

## **A case study of Chinese adult learners' English acquisition in a blended learning environment**

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*The study uses a pre-test, post-test experimental randomised control group design to examine the effects of a blended learning environment on Chinese adult learners' English acquisition. At the initial stage the study constructed a blended learning environment composed of three parts: task-based online learning, group-based peer learning and class-based traditional learning. Then the study chose two classes with no significant difference in their English abilities as experimental class (EC) and control class (CC) randomly. During the following term one teacher taught the EC and the CC with a blended learning environment or a traditional learning environment, respectively. At the end of the term, the study examined the learners' English abilities in the aforementioned classes. This study found that learners in EC significantly outperformed those in CC, especially in English writing abilities. The findings indicate that a blended learning environment can improve Chinese adult learners' English acquisition, especially their practical English abilities.*

**Keywords:** *adult learner; English acquisition; Blended learning environment*

## Introduction

In China adult education is not compulsory. Currently it is an important way for individuals to improve their working abilities. Adult learning in China was established as early as 1949, the year of the establishment of the People's Republic of China. In the first decade, adult education served as the most important strategy to eliminate illiteracy.

Unfortunately, from 1966 to 1976 Chinese society veered into a different direction. At that time, formal education in China was transferred into a 'moral cultivation institution'. As a result, the Chinese government forbade adult education. In 1978, the Chinese government re-established the adult education system. From that time on, tertiary adult education in China has developed quickly. In the 21st century, society is developing fast and science and technology are renewing rapidly. The nations are keeping pace with the era are required to be continually learning. Regarding this trend, the Ministry of Education of the People's Republic of China (2010) issued its *National Ten Year Educational Reform and Development Program (2010–2020)*. One of the three goals that the program established was to cultivate a learning society by 2020.

The *13th National Five Year Plan* (National Development & Reform Commission, 2016) reaffirmed the significance of lifelong learning, including expanding the channels of continuing education and lifelong learning; promoting education information; developing distance education and expanding the distribution of quality education resources. From then on, the numbers of adult students quickly increased. According to data issued by National Bureau of Statistic of China (2017), there were 12,293,212 adult learners studying in over 1500 universities.

Another important goal for adult education is to improve the quality of education. According to the People's Republic of China, adult college graduates are required to complete their adult learning tasks by studying and working part-time within three to four years. They must complete all the courses that other college students are required to complete.

Foreign language (English) acquisition is a compulsory course for adult college students. As adult college students lose the critical period of learning a foreign language (Bialystok & Hakuta 1994) and they are in different learning environments with other students (part-time working and learning versus full time learning), the challenges that they face, and the strategies and resources they use to overcome those

challenges, might be different from those that younger learners usually experience. In addition, previous studies have verified that adult learners are different to younger learners in terms of their working memory (Mackey, & Sachs, 2012). More recently, the Chinese education authority issued a requirement for English acquisition. According to the *National Requirements for College English Teaching and the Guideline of College English Teaching (draft)* (Ministry of Education of the People's Republic of China, 2017), one of the important tasks for college students' English language acquisition is to 'cultivate practical abilities of the target language'. Therefore, improving Chinese students' English language abilities – especially the practical abilities – is a heated topic for Chinese scholars and Chinese education authorities.

In June 2016, the Ministry of Education of the People's Republic of China (2016) delivered the 13th Planning of Education Information. This document states that a blended learning environment is a potential way to foster practical abilities in a foreign language:

*'An online combined with offline learning environment is more convenient for lifelong learning and building a learning society ... it is suggested to offer an online combined with an offline learning model for learners to improve their foreign language acquisition and their foreign language practical abilities.'*

Suggestions from the *13th Planning of Education Information* are untested hypotheses. Therefore, this study will examine whether a blended learning model can improve Chinese adult learners' English language acquisition, especially their practice abilities.

## **Literature review**

The concept of 'blended learning' (also called hybrid learning, technology-mediated instruction learning, web-enhanced instruction learning, mixed-mode instruction learning) emerged in 1960s as computers emerged. Initially, blended learning was applied in companies due to its effectiveness, adaptability and flexibility. After it gained widespread attention and became popular, blended learning was accepted in traditional education institutions. Currently, it is an increasingly prevalent term used to describe the combination of web-based technologies and face-to-face teaching, when comparing to more traditional course structures (Bonk, & Graham, 2006).

Usually blended learning brings together traditional physical classes with elements of virtual learning (Garrison, and Kanuka, 2004). It strengthens deep learning and practice abilities (Lou, Chen, Tsai, Tseng, & Shih, 2012). In recent years, blended learning is studied through the disciplines paradigm, as defined by Neumann, Parry and Becher (2002), such as in mathematics education (Trenholm, 2006), nursing education (Smith, Passmore, & Fraught, 2009), business education (Arbaugh, Bangert, & Cleveland-Innes, 2010), and rheumatology education (Stebbing, Bagheri, Perrie, Blyth, & McDonald, 2012).

Some scholars (Bekele, & Menchaca, 2008; Garrison, & Vaughan, 2008; Miyazon, & Anderson, 2010; Neumeier, 2005; Shih, 2010) focus their studies on blended learning and learning English as a foreign/second language. Neumeier (2005) puts forward a definition of blended learning and a framework of parameters for designing a blended learning environment. The parameters in his framework include six aspects: mode (focus on mode, distribution of modes, and choice of modes); model of integration (sequencing of individual modes, and level of integration); distribution of learning content, objectives and assignment of purpose (parallel or isolated); language teaching methods (use of teaching methods in each of the modes employed); involvement of learning subjects (interactional patterns: individual versus collaborative language learning activity, variety of teacher and learner roles, and level of autonomy), and location (classroom, home, outdoors, computer room institutional settings). Garrison and Vaughan (2008) believe that the core elements of a blended learning framework are composed of three parts: social, cognitive and teaching presence. They outline seven blended learning redesign principles, and give detailed examples such as an online syllabus, a lesson plan for the first week, discussion forums, assessment rubrics and other practical ideas and tips for designing a blended learning environment. They also explain the professional development issues essential to the implementation of blended learning designs and present six illustrative scenarios of blended learning design. Bekele and Menchaca (2008) investigate students' motivation, participation and satisfaction in a blended learning environment. They find that a blended learning environment is more a group and/or project-focussed learning environment. Their study shows that some 45% of studies report positive results in a blended learning environment, whereas 55% report no significant differences. Shih (2010)

establishes a blended teaching and learning model combining online and face-to-face instructional blogging. He examines the effects of his teaching and learning model and finds that his model can enhance student satisfaction by motivating them to learn effectively, as his model offers peer and instructor feedback, and has characteristics such as free access, ease of revision, and interesting learning materials. Miyazoe and Anderson (2010) examine the efficacy of learning to write in three blended learning environments in formal university education – forums, blogs and wikis, respectively. Their study reveals students' positive perceptions of the blended course design for online writing: wikis being the most favourable followed by blogs and forums.

Traditionally English language education in China prefers structural teaching methods, such as the grammar-translation method or the audio-lingual method. Before the 1990s, the grammar-translation method dominated English education classes in China. In this learning environment, teachers explain language knowledge to learners while learners try to remember all the language points. The grammar-translation method emphasises teaching knowledge rather than cultivating language abilities, especially oral and written abilities.

In the beginning of the 21st century, the blended learning environment was established in some universities in China. Many Chinese scholars have studied the effectiveness of a blended learning environment in foreign languages learning; the factors that influence performance in a blended learning environment, and the weakness of a blended learning environment in China. They found that as online learning can lighten learners' feeling of anxiety, a blended learning environment can improve the learners' listening abilities and speaking abilities (Hou, 2010), learning motivation (Wang, 2011), learning effectiveness and learning interests (Jin, Zhang, & Shen, 2012). At the same time, a blended learning environment can ease the learners' sense of isolation and strengthen their communication abilities (Shao, & He, 2014). Another study (Liu, & Zha, 2009) revealed that the learning strategy is the sole factor that affects learning performance. There are also some scholars studying the impediments of a blended learning environment. Shen (2013) designed and analysed three kinds of blended learning environments. He summarised the barriers to participate in a blended learning environment in China, including the lack of a smartphone, poor learning software, low speed of campus Wi-Fi, and students' lack of self-control.

All the aforementioned studies in China take regular Chinese college students as their research subjects. Adult students in China are different from regular students in many aspects. Usually they have stronger self-control and their study time is fragmented. Theoretically a blended learning environment is more beneficial to adult students. However, studies on the English language acquisition of Chinese adult students in a blended learning environment are rare. The sole study in this field was conducted by Yao (2017), which compares the differences between adult learners with better academic performance and those with worse academic performance in four aspects of English language acquisition. It finds that a blended learning environment in some ways can help learners overcome anxieties and cultivate autonomous learning abilities; those with better academic performances in English language acquisition have low levels of anxieties and strong autonomous learning abilities.

Previous studies have verified that a blended learning environment can improve regular college students' English learning performance (Hou, 2010) and help adult learners overcome anxieties and cultivate autonomous learning abilities (Yao, 2017). From the aforementioned literature, the current study gleans its first hypothesis that a blended learning environment can improve adult learners' learning performance. The *13th Planning of Education Information* delivered by The Ministry of Education of the People's Republic of China (2016) believes that a blended learning environment is a potential way to foster learners' foreign language abilities. However, no one has verified this statement. Therefore, our second hypothesis is that it is easy for learners to improve their practical abilities (such as writing abilities) in a blended learning environment. Finally, the current study proposes the following two hypotheses.

Hypothesis one: Compared with traditional learning environments, a blended learning environment can improve learners' learning performance.

Hypothesis two: Among varied language abilities, it is easier for learners to improve their practical abilities (such as writing abilities) in a blended learning environment.

### **Blended learning environment in current study**

In recent years the Chinese Higher Education Press offers an online learning platform to its customers, which is composed of some

interfaces such as lecture videos, tutorial videos, learning performances, assignments, quizzes, course materials, and course forums (see figure 1). This online learning platform offers an opportunity for building a blended learning environment.

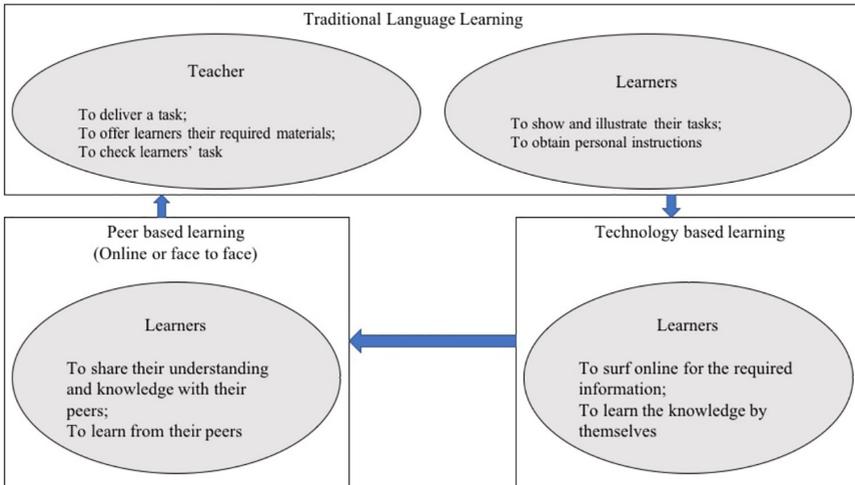
**Figure 1: The online learning platform**



Based on the literature of blended learning and the English teaching process, this study constructs a blended learning environment, which is composed of three parts: task-based online learning, group-based peer learning and class-based face-to-face traditional learning. In the blended learning environment, a teacher delivers learning materials, such as lecture videos and course materials, and some authentic tasks (such as writing an email to English native speakers, role-playing a negotiation in English, etc.) to the learners at the beginning of a learning process. Then learners research online for the required information and required skills to finish their tasks. At the next stage, learners share their understanding and their information of the task with their peers via the course forum or face-to-face with their peers. They are required to comment on their peers' tasks and learn from their peers. If learners have any difficulties, they can ask for help from their teachers through the Tutorial video. At the last stage, learners show their tasks to their teacher and the teacher checks the learners' tasks in a traditional class. The teacher will give some quizzes to the learners through the interface or in a traditional class. If the teacher finds some mistakes or limitations

on the learners' tasks, he or she will offer some personal instructions to the learners. Throughout the learning process, learners can monitor their performance through the Learning Performance interface (see Figure 2, which illustrates the new teaching model).

**Figure 2: A blended learning model**



## Research methodology

This study is approved by the Committee of Ethics and Integrity in Research with Humans in North China University of Science and Technology. It uses a pre-test, post-test experimental randomised control group design with one experimental group exposed to a blended learning environment and a control group taught in a traditional learning environment. The study aims to find the differences of learning performance between learners in a blended learning environment and in a traditional learning environment.

## Participants

The study selects participants from the School of Adult Education in North China University of Science and Technology. All students who apply for learning in college adult education are required to have completed high school education and mastered English grammar and 3000 to 4000 English words or expressions. In order to enrol in adult

education successfully learners are required to pass the Adult College Entrance Examination as well. English is one of the subjects in the Adult College Entrance Examination. However, there is no minimum English score required to enrol in adult tertiary education. In order to examine adult learners' English abilities, the study examined 240 Chinese adult students' English abilities in four teaching classes with an Adult College Entrance English Test Paper in December 2016. The examination results show that adult learners' English scores range from 128/150 to 46/150 and the average score is 92/150. Two teaching classes with 60 students in each with no significant differences in English abilities as well as in English writing abilities are selected as experimental class (EC) and control class (CC) randomly. All learners both in EC and in CC had learned English for more than six years by the time they enrolled in the teaching class. The average age of the adult students in EC is 25.2 years old while 25.4 years old in CC.

### ***Instruments***

The study applies an Adult College Entrance English Test Paper as the pre-test instrument, which is composed of six parts: reading (40% of the total expected score), cloze (20% of the total expected score), writing (16.7% of the total expected score), vocabulary (10% of the total expected score), daily conversation (10% of the total expected score), and phonetics (3.3% of the total expected score). The post-test instrument in the study is constructed by English teachers, and composed of five parts: reading (40% of the total expected score), cloze (20% of the total expected score), writing (20% of the total expected score), vocabulary (10% of the total expected score), and daily conversation (10% of the total expected score). The interview outline is another instrument in the study, which offers data about the learners' attitudes toward a blended learning environment. Data obtained from the interview will be used to explain the qualitative findings in the study. The interview outline includes three questions:

1. Do you like the blended learning environment and why?
2. Do you think a blended learning environment is a better learning environment for adult learners' English acquisition than a traditional one, and why?
3. In which way, do you think the blended learning environment can be improved?

## **Procedures**

The study comprises an experimental design. At the beginning of the study, two teaching classes with no significant differences in English abilities as well as in English writing abilities are selected as EC and CC randomly. Learners in EC took part in a one-day workshop on blended learning and on how to use the learning platform at the beginning of the semester, which guaranteed learners could access the abilities of learning in a blended learning environment. In the following semester learners in EC were taught in a blended learning environment. At the very beginning of the term the teacher of EC uploads all the teaching materials (including teaching syllabus, teaching schedule, assignments, and teaching video) to a learning platform ([http://manage.tangshanedu.com/student\\_new/login.asp](http://manage.tangshanedu.com/student_new/login.asp)). The adult learners are required to study the subjects in the platform and discuss what they have learned with their peers on course forum interface in the learning platform or face-to-face with each other. Every 3 or 4 weeks, the adult learners have an opportunity to meet their teachers face-to-face in a traditional classroom. The teacher checks the students' acquisition and solves the students' problems or questions in their study. In the whole sixteen-week term, the adult learners met their teachers in their classroom six times. The same teacher teaches the adult learners in CC with the traditional method. That is, the students meet their teacher every week in a traditional classroom and their lecture is teacher-centred. After each lecture the teacher delivers the teaching syllabus, teaching schedule, and teaching video to the learners. These are used as the learning materials for learners to review what they have learned. At the same time the teacher also delivers some highly relevant and authentic tasks for learners as their assignments. After sixteen weeks at the end of the term students in both EC and CC participate in their final examination (the post-test). Then, the study analyses the differences of the post-test score and the writing score between EC and CC with SPSS 22.0 software. At last, an in-depth follow-up interview is conducted in order to obtain deeper insights about their opinions on English acquisition in a blended learning environment.

## **Data analysis**

On December 2016 the study tested some adult college students' English abilities in four teaching classes with an Adult College Entrance English

Test Paper. Then the study compared the differences of pre-test scores among four classes with the help of SPSS 22.0 software. The analyses results are shown in Table 1.

**Table 1: The pre-test results of the differences of English scores among four teaching classes**

(I) class	(J) class	Mean Difference (I- J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
1	2	6.550*	1.807	.002	1.741	11.359
	3	12.017*	1.807	.000	7.208	16.826
	4	6.333*	1.807	.003	1.524	11.143
2	1	-6.550*	1.807	.002	-11.359	-1.741
	3	5.467*	1.807	.017	.658	10.276
	4	-.217	1.807	1.000	-5.026	4.593
3	1	-12.017*	1.807	.000	-16.826	-7.208
	2	-5.467*	1.807	.017	-10.276	-.658
	4	-5.683*	1.807	.011	-10.493	-.874
4	1	-6.333*	1.807	.003	-11.143	-1.524
	2	.217	1.807	1.000	-4.593	5.026
	3	5.683*	1.807	.011	.874	10.493

\*The mean difference is significant at the 0.05 level.

The analysis results reveal that the differences of pre-test scores between class two and class four are nonsignificant ( $p = 1.000 > 0.05$ ) while significant between class one and class two ( $p = 0.002 < 0.05$ ), between class one and class three ( $p = 0.000 < 0.05$ ), between class one and class four ( $p = 0.003 < 0.05$ ), between class two and class three ( $p = 0.017 < 0.05$ ), and between class three and class four ( $p = 0.011 < 0.05$ ). The study, therefore, chooses class two and class four as EC and CC. The

study also examined the differences of the score in sub-parts of the pre-test (such as the score of phonetics, of writing, of daily conversation, of reading, of cloze, and of vocabulary) between class two (EC) and class four (CC) with the help of the software SPSS 22.0. The results are in table 2.

**Table 2: The pre-test results of the differences of English scores between EC and CC**

	t	df	Sig (2- tailed)	Mean difference	Std. error difference	95% Confidence interval	
						Lower bound	Upper bound
Pre-test	-.127	118	.899	-.217	1.707	-3.596	3.163
Phonetic	2.456	118	.016*	.550	.224	.107	.993
Writing	-.089	118	.929	-.033	.376	-.778	.711
Daily conversation	3.864	118	.000*	-1.533	.397	-2.319	-.748
Reading	-.814	118	.417	-1.133	1.392	-3.891	1.624
Cloze	4.476	109.753	.000*	3.200	.715	1.783	4.617
Vocabulary	3.167	118	.002*	-1.267	.400	-2.059	-.475

\*The mean difference is significant at the 0.05 level.

The results illustrate that there are significant differences between EC and CC in the phonetic score ( $p = 0.016 < 0.05$ ), the daily conversation score ( $p = 0.000 < 0.05$ ), the cloze score ( $p = 0.000 < 0.05$ ), and the vocabulary score ( $p = 0.002 < 0.05$ ), while no significant differences in the pre-test score ( $p = 0.899 > 0.05$ ), the writing score ( $p = 0.929 > 0.05$ ), and the reading score ( $p = 0.417 > 0.05$ ). Therefore, reading scores and writing scores of EC and CC are also analysed in the post-test.

During one term of sixteen weeks adult learners in EC and CC were taught by the same teacher in a blended learning environment or a traditional learning environment, respectively. Learners both in a blended learning environment and in a traditional learning environment are required to finish some authentic tasks in their language acquisition

(EC) or as their homework (CC). For example, when the learners study the first unit Someone Waiting, they are required to role play a waiting event; studying the second unit Football they are required to perform a debating competition on the topic of Chinese football. At the end of the term, students in both EC and CC participated in a post-test (their final examination), which included five parts: reading (40% of the total expected score), cloze (20% of the total expected score), writing (20% of the total expected score), vocabulary (10% of the total expected score), and daily conversation (10% of the total expected score). After collecting all the post-test scores, the study compared the differences of the post-test scores between EC and CC. As the pre-test results show there are no significant differences in the writing and the reading scores between EC and CC, the study examined the differences between the writing and the reading scores in the post-test, either. The results are illustrated in table 3.

**Table 3: The post-test results of the differences of English scores between EC and CC**

	class	mean	Sig (2- tailed)	Mean difference	Std. error difference	95% Confidence interval	
						Lower bound	Upper bound
post-test	EC	65.2	.003*	3.467	1.134	1.220	5.713
	CC	61.8					
writing	EC	13.3	.000*	1.167	.355	.914	2.319
	CC	11.7					
reading	EC	24.4	.181	1.100	.817	-.519	2.719
	CC	23.3					

\*The mean difference is significant at the 0.05 level.

The mean score of the post-test, the writing, and the reading in EC and CC is 65.2 vs. 61.8, 13.3 vs. 11.7, and 24.4 vs. 23.3, respectively. Students in EC perform better than those in CC in all the aforementioned three aspects. T-test results illustrate that the differences between EC and CC are significant in the post-test score ( $p = 0.003 < 0.05$ ) and the writing test score ( $p = 0.000 < 0.05$ ) significantly, but nonsignificant

in the reading test ( $p = 0.181 > 0.05$ ). That is to say, a blended learning environment can improve Chinese adult learners' English acquisition, especially English writing acquisition.

After the post-test the study interviewed ten learners from EC. They were invited to talk about their opinions about learning in a blended learning environment. The analysing results reveal that almost all learners held positive attitudes toward a blended learning environment. 'Learning English in a blended learning environment cultivates my autonomous learning abilities'; 'Blended learning fosters my abilities to choose my own learning strategies and promotes my abilities to seek academic help'; 'In a blended learning environment I do not feel as anxious as learning in a traditional environment'; 'A blended learning environment offers me the opportunity to practice what I learned in daily life'; 'In a blended learning environment students have more chances to practice English with their peers'; 'It is convenient to learn English with fragmentary time in a blended learning environment'. Only one learner did not like learning in a blended learning environment. 'Without teachers' help, I don't know how to learn and what to learn'. In addition, students also pointed out some impediments to the blended learning environment. 'Sometimes I cannot access the learning platform as I cannot find Wi-Fi'.

## **Discussion and conclusion**

The experimental study examines the hypothesis delivered by the Ministry of Education of the People's Republic of China that instructing in a blended learning environment is a potential way to foster learners' foreign language abilities. The experimental results reveal that post-test scores and writing scores of Chinese adult students learning in a blended learning environment are significant higher than those learning in a traditional learning environment. The findings indicate that a blended learning environment can improve the learners' English performance, especially the English writing performance. The reading scores of Chinese adult students learning in a blended learning environment are higher than those learning in a traditional learning environment, but the differences are not significant. We, therefore, cannot conclude that a blended learning environment improves learners' reading abilities. The results of this study are similar to the study by Coryell & Chlup (2007), which indicated that e-learning components in adult English language classrooms are more successful.

Chinese scholars have been interested in factors affected Chinese learners' English language acquisition for a long time. A recent study (Yao, 2014) investigates the differences between learners with better English performance (top 40 among 138 learners) and worse English performance (bottom 40 among 138 learners). It finds that learners with better English performance have the following characteristics: strong autonomous learning abilities and the ability to seek academic help; low levels of anxieties; having the ability to choose his/her own learning strategies. The results of this study indicate that a blended learning environment can help learners 'overcome learning anxieties', 'cultivate autonomous learning abilities', 'foster the ability to choose their individual learning strategies', and 'promote the ability to academic help', which contributes a lot to improved performance of adult learners in English language acquisition.

A previous study (Castaneda, 2016) indicates that foreign language acquisition becomes more accessible when students receive feedback and help from various sources; in a traditional class, however, the feedback or corrections cause learners tension and anxiety, which has negative effects on their foreign language acquisition. In a blended learning environment, most of the feedback is conducted in a small group, even between two learners or a learner and his or her teacher. Therefore, learners are willing to get academic help and do not feel anxiety in their English acquisition. A previous study (Castaneda, 2016) revealed that adult learners are very self-conscious students and have an exceptionally strong sense of responsibility. In a blended learning environment, learners themselves have the responsibility to manage their learning activities, which contributes a lot to learners developing their ability to cultivate autonomous learning and choose their own individual learning strategies. With these abilities, learners will learn and practice more English. In a long run, their English performance will become better.

Traditionally in China, foreign language is taught in a teacher-centred learning environment with face-to-face instructing (Cao & Yao, 2016), in which the teacher transmits knowledge to students and students absorb the knowledge usually by rote memorisation. This kind of foreign language teaching emphasises the acquisition of knowledge, regardless of context (Celik & Ozbay, 2010), let alone knowledge practice. Another issue that needs to be pointed out is that foreign language teaching for

China's non-English-major students is usually in big classes, with more than fifty learners, and in some cases even more than one hundred adult learners. In a traditional learning environment one learner has limited opportunities to practice what she or he has learned in a lecture. Therefore, it is difficult for learners to improve their foreign language practical abilities, especially for adult learners (Castaneda, 2016). The current study, therefore, proposes a blended learning environment and a task-based teaching approach. Previous studies have proved that a blended learning environment can help learners to facilitate a simultaneous, independent and collaborative learning experience (Garrison & Kanuka, 2004); improve student attitudes towards their learning (Alexander, 2010); result in high levels of student achievement and are more effective than a traditional learning environment (Saritepeci & Cakir, 2015). Previous studies have verified that a task-based teaching approach can inspire students' learning interests and responsibilities (Vernon & Blake, 1993); motivate learners in their learning (Vernon, 1995), and foster deep learning by involving students with the interaction of learning materials (Zhang, 2009). In addition, task-based learning can develop in students the potential to determine their own goals and assume responsibility for their learning needs. In the current study learners both in EC and in CC were required to finish some tasks. However, these tasks were delivered as acquisition tasks in EC while as homework in CC. After 16 weeks the English performance, especially the writing performance, in EC was better than those in CC. From the aforementioned findings, we can conclude that a task-based learning approach in a blended learning environment is more helpful to Chinese adult learners than a task-based learning approach in a traditional learning environment. The aforementioned features of a blended learning environment and task-based learning approach meet the education goals of fostering learners' foreign language practical abilities. All the aforementioned factors contribute to the fact that learners learning in a blended learning environment perform better than those in a traditional learning environment, especially in the writing test. However, the study finds some limitations of a blended learning. It requires learner to access the Internet when they want to learn. Currently in China, especially in countryside, it is hard for learner to access the Internet through WI-FI. Therefore, the learning activities have to be suspended. Otherwise, the learning activities will become more expensive.

Looking back on the study, we find several limitations. Firstly, the study tries to examine the differences of learners' performance in a blended learning environment and in a traditional learning environment. In both learning environments, the teacher adopted a task-based teaching approach. However, tasks played different roles in these two learning environments. In a blended learning environment tasks are parts of learning activities while only homework in a traditional learning environment. Whether the different roles of tasks affect learning performance is still in the dark. When we discuss the findings in the study, it is hard to contribute the differences of English performance between EC and CC to the difference in the learning environments solely. Maybe other issues, such as the role of different tasks in the learning process, contributed to the different results. Secondly, the study tries to examine how a blended learning environment influences Chinese adult learners in all aspects of English acquisition, such as reading, writing, listening, speaking and translating. However, the study didn't find two classes that had no differences in all aspects in pre-tests. The study, therefore, only discussed the differences between EC and CC in overall scores, writing scores and reading scores. In future studies more constricted conditions should be considered and more students should be examined. Only in this way could we reveal the benefits of a blended learning environment to Chinese adult education.

## References

- Alexander, S. (2010). Flexible learning in higher education. In P. Peterson, E. Baker, & B. McGraw, (Eds.), *International Encyclopedia of Education* (3rd edition)(pp. 441-447). Oxford, UK: Elsevier. <https://doi.org/10.1016/B978-0-08-044894-7.00868-X>
- Arbaugh, J. B., Bangert, A., & Cleveland-Innes, M. (2010). Subject matter effects and the Community of Inquiry (CoI) framework: an exploratory study. *Internet and Higher Education*, 13(1-2), 37-44. <https://doi.org/10.1016/j.iheduc.2009.10.006>
- Bekele, T. A., & Menchaca, M. P. (2008). Research on internet-supported learning: a review. *The Quarterly Review of Distance Education*, 9(4), 373-405.
- Bialystok, E., & Hakuta, K. (1994). *In other words: the science and psychology of second-language acquisition*. New York: Basic Books. <https://doi.org/10.1017/S0272263100014947>

- Bonk, C. J., & Graham, C. R. (2006). *The handbook of blended learning: global perspectives, local designs*. San Francisco: John Wiley & Sons, Inc., Pfeiffer. <https://doi.org/10.1002/9781118269381>
- Cao, H., & Yao, C. (2016). The current situation of bilingual education and analysis of English education prospect of Hotan prefecture. *Journal of Research on Education for Ethnic Minorities*, 27(5), 112–117. <https://doi.org/10.15946/j.cnki.1001-7178.2016.05.017>
- Castaneda, S. B. (2016). Methodologies for teaching English to adult students in Spanish vocational education programs. *Journal of Professional, Continuing, and Online Education*, 2(1), 1–23. <https://doi.org/10.18741/P9KW2P>
- Celik, S., & Ozbay, A. S. (2010, November). *Teacher-centred versus student-centred learning: which approach is more effective in EFL classroom?* Paper presented at the 2nd International Youth Science Festival. Lviv, Ukraine.
- Coryell, J. E., & Chlup, D. T. (2007). Implementing E-learning components with adult English language learners: vital factors and lessons learned. *Computer Assisted Language Learning*, 20(3), 263–278. <https://doi.org/10.1080/09588220701489333>
- Garrison, D. R., & Kanuka, H. (2004). Blended learning: Uncovering its transformative potential in higher education. *The Internet and Higher Education*, 7(2), 95–105. <https://doi.org/10.1016/j.iheduc.2004.02.001>
- Garrison, D. R., & Vaughan, N. D. (2008). *Blended learning in higher education: framework, principles, and guidelines*. San Francisco: John Wiley & Sons.
- Hou, J. (2010). Research and practice of college English teaching in a blended learning environment. *E-education Research*, 30(5), 108–111. <https://doi.org/10.13811/j.cnki.eer.2010.05.002>
- Jin, Y., Zhang, G., & Shen, S. (2012). Application of blended learning in online writing course: an ecological perspective. *Open Education Research*, 18(3), 99–104. <https://doi.org/10.13966/j.cnki.kfjyyj.2012.03.003>
- Liu, W., & Zha, J. (2009). Effectiveness study of English learning in blended learning environment. *Foreign Languages and Their Teaching*, 26(10), 23–26. <https://doi.org/10.13458/j.cnki.flatt.000155>
- Lou, S., Chen, N., Tsai, H., Tseng, K., & Shih, R. (2012). Using blended creative teaching: improving a teacher education course on designing materials for young children. *Australasian Journal of Educational Technology*, 28(5), 776–792. <https://doi:10.1080/02602938.2011.572154>
- Mackey, A., & Sachs, R. (2012). Older learners in SLA research: a first look at working memory, feedback, and L2 development. *Language Learning*, 62(3), 704–740. <https://doi:10.1111/j.1467-9922.2011.00649.x>

- Ministry of Education of the People's Republic of China. (2010). *National Ten Year Educational Reform and Development Program (2010–2020)*. Retrieved from [http://old.moe.gov.cn//publicfiles/business/htmlfiles/moe/info\\_list/201407/xxgk\\_171904.html](http://old.moe.gov.cn//publicfiles/business/htmlfiles/moe/info_list/201407/xxgk_171904.html)
- Ministry of Education of the People's Republic of China. (2016). *13th Planning of Education Information*. Retrieved from [http://www.moe.gov.cn/srcsite/A16/s3342/201606/t20160622\\_269367.html](http://www.moe.gov.cn/srcsite/A16/s3342/201606/t20160622_269367.html)
- Ministry of Education of the People's Republic of China. (2017). *National Requirements for College English Teaching and the Guideline of College English Teaching (draft)* Retrieved from [http://www.sohu.com/a/125489097\\_488760](http://www.sohu.com/a/125489097_488760)
- Miyazoe, T., & Anderson, T. (2010). Learning outcomes and students' perceptions of online writing: simultaneous implementation of a forum, blog, and wiki in an EFL blended learning setting. *System*, 38(2), 185–199. <https://doi:10.1016/j.system.2010.03.006>
- National Bureau of Statistics of China. (2017). *China Statistical Yearbook*. Beijing: China Statistic Press.
- National Development and Reform Commission. (2016). 13th National Five Year Plan. Retrieved from <http://ghs.ndrc.gov.cn/ghwb/gjwnggh/201605/P020160516532440059919.pdf>
- Neumann, R., Parry, S., & Becher, T. (2002). Teaching and learning in their disciplinary contexts: a conceptual analysis. *Studies in Higher Education*, 27(4), 405–417. <https://doi:10.1080/0307507022000011525>
- Neumeier, P. (2005). A closer look at blended learning — parameters for designing a blended learning environment for language teaching and learning. *ReCALL*, 17(2), 163–178. <https://doi:10.1017/S0958344005000224>
- Saritepeci, M., & Cakir, H. (2015). The effect of blended learning environments on student's academic achievement and student engagement: a study on social studies course. *Education and Science*, 40(177), 203–216. <https://doi:10.15390/EB.2015.2592>
- Shao, Q., & He, L. (2014). Mode construction and empirical research on cooperative college English learning on the basis of Web and classroom environments. *Technology Enhanced Foreign Language Education*, 36(2), 31–35.
- Shen, D. (2013). To construct a blended learning environment with mobile platform. *The Chinese Journal of ICT in Education*, 19(10), 81–83.
- Shih, R. C. (2010). Blended learning using video-based blogs: public speaking for English as a second language students. *Australasian Journal of Educational Technology*, 26(6), 883–897. <https://doi:10.14742/ajet.1048>

- Smith, G. G., Passmore, D., & Faught, T. (2009). The challenges of online nursing education. *Internet and Higher Education*, 12(2), 98–103. <https://doi:10.1016/j.iheduc.2009.06.007>
- Stebbing, S., Bagheri, N., Perrie, K., Blyth, P., & McDonald, J. (2012). Blended learning and curriculum renewal across three medical schools: the rheumatology module at the University of Otago. *Australasian Journal of Educational Technology*, 28(7), 1176–1189. <https://doi:10.1016/j.sbspro.2012.11.368>
- Trenholm, S. (2006). An investigation of assessment in fully asynchronous online math courses. *International Journal of Educational Integrity*, 2(2), 41–55.
- Vernon, D. T., & Blake, R. L. (1993). Does problem-based learning work? A meta-analysis of evaluative research. *Academic Medicine*, 68(7), 550–563. <https://doi:10.1097/00001888-199307000-00015>
- Vernon, D. T. (1995). Attitudes and opinions of faculty tutors about problem-based learning. *Academic Medicine*, 70(3), 216–223. <https://doi:10.1097/00001888-199503000-00013>
- Wang, Y. (2011). Influence of blended learning on the English writing proficiency of Chinese college students. *Open Education Research*, 17(2), 81–87. <https://doi:10.13966/j.cnki.kfjyyj.2011.02.001>
- Yao, C. (2014). *Study on Identity and English Acquisition of Minority Preparatory Students in China*. Beijing: Guangming Daily Press.
- Yao, C. (2017). A case study on the factors affecting Chinese adult students' English acquisition in a blended learning environment. *International Journal of Continuing Engineering Education and Life Long Learning*, 27(1/2): 22–44. <https://doi:10.1504/IJCEELL.2017.080993>
- Zhang, L. (2009). Designing a PBL teaching model in an e-learning environment. *Journal of Ningxia University*, 31(4), 183–185.

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