Research Article

The Effects of Blended Teaching and Multi-dynamic Evaluation Model in the Course of Integrated Skills of English

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Abstract
Objective: The purpose of this study was to explore the effects of blended teaching and multi-dynamic evaluation model in the course of Integrated Skills of English (ISE) in English as a Foreign Language context at tertiary level.

Methods: This study employed the methods of calculation of the total course scores, a survey and interviews. Thirty students in a teacher training program in a western Chinese university voluntarily participated in the study. All of them completed the survey and fifteen of them were randomly selected for the interviews upon completion of the teaching practice in ISE course.

Results: The results of the study displayed that ISE blended teaching and multi-dynamic evaluation model could significantly improve participants' learning outcome of the total course scores, promote perceived learning abilities such as self-regulation, communication skills and learning tools using skills. Besides it would enhance their learning motivation in terms of learning autonomy, learning expectations, learning efficacy and engagement.

Conclusion: The results showed the blended teaching and multi-dynamic evaluation model had significant effects on improving students' learning outcome, self-regulation, communication, digital skills and learning motivation. Additionally, this model had no effect on the promotion of higher-level learning abilities like critical thinking and creativity skills. The findings of the study could provide pedagogical implications for blended teaching practice and the evaluation approaches.

Keywords: blended teaching, multi-dynamic evaluation, ISE, EFL, empirical study

1 INTRODUCTION

With the rapid advancement of education informatization in the field of English as a Foreign Language (EFL) and the emergence of MOOCs and mobile learning, EFL teaching is facing great opportunities and challenges. The blended teaching model is gradually becoming critical to solve the contradictions between traditional EFL teaching and students' learning needs in the information age. The blended teaching model breaks the boundary of traditional classroom, and students can learn diverse course contents, such as courseware, readings and videos, etc., through laptop, iPad and mobile phone almost anytime and anywhere. It is clear to see that the traditional evaluation system, which only assesses students' classroom performance, written homework and final test, cannot adapt to this new teaching model. Therefore, only a multiple and dynamic evaluation of online learning and offline classroom learning can cater to EFL blended teaching and improve teaching quality.

In the field of EFL blended teaching research, scholars have conducted a great number of researches and achieved rich results from the perspectives of teaching design, influence factors, teaching effect evaluation. For example, Tomlinson and Whittaker[1] proposed that the designer of blended learning curriculum should consider four problems, namely, situation, teaching design, participants and evaluation. In a study conducted by Wang[2], the researchers explored the influence factors of blended teaching in a course of Life English Communication, and the findings indicated that teaching design, blended learning context, learning motivation, and learning autonomy were the important factors influencing the effects of EFL blending teaching. In another study, Liu and Li[3] constructed a multiple learning evaluation framework of blended teaching in a course of College English and found that the multiple evaluation framework could promote learning motivation and engagement. In addition, Jiang[4] did an empirical study on project driven blended teaching model in a course of English for academic purpose, and the findings showed that this teaching model could effectively cultivate students' academic English skills and improve academic English learning outcome. However, the existing literature in the field of EFL blended teaching had not extensively examined the effects of blended teaching and dynamic evaluation model in the context of EFL teaching in higher education. Therefore, based on the theory of dynamic assessment (DA), the present study was executed to examine the effects of the blended teaching and multi-dynamic evaluation model in Integrated Skills of English (ISE) course in EFL context in a western Chinese university. This study attempts to answer the following three questions:

(1) Can ISE blended teaching and multi-dynamic evaluation model improve students' learning outcome?

(2) Can ISE blended teaching and multi-dynamic evaluation model promote students' learning abilities?

(3) Can ISE blended teaching and multi-dynamic evaluation model enhance students' learning motivation?

2 LITERATURE REVIEW

2.1 Learning Outcome, Learning Ability and Learning Motivation

Measuring learning outcomes in EFL is crucial for assessing student progress, informing instructional practices, and continuously improving the quality of language education. It empowers both educators and learners and helps to create a more effective and learner-centered EFL learning environment.

Though it is popular in the literature, learning outcome does not have any clear definition and thus may have different interpretations for different researchers. The definition of learning outcome by Gagné et al.[5] referred to the essential knowledge and abilities that students should acquire in a course or program. Learning outcome referred to the observable and measurable knowledge, skills, abilities, attitudes, and competencies what learners acquire as a result of educational experiences or training programs[6]. These outcomes are the intended goals or achievements that learners are expected to demonstrate upon completion of a learning activity. In this study, learning outcome refers to the observable and measurable knowledge, skills and abilities reflected by the total course scores upon completing ISE blending teaching and multi-dynamic evaluation model. Learning outcomes were measured by multi-dynamic evaluation method in ISE blending teaching and were calculated by the total scores of ISE course in the study.

Recognizing and addressing learning abilities in EFL education is essential for ensuring effective and equitable language learning experiences. Oxford defined learning abilities in EFL as "encompassing a range of language learning strategies, such as goal-setting, self-monitoring, and self-evaluation, that learners utilize to enhance their language learning process"[7]. Learning abilities in EFL referred to the cognitive and metacognitive processes, such as analyzing, organizing, and evaluating information, which learners employ to acquire and use English language skills effectively according to Fahim and Pishghadam[8]. In this study, learning abilities refer to a range of cognitive and metacognitive processes in EFL blended learning context, such as critical thinking, creativity skills, self-regulation, knowledge integrating, problem solving, etc., which learners could use to achieve learning outcomes in ISE blending teaching and multi-dynamic evaluation model.

Learning motivation plays a pivotal role in EFL language acquisition. It sustains learners' engagement, supports perseverance, fosters positive learning experiences, and empowers learners to take control

of their language learning journey. Recognizing and nurturing motivation in EFL learners is essential for promoting successful and meaningful language learning outcomes. Gardner[9] pointed that learning motivation in EFL encompasses learners' attitudes, beliefs, and values about the importance and usefulness of learning English, as well as their personal goals and aspirations related to language acquisition. While Dörnyei[10] proposed that learning motivation in EFL referred to "the internal drive, desire, and willingness of learners to engage in language learning activities, pursue learning goals, and persist in the face of challenges". In this study, learning motivation refers to learners' learning autonomy, learning expectations and goals, learning efficacy and engagement in ISE course with blending teaching and multi-dynamic evaluation model.

2.2 Blending Teaching in EFL Context

The field of EFL instruction has witnessed notable advancements in educational technology over the past few decades. One of the prominent approaches that had gained attention was blended teaching, which combined traditional face-to-face instruction with online learning components.

Numerous studies have examined the effects of blended teaching in EFL instruction. For example, a study conducted by Yeh and Wang[11] examined the effects of blended teaching on EFL students' vocabulary learning. The study found that students in the blended learning group outperformed those in the traditional classroom group, indicating that integrating online activities with classroom instruction can facilitate vocabulary acquisition. Similarly, Yudhana[12] conducted a study to investigate the effects of blended learning on improving EFL reading skills. The result of the study indicated that blended learning significantly had positive impact on learners reading skills. Moreover, the findings revealed that integrating technology-based components alongside classroom instruction enhanced learners' engagement, motivation, and interaction, leading to improved reading comprehension outcomes.

Additionally, in a study by Wang and Vásquez[13], the researchers explored the effects of a blended teaching approach on EFL students' writing performance. The findings revealed that the blended learning group produced significantly better essays compared to the control group, indicating that integrating online writing activities could improve students' writing skills. Vo et al.[14] conducted a systematic review and meta-analysis to explore the impact of blended learning on EFL learners' writing skills. The analysis of 22 studies revealed that blended learning interventions positively influenced learners' writing abilities. The researchers observed improvements in content organization, grammatical accuracy, and coherence, suggesting the potential of blended learning in enhancing EFL writing proficiency.

Furthermore, Peng and Fu[15] investigated the effects of blended learning and learning motivation on learning outcomes. Findings from their study suggested that blended learning and motivation positively influenced students' self-efficacy and autonomous learning. The researchers concluded that learning motivation, which are vital for successful EFL learning, has a significant impact on learning outcomes in a blended environment. Grgurović and Nikić[16] investigated the impact of blended teaching on EFL students' motivation and engagement. The results showed that students in the blended learning environment reported higher levels of motivation and engagement compared to those in traditional classrooms, illustrating the potential of blended teaching to enhance students' affective factors. Li and Wang[17] examined 32 studies on blended learning in EFL higher education. Their findings suggested that blended learning significantly improved EFL students' language proficiency, critical thinking skills, and self-regulatory abilities. The authors concluded that blended learning could be an effective approach for EFL learners in higher education settings.

Although the previous studies had been conducted on the effects of blended teaching on different English language skills, motivation or engagement, there have been few studies investigating the effects of blending teaching and dynamic evaluation on learning outcome, learning abilities, learning motivation, etc. in EFL higher education context. Therefore, this study aimed to examine the effects of ISE blending teaching and multi-dynamic evaluation model on learning outcome, learning abilities and learning motivation in a pre-service teacher program in a western Chinese university.

2.3 The Theory of DA

According to Lidz and Gindis[18], the theory of DA is an evaluation method to explore and discover students' potential development ability through the interaction between teachers and students. Its theoretical basis is Vygotsky's social and cultural theory, and the concept of "zone of proximal development" is the core idea of DA theory[19].

DA emphasizes mutual understanding and in-depth communication between teachers and students to achieve the goal of common progress. This evaluation method can effectively give play to the existing level and potential ability of students, and evaluate the whole teaching process, including the test of intelligence level, the attention of cognitive development process, and the monitoring of students' learning progress. The task of teachers is to promote the development of students'

potential ability, provide immediate and situational feedbacks in the process of teaching and evaluation, so as to promote the expected development of students. DA is highly appropriate to the evaluation of blended teaching model, which has different learning stages and procedures to be evaluated. The application of DA in blended teaching model reflects the unity of teaching and evaluation, and the procedural, multiple and dynamic evaluation of the teaching and learning process.

Several studies employed DA in computer-mediated or blended learning environment, and provided insights into blended EFL teaching research. Veletsianos[20] investigated the use of DA in computer-mediated context, focusing on the integration of Twitter as a tool for collaborative learning in higher education. The study revealed the potential of DA to support EFL learners' development of critical thinking and communication skills. Through ongoing assessment, instructors could identify and address individual learning needs in real-time, ensuring effective online collaboration and learning experiences. In additional, Sung et al.[21] explored the integration of DA in blended learning environments, specifically for inquiry-based learning in EFL settings. The study demonstrated that combining DA techniques with blended learning approaches increased learner engagement, performance, and perceived learning outcomes. DA provided personalized feedback, guidance, and scaffolding, contributing to enhanced EFL learning experiences. Therefore, this study adopted DA to design multi-dynamic evaluation framework in ISE blended teaching.

2.4 The Framework of ISE Blended Teaching and Multi-dynamic Evaluation Model
The ISE course had built Small Private Online Course (SPOC) on Superstar platform and students could use Superstar mobile terminal app to learn the course. Online tasks, testing and interaction, offline attendance, classroom discussion, presentation, and homework were all included in daily performance. The formative evaluation and summative evaluation were combined to conduct multi-dynamic evaluation of the teaching process[22]. In a word, in the design of ISE blended teaching, students, teachers, resources, tasks, media, strategies, evaluation and other teaching elements were all integrated to construct the framework of the blended teaching model for students in pre-service English teacher program, as shown in Figure 1. The ISE blended teaching model had three learning stages, autonomous-learning before class, inquiry learning in class and consolidation learning after class, in order to improve learning outcome, learning abilities and learning motivation. Autonomous-learning tasks before class include SPOC resources learning, having online discussion and article readings, watching micro-lecture

videos and doing pre-class practice. Inquire learning tasks in class involve instructor's concise lecture, class discussion or inquiry, presentation, Questions & Answers, and individual instruction for needed learners. Consolidation learning tasks after class comprise extended online readings, online tests, offline written tasks, English contests or learners' achievement sharing.

The framework of multi-dynamic evaluation of ISE blended teaching was constructed based on DA theory as shown in Figure 2. The dynamic part of the evaluation includes formative and summative evaluation, each accounting for 50%. The multiple part of the evaluation includes testable evaluation, such as tests, mid-term or final examination, and non-testable evaluation, such as pre-class online learning, discussion, classroom attendance, interaction and presentation, etc.

2.5 Teaching Implementation
The ISE course was built into SPOC on Superstar platform. the learning resources of the SPOC included courseware, audios, micro-lecture videos, supplementary reading articles, video clips, exercise, tests, etc.

Students need to complete the pre-class learning tasks on SPOC platform through autonomous learning before class, but they could communicate in the online discussion area with peers or the teacher when they had any questions or problems. At the beginning of the new semester, the functions of the Superstar mobile terminal app, the course resources, the methods and contents of the course evaluation, etc. were carefully introduced to students. Take the first unit of the textbook 4, *Language*, as an example, and the teaching process was shown in Table 1.

In the online learning stage before class, students learned the course resources on SPOC platform and realized initial knowledge construction by Superstar mobile terminal app autonomously. According to the learning task list and guidance questions, students read text, articles, watched micro-lecture videos, do practice, and prepared two extra tasks in pairs or groups before class, to complete pre-class learning tasks in advance. The instructor adopted multi-dynamic evaluation model to assess learning at this stage, and gave timely feedback based on the data recorded on the platform.

In the classroom learning stage, knowledge internalization and transfer could be realized through deep learning. According to students' problems and questions in self-learning stage before class, the teaching contents and output tasks in class were designed to meet their leaning needs. First of all, the instructor gave a concise lecture on the important and difficult parts for the unit, and then students thought about, discussed and
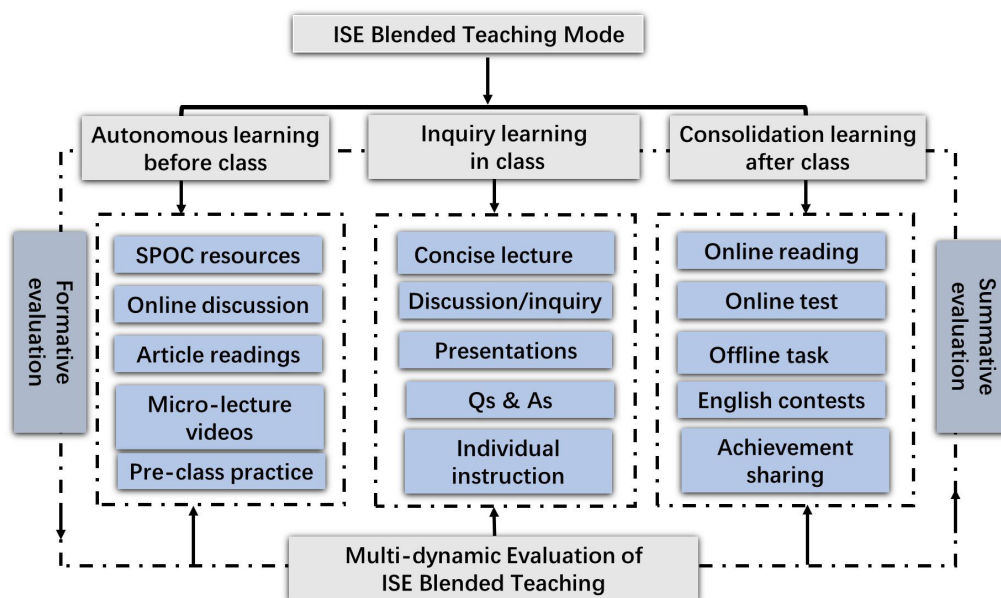
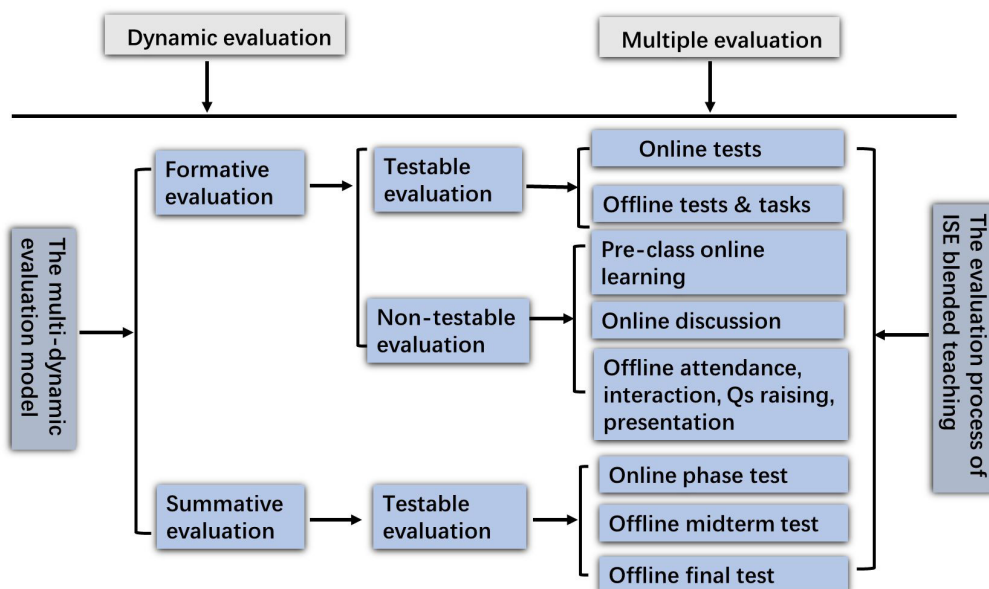**Figure 1. The framework of ISE blended teaching model.**

Figure 2. The framework of multi-dynamic evaluation model.

shared opinions and ideas on questions both before and in class learning stages. Next, the instructor gave individual instruction or counseling. After that, the additional learning tasks (comparison and display of Chinese and English traditional culture, observation and evaluation of kid English teaching videos) were reported and presented. One group usually chose one or two representatives to make the presentation, the rest of the students made comments on the presentation, and at last selected the best presenter. Then, the instructor gave 5min for free Questions & Answers. Finally, the instructor evaluated students' classroom performance from multi-dimensions and gave feedback in time. Finally, the instructor made a summary for the whole class.

In the online learning stage after class, assigning tasks such as extended reading, writing and unit test, discussion or answering questions, providing feedback and individualized guide, etc., helped to consolidate the important points of the unit. When students came across questions, they could communicate in discussion area online with peers or the instructor. In addition, instructors encouraged students to participate in a variety of English skills and ability competitions on district, provincial, municipal or national level, so as to further realize the transformation of knowledge, skills to ability. In this stage, the instructor implemented formative evaluation through more data on the platform and written, audio or video homework, sometimes also uploaded to the platform, to form students' multi-dynamic e-portfolios of

Table 1. The Teaching Process: Unit 1 as An Example

Learning Content	Online Learning Tasks before Class		Classroom Learning Tasks		Online Learning Tasks after Class	
	Teacher	Students	Teacher	Students	Teacher	Students
Text background, Culture knowledge and new words	Assign tasks; post thinking questions of the text; release new words test.	Listen to the text audio; Paraphrase new words; Complete pre-class tasks and vocabulary test.	Give feedbacks on pre-class learnings and further discuss representative problems and questions.	Ask or answer questions; participate in discussions of other questions.	Answer questions; have T & Ss exchange; Provide needed guide.	Background knowledge revision; Culture knowledge revision; New words revision; Have Ss & Ss interaction.
Courseware and micro-lecture video	Upload the courseware and micro lecture videos, etc.; Release thinking questions in the forum.	Finish pre-class learning tasks; answer questions in the forum.	Use inquiry and flipped classroom to have discussions and instruct the learning of the text.	Ask or answer questions; answer from teachers and students; Participate in the discussion.	Monitor learning process; Answer questions; have T & Ss interaction; Provide needed guide.	Courseware or lecture revision; Raise related questions; Have Ss & Ss interaction.
Extended exercises and tasks	Arrange extended exercises and tasks after class.	Complete after class exercises; Communicate online in the discussion area for problems; Finish two extra tasks.	Give feedback; evaluate learning; Provide individual help.	Make presentations of two extra tasks; Finish after class practice (vocabulary, grammar, translation, writing, etc.).	Monitor learning process; Giving feedback; Answer questions; have T & Ss exchange; Provide needed guide.	Finish extended tasks; Raise related questions; Have Ss & Ss interaction.

Notes: The textbook, New Communicative English comprehensive course, was edited by Zhong Weihe & Li Xiaoju. Beijing: Foreign Language Teaching and Research Press, 2017.

the learning process.

2.6 Teaching Evaluation

The ISE blended teaching model includes online and offline learning, so in the teaching process, "formative evaluation should be carried out, and the teaching contents and teaching strategies should be adjusted appropriately according to the feedback from formative evaluation"[23]. Therefore, according to the multi-dynamic evaluation model of ISE blended teaching, simultaneous teaching and evaluation was implemented to realize assessment of learning, for learning and as learning. Based on the framework of multi-dynamic evaluation model, formative and summative evaluation accounts for 60% and 40% respectively. Formative evaluation includes online learning (20%), phase tests (20%), class performance (20%), while the summative evaluation contains final test (40%), as shown in Table 2.

3 METHODS AND PARTICPANTS

This study employed the methods of calculation of the total course scores, a survey and interviews to examine the effects of ISE blended teaching and multi-dynamic evaluation model. Two groups of students in a pre-service English teacher program from a western Chinese university, voluntarily participated in the study. The two groups took a standard national college English test band 4, the

intermediate English language proficiency test, before the study. A t-test of the mean scores of the two groups showed that there was no significant difference between them (P=0.078, P<0.005), which indicated that the two group were at the same English language level, that is, the intermediate language level. In addition, both groups didn't have blended learning experience before. Furthermore, there was no other difference for curriculum and instructors except ISE blended teaching and multi-dynamic model.

The first group, 30 students from class 2001, was taken as the experimental class, and the second group, 30 students from class 2002 as the control class, which still adopted traditional teaching and evaluation method. Most of the students in the two classes had a high interest in English learning, but their learning motivation, learning abilities, course scores, and English language proficiency, etc. need to be further improved.

The total course scores were calculated based on the multi-dynamic evaluation model in ISE blended teaching. The comparison of the total scores of ISE course for the two classes was to answer research question 1. The formative evaluation (60%), including online learning (20%), phase tests (20%) and classroom performance (20%), were measured according to the learning process recorded on the Superstar SPOC platform, phase test results, and teacher

Table 2. The Contents and Proportions of Multi-dynamic Evaluation Model

Evaluation Methods		Formative Evaluation		Summative Evaluation
Evaluation contents & proportions	Online learning (20%)	Phase tests (20%)	Classroom performance (20%)	Final test (40%)
	Courseware & video click rate (10%)	Online & in-class tests (10%)	Attendance (5%)	Final test (40%)
	Discussion area usage frequency (10%)	Mid-term test (10%)	Interaction (5%)	
			Presentations (10%)	

evaluation portfolios. The summative evaluation (40%) was measured by a written final test. The experimental class and the control class took the same final test, the contents of which were compiled in strict accordance with the requirements of the course syllabus. The final test was composed of listening comprehension (10%), multiple choice questions in vocabulary & grammar (10%), cloze (10%), reading comprehension (20%), blank-filling (10%), translation (20%) and essay writing (20%). The proportion of subjective and objective questions were 50% to 50%, and the full score is 100 points (P). The final test not only examined students' mastery of important language knowledge, but also inspected their language use abilities, critical and creative abilities.

A questionnaire on students' perceived improvement of learning abilities and learning motivation was developed based on teachers' reflections and the instructor's reflections in ISE blended teaching with references to Learning Process Questionnaire by Vermunt and Vermetten[24], Motivated Strategies for Learning Questionnaire by Pintrich[25], and Academic Motivation Scale by Valleran et al.[26]. The survey was designed aiming to answer research questions 2 and 3. The survey included 10 items of learning ability improvement, including the abilities of critical thinking, creativity skills, self-regulation skills, knowledge integrating skills, problem solving skills, communication skills, teamwork skills, inquiry skills, practical work skills, learning tool using skills; and 5 items of learning motivation enhancement, involving the aspects of learning autonomy, learning expectations, learning goals, learning efficacy, and engagement. All the items were based on a five-point Likert scale, with five options ranging from "strongly disagree" (1 point) to "strongly agree" (5 points) for each question. The Cronbach's alpha coefficient of the 15 items in the survey was 0.9140. The KMO measure was greater than 0.800, and Barlett's spherical test was significant ($P<0.001$), indicating that the scale had good reliability and validity.

The interview included 5 open questions concerning the views of ISE blended teaching and multi-dynamic evaluation model, including the effects of this model, the improvement of learning outcome, learning abilities, learning motivation, and problems or suggestions to this

model. 30 questionnaires were distributed and 30 valid ones were collected. 15 students, selected randomly from the experimental class 2001 using the function of picking a person by shaking the smart phone through the Superstar mobile terminal APP, took part in interviews to talk about their views and opinions on ISE blended teaching and multi-dynamic evaluation model. Each interviewee was given approximately 10min. The interviews were recorded and later transcribed. The interviews were conducted to gain a deeper understanding of the students' perceived viewpoints of learning outcome, learning ability and motivation improvement in this experimental teaching practice.

4 RESULTS AND DISCUSSION
4.1 The Improvement of Learning Outcome
After one semester's ISE blended teaching and multi-dynamic evaluation practice, the learning outcome of the total scores of ISE course was calculated according to the formative and summative proportions in the multi-dynamic evaluation model. The total scores of ISE course for the two classes were shown in Figure 3.

The total scores of ISE course for the two classes were input into SPSS 19.0 for independent sample t-test of the average value. The calculation results were shown in Table 3. From the statistical results, the average scores of the experimental class were 5.92 higher than that of the control class, and the t-test result $P=0.002$, indicating that there was significant difference in the total scores of ISE course between the experimental class and the control class. It could be seen that the blended teaching and multi-dynamic evaluation model had a significant effect on the improvement of students' learning outcome of the total scores of ISE course.

The results of the study confirmed Li and Wang's study that blended learning significantly improved EFL students' language outcome and language proficiency[17]. Jiang[4] also found that project driven blended teaching model could effectively cultivate students' academic English skills and improve academic English learning outcome. DA theory stresses mutual understanding and in-depth communication between teachers and students were
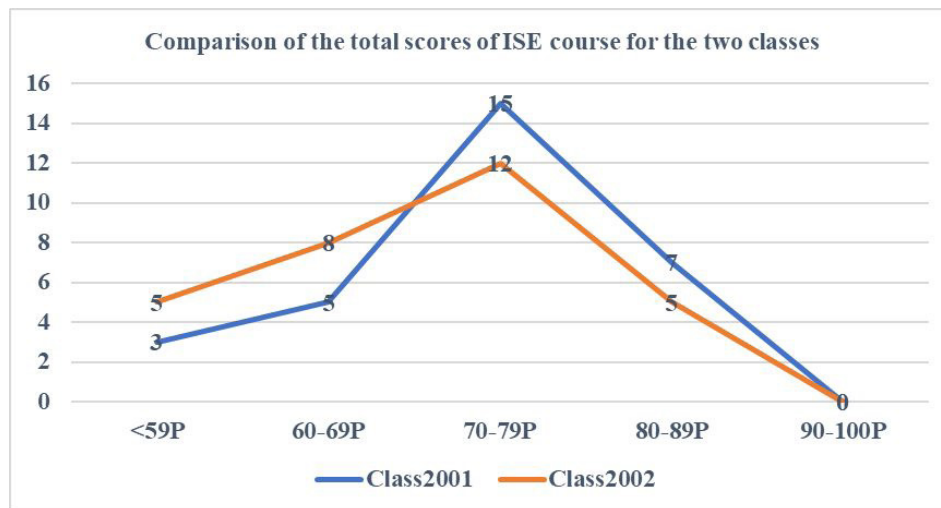
Figure 3. The learning outcome of ISE course for the two classes.

Table 3. The Total Scores of ISE Course for the Two Classes

	N	Aver.	SD	T	P
2001	30	77.65	7.634	3.542	0.02*
2002	30	71.73	6.512		

Notes: *$P<0.05$ means significant difference.

Table 4. The Results of Learning Ability Improvement Survey

Learning Ability Aspects	1	2	3	4	5
Critical thinking skills	30.00%	10.72%	38.79%	15.66%	4.83%
Creativity skills	20.53%	11.08%	43.53%	21.25%	3.61%
Self-regulation skills	4.01%	5.10%	37.62%	47.38%	5.89%
Knowledge integrating skills	2.73%	5.36%	36.18%	50.01%	5.72%
Problem-solving skills	8.04%	5.49%	39.21%	40.13%	6.13%
Communication skills	3.12%	5.11%	35.12%	51.47%	5.18%
Teamwork skills	4.21%	6.57%	38.18%	45.11%	5.93%
Inquiry skills	3.51%	7.50%	41.17%	42.15%	5.67%
Practical work skills	8.15%	6.44%	39.78%	40.12%	5.51%
Learning tools using skills	2.07%	4.01%	41.29%	47.58%	5.05%

Notes: Strongly disagree=1, Disagree=2, General=3, Agree=4, Strongly agree=5.

helpful to achieve learning goals and promote the expected development of students. According to ISE blended teaching and multi-dynamic evaluation model, the online and offline learning content, tasks, activities, interactions, feedback, and evaluation aspects were designed to promote the interactions and communications between the teacher and students, and improve students' language proficiency, learning outcome and course scores. This finding could provide implications for the design of course content, interaction activities and feedback in EFL blending teaching and evaluation practice.

4.2 The Promotion of Learning Ability

The results of learning ability improvement survey (shown in Table 4) indicated that about 52% of the students perceived that such learning abilities, such as self-regulation skills, knowledge integrating, communication skills, team work skills, learning tools using, etc., were improved. In terms of abilities like problem solving skills, practical work skills and inquiry skills, about 46% of students believed these abilities were also improved. But most students held that there was almost no improvement in terms of critical thinking and creativity skills.

Additionally, in the interviews, most students held that this model improve their learning abilities like communication skills, learning tools using, self-regulation skills, etc. Specifically, 13 students agreed that the online

and offline interaction in this model improved their communication skills significantly. 12 students believed that this model helped to boost their abilities to regulation their learning, integrate knowledge and utilize learning resources as well as online learning tools. For example, one student said in the interview, "In this semester, I have better self-regulation. I really learned a lot about how to use the online learning tools to integrate related materials on classroom discussion topics, and this enabled me to think more deeply about these topics, improve my analytical, inquiry, and presentation skills". Another student mentioned that "compared with traditional teaching model, I believe I improved my ability to supervise and regulate my learning better in this new teaching model, and I also learned some English learning strategies, like making plans, having revisions and doing online tests, etc." In terms of critical thinking and creativity skills, only three students mentioned that they didn't seem to be improving in these capacities.

From the above, it could be noted that ISE blended teaching and multi-dynamic evaluation model improved students' certain learning abilities such as self-regulation skills, knowledge integrating skills, communication skills, team work skills, learning tools using skills, while higher-level learning abilities like critical thinking and creativity skills had almost no improvement.

These findings of this study were consistent with Li and Wang's result in which self-regulation ability was significantly enhanced[17], but their result of critical thinking improvement was completely opposite to that of this study, while other learning skills such as communicative skills, information integration skills, team work skills and learning tools using skills were not addressed in their findings. In this study, critical thinking and creativity skills were hardly improved, and this may be due to the fact that the instructional model has only been in place for one semester and the improvement of these two abilities was not yet evident, or it may be caused by the fact that the enhancement of these competencies requires the co-curricular cooperation of other courses. DA evaluation method emphasizes promoting the existing levels and potential abilities of the student. ISE blended teaching and evaluation model were aimed to promote the development of students' learning abilities such as self-regulation, communication, teamwork, inquiry, critical thinking, etc. These findings in this study can be useful in designing, implementing, and evaluating learning ability enhancement goals in blended teaching mode, especially for higher-level learning abilities, such as critical thinking, creativity, and problem solving, etc.

4.3 The Enhancement of Learning Motivation
As shown in Table 5, more than 84% of the students approved that the ISE blended teaching and multi-dynamic

evaluation model helped to enhance their learning autonomy. In addition, about 87% of the students agreed that this model could improve their learning expectations, and more than 85% of them consented that this model was advantageous to help them achieve learning goals. Furthermore, about 88% of the students believed that this model could improve their learning efficacy, while only about 83% of the students approved that this model could promote their engagement in the class.

What's more, in the interviews, most students mentioned that their learning motivation, learning autonomy, learning expectation, learning efficacy and engagement were enhanced significantly. For example, 11 students commented in the interview that this model motivated them to learn autonomously almost every day and achieved learning goals better. 10 students preferred the blended teaching model because it improved learning efficiency, and made the learning purpose and direction much clearer. 13 students believed that this model increased learning motivation and helped them participate in more classroom activities. Additionally, 9 students pointed out that this model could provide timely feedback, which was helpful to discover learning problems in time. Three students also mentioned that the online and offline tasks could be further improved to alleviate their learning load in this model.

On the whole, according to the results of the survey and the interviews, ISE blended teaching and multi-dynamic evaluation model could enhance students' learning motivation in terms of learning autonomy, learning expectations and goals, learning efficacy and engagement.

The results of this study were consistent with the findings of Peng and Fu[15] that blended learning positively influenced students' motivation, self-efficacy, and autonomous learning. In addition, the findings of Grgurović and Nikić[16] also showed that blended teaching had significant impact on improving EFL students' motivation and engagement. Furthermore, Liu and Li[3] found that the multiple evaluation framework could promote learning motivation and class engagement in EFL blended learning context. These findings could provide meaningful insights into the design of EFL blended instruction and evaluation to enhance students' learning motivation, learning autonomy, engagement, etc., so as to improve students' learning outcome and learning abilities.

5 CONCLUSION AND IMPLICATIONS
The study investigated the effects of blended teaching and multi-dynamic evaluation model in the course of ISE in Chinese higher education context. It contributes to scholarly understanding and the practical implementation of blended teaching and evaluation for EFL education at tertiary level. The findings revealed that blended teaching and multi-dynamic evaluation model had significant

Table 5. The Results of Learning Motivation Enhancement Survey

Learning Motivation Aspects	1	2	3	4	5
Enhance learning autonomy	\	1.45%	14.0%	76.15%	8.40%
Improve learning expectations	\	4.21%	7.21%	80.77%	7.81%
Achieve learning goals	\	5.93%	8.44%	80.13%	5.50%
Improve learning efficacy	\	7.33%	9.69%	81.56%	7.42%
Promote engagement in the class	\	7.02%	8.25%	72.79%	11.94%

Notes: Strongly disagree=1, Disagree=2, General=3, Agree=4, Strongly agree=5.

effects on improving students' learning outcome, self-regulation, communication, digital skills, and learning motivation. Additionally, higher-level learning abilities like critical thinking and creativity skills were identified with no improvement in this model.

However, several limitations of the study need to be addressed. Firstly, as data were collected from a small number of EFL class in pre-service teacher program in a western Chinese university, the findings of the study may not be directly applicable to blended teaching in secondary education or other research contexts. Secondly, the study lasted only one semester during the EFL blended teaching practice, and it is thus possible that the findings would have been different if the study had been conducted in a much longer period of time. Thirdly, the framework of the blended teaching and multi-dynamic evaluation model was constructed based on DA theory and the consideration of the learning content, needs and characteristics of an EFL course, and therefore, it may not be immediately relevant to courses in other disciplines.

Despite these limitations, the study provides valuable insights into blended teaching and evaluation model, and has some significant implications for EFL education at tertiary level. In the first place, instructors may need to have a careful design, strict organization and scientific implementation of blended teaching and evaluation in order to achieve distinctive teaching effects. Of course, there is no fixed model for blended teaching and evaluation, which needs continuous exploration and innovation with new theories and trends in blended teaching. Only by innovative teaching design can blended teaching make EFL education full of vitality and charm. In the second place, instructors may also consider the complex influencing factors of blended teaching to enhance students' learning motivation, learning abilities and learning outcome.

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Conflicts of Interest
The authors declared no conflict of interest.

Author Contribution
Ma G and Yang X contributed to the manuscript and approved the final version.

Abbreviation List
DA, Dynamic assessment
EFL, English as a Foreign Language
ISE, Integrated Skills of English
SPOC, Small Private Online Course

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