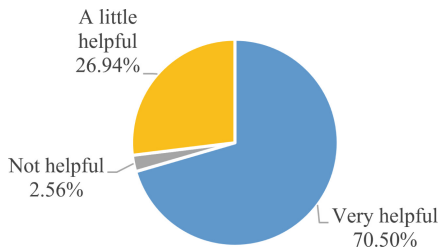


Fig. 4. Helpfulness of the Blended Model to Autonomous Learning by Percentage of Students.

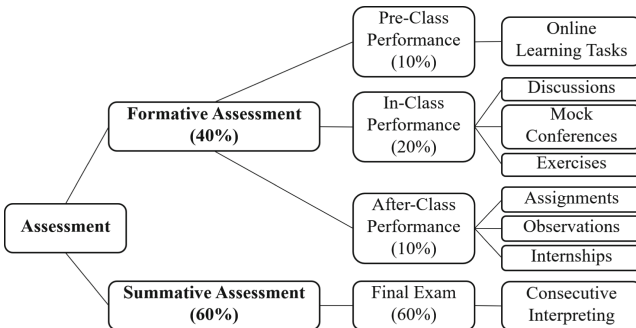


Fig. 5. Assessment of Students’ Performance

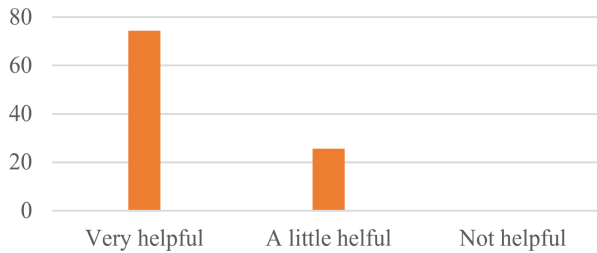


Fig. 6. Helpfulness of the Blended Model to Interpreting Skills by Percentage of Students

Fourthly, it can better hone students' practical interpreting skills. Compared with the traditional teaching model, the blended one has provided students with a range of hands-on opportunities since the theoretical learning session can be finished in the pre-class stage and thus more time and more chances are available for students to drill their interpreting skills in exercises and apply them in real-life situations. This can be supported by the questionnaire survey results: All the student participants agree that the blended model has played a positive role in improving their practical interpreting skills, of whom about 74% regard it as "very helpful" while about 26% think it "a little helpful" (see Fig. 6).

4 Teaching Implications

Based on the application of the blended model for CI in GXU, implications can be drawn to help instructors achieve better teaching effects in interpreting courses under the blended model.

Firstly, the principle of gradual progression should be followed. Known for their difficulty, interpreting courses pose daunting challenges to beginners, especially undergraduate students with relatively a weak foundation for their second language. Consequently, "low-hanging fruits" should be presented to students before they take on more challenging tasks in order to avoid anxiety, disorientation and demoralization. Instructors have to grade the difficulty of the teaching materials scientifically based on the students' learning curve.

Secondly, feedback from the instructor is a must. It is fair to say that students can never have too much timely and to-the-point feedback from their instructors, which is the basis for the improvement of their performances.

Thirdly, firsthand experience shared by veteran interpreters is a beneficial supplement to interpreting teaching. It is advisable for instructors to invite seasoned interpreters to engage in lectures as hands-on experience from the industry is a strong impetus for students' learning.

5 Conclusions

In the digital era, it is a trend to integrate interpreting education with the online learning mode powered by ICT. The ICT-aided blended teaching model for English-Chinese consecutive interpreting has yielded positive results in both the students' feedback and their performances.

With the combination of the PIA mode and the 3D classroom mode, this particular model is more welcomed by the students than the purely offline one and shows advantages in lengthening learning time, offering a more comprehensive assessment of student performances, and improving students' autonomous learning ability and practical interpreting skills. In the application of this blended model, it is important to ensure gradual progression, offer timely feedback and share firsthand industrial experience so as to optimize its efficacy.

However, this research has its limitation: the conclusions are only based on the data collected from two classes of 70 students at GXU. Therefore, more empirical studies are needed to ascertain the efficacy of such a blended model among a larger group of students in other universities with different language proficiency.

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