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The Effect of WeChat-Based Instruction on Chinese EFL Undergraduates' Business English Writing Performance

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With the vigorous development of the Internet, the continuous application of social media platforms has accelerated people's channels to obtain information. WeChat Public Platform (WPP), as a mobile learning platform, is derived from the current popular social platform "WeChat", which can transfer text, pictures, video, audio and other multimodal information. Based on various functions of WPP, combining it with language teaching is one technique to realize blended learning so that learners can experience a novel learning mode. Some issues have surfaced in present Business English Writing (BEW) class for Chinese EFL undergraduates, including a lack of teaching time, students' psychological anxiety about BEW, and a rigid evaluation process. This study mainly applies WPP in Chinese EFL undergraduates' BEW class and investigates whether WPP can help improve students' BEW performance and enhance students' interest in learning BEW. Quantitative and qualitative research methods were adopted, and 80 Chinese undergraduates were involved in this quasi-experiment. By analysing the experimental results and data of the students' pre and post-test and the interview results, this study found that the English performance of the experimental class students who implemented the WPP-based BEW teaching mode has been remarkably improved, and their enthusiasm for BEW was gradually increased. Implications point to integration of WeChat in teacher instruction, teacher practice, ESL curriculum and assessment.

Keywords: weChat public platform (WPP), Chinese undergraduates, English as a foreign language (EFL), business English writing (BEW), mobile learning

INTRODUCTION

In the era of rapid development of the Internet, people's pace of life is likewise accelerated. In China, the popularity of the WeChat Public Platform (WPP) is undoubtedly the most responsive to people's requirements. It is a vital tool for

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information transfer and communication among individuals and a new approach to obtain knowledge (Huang, 2019; Wang et al., 2019; Fu & Wang, 2020). With the proliferation of mobile intelligent terminals and the enhancement of network infrastructure, the contents and methods of education have undergone dramatic changes, resulting in the emergence of fragmented learning. For Chinese EFL undergraduates, the learning period has thus become fragmented too (Zhou, 2020). Because of the features and functionalities of the WPP, it can be used in College English classes to assist students in learning English in their fragmented time which refers to the scattered time that can be used for learning anytime and anywhere (Wang et al., 2019; Fu & Wang, 2020). This model overcomes the time and space constraints that traditional English writing instruction imposes on the classroom, allowing for the integration of English across time, location, and learning resources (Fu & Wang, 2020).

This research addresses the existing issues in Business English Writing for Chinese students such as shortage of instructing time, students' anxiety for writing, insistence on writing results rather than writing processes, lack of communication and interaction between teachers and students, and single method of writing assessment. Additionally, this study attempts to construct a Business English Writing teaching mode based on WPP, with the goal of discovering new methods, as well as attempting to solve the issues that exist in Chinese EFL teachers' Business English writing instruction. The followings are the specific research questions to be addressed:

- 1) What is the effect of using WPP on Business English Writing Performance of Chinese EFL undergraduates?
- 2) What are Chinese EFL undergraduates' perceptions of using WPP for Business English Writing?

Literature Review

This part illustrates the relevant literature review of the Blended learning, WeChat Public Platform (WPP) development, teaching objectives and status of Business English Writing, WPP in teaching, Constructivism, Input and output theory, interaction and Mobile Learning theory.

Blended Learning

Blended learning was initially used in the training of big and medium-sized businesses in the late twentieth century to reduce the expenditure on training while increasing the likelihood of success. Following that, the accomplishments in business training drew widespread attention on education and information technology, particularly in industrialized nations such as the United States and the United Kingdom. Alrouji (2020) examined the effectiveness of blended learning in developing English written communication skills among Saudi female students and their level of satisfaction with the learning approach. According to the findings, blended learning facilitates interaction and communication as well as reduces pressure in the English writing course. Similarly, McCall (2017) explored the usefulness of blended learning in enhancing students' academic reading and writing skills. The study employed action research involving

classroom observation, survey, and interview. The participants viewed the blended learning approach as a resourceful and collaborative means to develop reading and writing skills.

In essence, previous studies found that students' writing performance improved significantly after learning through the blended learning approach (Annamalai et al., 2016; Jin et al., 2020; Lam et al., 2018; Lien, 2015; Milad, 2017; Permana & Santosa, 2018; Scott et al., 2020). Blended learning was found to improve ESL learners' writing ability, essay composition, critical arguments, linguistic competencies, grammar, spelling, topic sentence, punctuation marks, capitalization, organization, planning as well as reduce language anxiety and outline ideas (Adas & Bakir, 2013; Challob et al., 2016; Spanou & Zafiri, 2019).

Rapid Development of WeChat Public Platform (WPP)

In recent years, the expansion of the Internet in China has been extraordinarily rapid. As a result of this occurrence, a wide range of mobile devices and application software closely associated with the Internet has swiftly evolved. As a flexible learning mode, Mobile Learning is not constrained by time or space, allowing learners to learn at any available time. Learners can effortlessly access and exchange information using mobile devices such as smartphones and Tablet PC.

WeChat, a popular social software, first appeared in people's lives in 2011, and it has introduced more new and beneficial functionalities to users. WeChat Public Platform (WPP) is generated from the well-known social media network WeChat. The official WeChat account offers users a more innovative experience. By viewing WPP, users can attain messages, texts, images, videos, and audio to read directly without downloading. These materials can also be stored for an extended period.

The Teaching Objectives and Teaching Status of Business English Writing

The Ministry of Education of China issued the *National Standard for Undergraduate Teaching Quality* in January 2018. The *National Standard for Business English* proposed the idea of international compound talents training, emphasizing the cultivation of talents who can serve the economic needs of China's opening-up and the scientificity, integrity, and coherence (Shao, 2018). To the National Standard for Business English, Business English majors should be further improved, better aligned with national development objectives, and fitting the development pattern of "Domestic and Foreign Double Cycle" and China's One Belt, One Road Initiative, and its demand for Business English experts (Zhan, 2020).

The most distinguishing element of a conventional face-to-face English writing class is that the teacher's lecture is the focal point, and the teacher is the primary source of instruction. The instructional plan and the teacher's personal experience form the foundation of teaching methods and classroom control. Students in traditional writing classes just listen, record, imitate, and memorize. There is little teacher-student interaction and students' cooperation in the classroom. Students have fewer opportunities to participate in class interaction and feedback because teachers rarely

create engagement activities. It is clear that traditional face-to-face classroom does not properly promote students' enthusiasm in learning and writing initiative and that improving students' writing skill is unattainable (Khasanah & Anggoro, 2022).

The Research Status of Business English Writing

Because of its specified target readers and set purposes, Business English Writing falls within the ESP (English for Specific Purpose) umbrella. The researchers discovered little literature on Business English Writing by scholars in Web of Science, Scopus, CNKI, and no unique instructional approach is described. Wang and Fan (2020) discussed implementing and evaluating the impact of incorporating corpus consultation with Business English Writing teaching. They reported on a project to create and evaluate a Business English Writing proficiency scale to aid in the teaching, learning and assessing of Business English Writing at Chinese colleges.

Fu (2021) investigated the flipped classroom of Business English Writing from three perspectives: building the textbook system of the Business English Writing course, building the flipped classroom teaching mode of Business English Writing, and building the output mode of Business English Writing. From the perspective of genre theory, Xiong and Zhou (2020) examined the enlightenment and implementation tactics of a genre-based approach to Business English Writing. They investigated the application method or strategy using the three steps defined by Professor Martin of the University of Sydney, adopting congratulatory letters as an example. Wang and Yang, (2017b) discussed challenges in the teaching of College Business English and writing, examined the origins of these problems, and proposed some ideas for developing a new College Business English and writing teaching style.

The Utilization of WPP in Teaching

Fu and Wang (2020) investigated the use of the WPP for English language learning in higher vocational public institutions, analyzing its characteristics, teaching benefits, feasibility, challenges, and improvement methods, as well as development approaches. Namaziandost et al. (2021) examined the effectiveness of using WeChat on Iranian EFL learners' vocabulary learning during the COVID-19 pandemic. They employed an experimental pre-test and post-test design and taught them vocabulary using conventional method and through WeChat platform. After 15 sessions of instruction, students took a vocabulary post-test. The one-way ANCOVA analysis revealed that students' scores in the experimental group outperformed those in the control group.

Likewise, Pamintuan et al. (2018) explored the effect of using the WeChat platform on the vocabulary learning of students from the Teaching Chinese as a Foreign language programme. International students in an experimental group were taught through the WeChat platform for a ten-day mini programme treatment. The learners' performance before and after the treatment was measured using vocabulary pre-test and post-test. Moreover, the researchers used observation checklists to determine the change in learning Chinese vocabulary. The findings showed students' improvement in acquiring Chinese lexical knowledge in the experimental group.

Fu and Wang (2020), and Cheng and Dong (2017) employed WeChat to enhance English collaborative and autonomous learning among Chinese college students. Both studies reported that students' English scores improved. Fu and Wang (2020) utilized a quantitative and qualitative study approach with 102 Baoding University non-English major sophomores. The results of the questionnaires indicate issues with the platform's construction, English teaching model, students' English independent learning styles, and platform management, and numerous improvement measures are advised in practical teaching. Finally, an interview is conducted to demonstrate the techniques' success. The goal of the research is to improve students' capacity to learn English independently by using the WeChat public platform. Cheng and Dong (2017) used action research to investigate the feasibility of using Wechat to create a language learning community. They discovered that students' learning abilities were enhanced, their learning interests were cultivated, and a learning community was formed. Their study results led to an enhanced model of English teaching model using WeChat, and some strategies were suggested to overcome the problems. The research presented above are sample studies with one thing in common: they all used the scaffolding teaching methods to practice and test WeChat effectiveness for teaching.

As the use of a WPP in the classroom is a form of mobile learning, the researchers examined the current state of mobile learning research. Mobile learning has become a major area in research in recent years. Li (2021) examined the present situation of mobile-assisted autonomous English learning in extra-curricular time based on statistical analysis of surveys, online interviews and questionnaires. The findings suggested that English majors spend more time online with mobile devices and require assistance with online learning. Klimova and Pikhart (2021) summarized new advances in the methodology of teaching Business English as a lingua franca (BELF) in the era of mobile learning, as described by current research, and provided hands-on strategies that are useful for BELF classes and applicable in distance learning. Similarly, Bourekkache and Kazar, (2020) presented an educational approach that allows students to learn English outside of the classroom and encourages them to participate actively in their learning processes.

Application of WPP in Business English Writing Teaching

A few studies have employed the WPP to assist students in strengthening their business English writing capabilities. Wu (2016) utilized WPP to teach Business English writing. The development of the teaching scene and the creation of teaching resources were detailed and served as a guide and reference for further research in this field. The English writing course is used as a case study by Yan (2019) who conducted mobile learning research using WeChat technology. This study also looked into the strategies and approaches for implementing mobile learning through the WPP.

Input and Output Theory and Interaction Theory

Second language writing, particularly EFL writing, has progressed. In this field, the study duration is relatively brief, yet the outcomes are highly fruitful. EFL writing became an interdisciplinary research field with its own disciplinary infrastructure in the late 1980s and early 1990s. This area is maturing and expanding into a fully

interdisciplinary field, as evidenced by the publication of many periodicals, monographs, books, and even graduate courses. In second language acquisition, the input hypothesis, output hypothesis, interaction hypothesis, and attention hypothesis are all present in all studies on second language learning.

In the 1980s, input, output, and interaction theories were proposed by Krashen, Swain, and Long, respectively. The input hypothesis describes how language is learned straightforwardly. Comprehensible input is the initial requirement for second language acquisition. Comprehensible language input means that learners can understand the language materials they hear or read, and the materials' difficulty should be slightly higher than the learners' current target language level. It promotes learners to amass as much understandable material as possible during the language acquisition process, which is slightly higher than their actual language level. Krashen also believes that providing comprehensible input is the only method for students to learn the language (Lee & Krashen, 1996).

Swain's output hypothesis, on the other hand, suggests that the more languages learners create, the more languages they can learn. Learners should make forced expressions to find their own flaws in the process and constantly alter and rectify them. Swain argues that the output process might help learners compensate for their shortcomings, assimilate knowledge, and improve second language acquisition (Swain & Lapkin, 1995). Many experts have studied Swain's output theory's effectiveness and potential applications since it was first proposed in 1985. The results indicate that output theory is directly beneficial in oral English training, English vocabulary acquisition, College English basic knowledge acquirement, and grammar consolidation, among other areas. In addition, the combination of output theory with the Web boosts the utility of output theory in second language acquisition (Fadilah & Habibah, 2021; Zhang & Amponstira, 2022; Guo, 2022; Congmin, 2021; Mohammadi & Ghaemi, 2022).

Long (1981) interaction hypothesis is based on Hatch and Hawkins's (1987) research on the relevance of dialogue in grammar and Krashen's idea that input is a required condition of SLA. The interaction hypothesis states that understanding input is required for language acquisition and that interaction facilitates language acquisition. Conversation and language modification in discourse provides the input that learners require, while the negotiation process adjusts the interaction structure to help learners understand the language input. Several empirical research studies have studied the effects of various input and interaction conditions on second language output and acquisition. The three ideas support teaching methods and learners' practical abilities (Long, 1981).

According to the aforementioned literature, WPP research in teaching is a much visited subject, but studies on the application of WPP in Business English Writing class is rare, and this area has a lot of research potentials. Many problems in teachers' instruction could be efficiently solved by the powerful communication function of the WPP, and indepth research combining it with the field of education is essential. Many countries have given full attention to the changes that information technology would bring to education in recent years and particularly now as the world accelerates all types of online

instruction amidst the pandemic. WPP has had a significant impact on the growth of numerous businesses, but in the sphere of education, the resources generated and employed by the WPP are still restricted, and theoretical research that can guide the practice of instructors is also lacking. This study examines the situation of learners utilizing WPP in Business English Writing class and attempts to fill the research gap in this field (Fernandez-Malpartida, 2021).

METHOD

Research Design and Participants

The purpose of this study was to see how the WeChat Public Platform affected Chinese EFL students' Business English Writing performance and their perception on WPP. This study also looked into the strategies and approaches for implementing mobile learning through the WPP. This research used a mixed-methods approach. The pre- and post-tests were conducted to answer the first research question. Pre- and post-tests were conducted using the public version of BEC writing and its rubrics, including grammatical structure and accuracy, punctuation, vocabulary, and cohesion and coherence. All exam questions were adapted from BEC writing examinations to ensure the results' reliability and validity. The pre-test and post-test scores were analyzed using SPSS software. To supplement the quantitative results and answer the second research question, the researchers conducted post-experiment semi-structured interviews with WPP students to learn more about their perspectives. Eight students were chosen randomly from a fishbowl sampling (see Figure 1). Their names were selected from a bowl of names of those in the experimental group. The comments of the interviewees were meticulously observed, recorded, and transcribed for analysis.

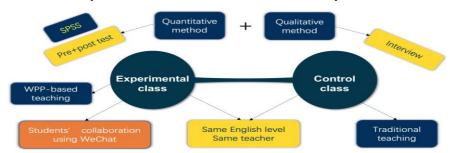


Figure 1
The research methods of the study

Two parallel groups of 40 local university students with the same language proficiency level, A1 (CEFR), participated (Ivanova & Ivanov, 2021). The Oxford Placement Test Version 1.1 was used to ensure that all participants were at the same level of language proficiency. After the course, students' writing proficiency in both groups is expected to be A2 or higher. The Business English Writing classes were taught by the same teacher in both the experimental and control groups. The WPP was used to teach Business English Writing in the experimental group, whereas the traditional teaching method of

using the Business English textbook was employed in the control group. The experiment lasted 12 weeks.

Research Instruments

The Oxford Placement Test Version 1.1 was the first instrument used to assess students' language proficiency. The examination consists of 60 questions, the majority of which are vocabulary and grammar problems asked in a communicative manner. The second research instrument was the BEC writing examination to measure students' Business English language ability. This test served as both a pre-test and a post-test.

After the treatment, the researchers conducted a semi-structured interview with experimental group participants (Table 1). Three experts in the field validated the six open-ended interview questions. The researchers wanted to see if the WPP could improve students' Business English Writing performance by interviewing them about their perception on its acceptability and adaptability.

Table 1
Semi-structured interview questions

	Some Structured Interview questions					
1	How did you find using WeChat for learning business English writing?					
2	What are your thoughts on using WeChat outside the classroom to support the instruction in class?					
3	What have been your experiences with the WeChat application in business writing?					
4	What advantages do you consider when learning Business English writing through WeChat?					
5	What are the common challenges in using WeChat in learning Business English writing?					
6	Are you willing to stick to this mode of practicing English Business writing on WeChat Platform? Why?					

Research Procedures

Through English proficiency tests, the researcher ensured that the two parallel groups of students had the same language proficiency levels. The teacher conducted a pre-test of the BEC among students in both the control and experimental groups to measure their Business English Writing proficiency. To ensure the reliability of the scoring criteria for the overall pre-test and post-test business writing performance, the researcher requested three inter-raters to rate business writing tasks. The teacher trained students in the experimental group and control group for 12 weeks. This teacher taught students in the control group using the conventional method (presentation, practice, production). The same teacher taught Business English Writing by applying WPP in the experimental group.

Pre-experiment

A survey and a pre-test were conducted on two business English classes before the experiment. The major focus of the survey is on students' basic position, their understanding of WeChat official accounts, their use of WeChat official accounts for English writing, and the present state of English writing learning and instruction. In addition, before the experiment, both the experimental and control groups were given an

English writing pre-test. The letter writing portion of unit 1, "establishing business relations", was the subject of the pre-test. The goal of the pre-test is to see if the students in the experimental and control groups have the same level of writing ability. The experimental group's mean score was 5.425, whereas the control group's was 5.100. There was no significant difference between two groups in the results of the independent sample t-test, proving that both groups of students were at the same writing level. In addition, students in the experimental group were taught how to use the official WeChat account, and a WeChat group was created for the project to ease communication between students and teachers.

While-experiment

The experimental group was taught business English writing via the official WeChat account, whereas the control group was taught traditionally. The entire experiment lasted a semester and consisted of five learning units. The teacher sent two modules of "Business English Writing Zone (BEWZ)" in the official WeChat account to the students in the experimental group before teaching each new unit, so that they could preview materials before class through "classroom review" and "after-school assignments." After a class review, the three modules of the exercise database pushed resources and delivered online basic knowledge exams.

Post-experiment

Following the experiment, the Researchers assessed the students in the experimental and control groups. The goal of the post-test is to see if incorporating WeChat into English writing instruction helps students improve their English writing skills. Excel 2013 document statistics and SPSS analysis were used to collect all data in this experiment. In addition, the researchers conducted an interview with the students in the experimental group to further assess their perception on the impact of the WeChat students' official accounts on the teaching of English writing.

After transcribing the interview data, the researchers skimmed the responses to familiarize themselves with the data. They read the transcripts twice to identify repeating words and phrases to generate initial codes. Then they identified the most repeated codes, grouped recurrent ideas, and compared codes to generate themes. The codes were revisited, and the most relevant themes were generated and refined.

FINDINGS

Comparison of Pre-test between Experimental and Control Groups

An independent sample t-test was used to see if there was a significant difference between the experimental and control groups. Table 2 and Table 3 exhibit the experimental results.

Table 2 Group statistics

	Group level	N	Mean	SD	Std Mean	
Pre-test	Experimental Group	40	5.425	1.196	.189	
score	Control Group	40	5.100	1.236	0.195	

The descriptive statistics of the experimental and control groups results are shown in Table 1. The experimental group's mean pre-test score is 5.425, while the control group' score is 5.100. The numerical value indicates that there is a tiny difference between the two groups, but Table 2 shows whether the difference achieves statistical significance.

Table 5

Inde	Independent samples test								
		Levene	Test						
		of Vari	ance t Test	of Mean	Value E	quation			
		Equation	on						
						95% Co	nfidence		
		F	Sig. t	df	Sig.	y. Mean Difference	Standard Error	Interval	of Difference
		r sig. t	Sig. t					Lower	Upper
								Limits	Limits
Pre- test	Equal Variances Assumed	.073	.788-1.195	78	.236	32500	.27195	86642	.21642
Score	Equal Variances not Assumed	t	-1.195	77.941	.236	32500	.27195	86642	.21642

Table 2 shows that the sig value of the experimental and control groups in the pre-test was 0.236, which was greater than 0.05, at a significance level of 0.05. As a result, there was no significant difference in the pre-test scores between the two groups.

Comparison of Post-test between Experimental and Control Groups

An independent sample t-test was utilized to determine whether there was a significant difference between the experimental and control groups. Tables 4 and 5 illustrate the results of the experiments.

Table 4
Group statistics

Group level	N	Mean	SD	Std Mean	
Post-test Experiment Group	40	7.650	1.189	0.188	
score Control Group	40	6.025	1.000	0.158	

Table 4 displays the descriptive data for the experimental and control groups in the post-test. The experimental group's average post-test score is 7.650, whereas the control group is 6.025. The numerical values show that there is a modest difference between the two groups.

Table 5
Independent samples test

ınaej	pendent sampi	es test								
		Levene Test of Variance Equation		t Test of Mean Value Equation						
		F	Sig.	t df	Sig.	Mean	Standard	95% Confidence Interval of Difference		
		•	516.		ui		Difference	Error	Lower Limits	Upper Limits
Post-	Equal Variances Assumed	1.048	.309	-6.617	7 78	.000	-1.62500	.24557	-2.11389	-1.13611
Score	Equal Variances not Assumed			-6.617	75.774	.000	-1.62500	.24557	-2.11412	-1.13588

Table 5 shows that the sig value for the experimental group and the control group in the post-test of performance is 0.000, less than 0.05, at a significance level of 0.05. The results demonstrate a considerable difference between the two groups, with the experimental group having a much higher average score than the control group.

Comparison of Pre-test and Post-test in Experimental Group

The paired sample t-test is used to evaluate the experimental group's pre-test and post-test results and determine whether there is a relative improvement. Tables 6 and 7 illustrate the results of the experiments.

Table 6
Paired sample statistics

		Mean	N	SD	Std Mean	
Doir 1	Pre-test Score	5.425	40	1.196	.189	
Pair 1	Post-test Score	7.650	40	1.189	0.188	

The descriptive statistics for the experimental group's pre-and post-test results are shown in Table 5. The experimental group's average pre-test and post-test scores are 5.425 and 7.650, respectively, as can be observed.

Table 7
Paired sample test

1 and	a sample test								
		Paired Dif	ference						
					95% Confidence		<u> </u>		
		Maan	CD	Ct J M	Interval of Difference Lower Upper		t	df	Sig.
		Mean	SD	Sta Mean	Lower	Upper			
					Limits	Limits			
Pair 1	Pre-test score-	-2.22500	.80024	.12653	-2.48093	-1.96907	-17.585	39	.000
	post-test score								

The numerical value indicates that there is a slight variation between the pre-and post-test scores. The sig value of the paired sample t-test of the pre-test and post-test of the experimental group is 0.000, less than 0.05, at a significance threshold of 0.05 in terms of performance. There is a considerable difference between the experimental group's pre-test and post-test outcomes.

Comparison of Pre-test and Post-test in Control Group

A paired sample t-test was used to compare the difference between the control group's pre-test and post-test findings. The results are presented in Tables 8 and 9.

Table 8 Paired sample statistics

		Mean	N	SD	Std Mean	
Doin 1	Pre-test score	5.100	40	1.236	0.195	
Pair 1	Post-test score	6.025	40	1.000	0.158	

Table 8 shows the descriptive statistics of the control group's pre-and post-test outcomes. It can be seen that the control group's average pre-test and post-test values are

5.100 and 6.025, respectively. There is a slight variation between the two, as can be observed by the numerical value, as shown in Table 8.

Table 9
Paired sample test

	*	Paired Difference						
		Mean	SD	Std Mea	95% Confidence Mean Lower Upper Limits Limits		_ _t	df Sig.
Pair 1	Pre-test score- post-test score	92500	1.11832	.17682	-1.28266	56734	-5.231	39 .000

Table 9 shows that the sig value of the paired sample t-test of the control group before and after the test was 0.000, which is less than 0.05, at a significance level of 0.05. As a result, the pre-test and post-test findings of the control group are regarded to be significantly different. The post-test score was significantly higher than that of the pre-test (0.925) but less than that of the experimental group (2.225).

Based on the comprehensive analysis of Table 1 to Table 10, there is no significant difference between the experimental and control groups in the pre-test results, which shows that the two groups' initial English level is basically equal. After the WPP experiment, there is an apparent difference between the post-test and the pre-test results in the experimental group. The average results have dramatically improved, with a specific value of 2.225. However, the control group also formed a significant difference after the post-test results relative to the pre-test results, but the increase was small, at only 0.925. From the data, it can be concluded that the WPP can improve Chinese EFL students' Business English Writing performance.

This finding broadly supports the work of other studies that reported the effectiveness of WeChat application in writing (Yan, 2019), vocabulary (Namaziandost et al., 2021; Pamintuan et al., 2018) and reading (Jin, 2017). This study supports the theory of constructivism that promotes learner-centred inquiry learning, in which students construct knowledge by identifying and solving issues. Teachers organize, guide, assist, and promote students by utilizing WeChat to completely mobilize learners' initiatives.

This study also advocates input and output interaction from the interaction theory - that input is required for language acquisition and that interaction facilitates language acquisition. In this study, students worked together to search for the materials necessary to finish writing assignments on WeChat in order to improve their input in business English writing (See Table 10). The findings of this study also support mobile learning theory in which learning takes place anywhere and at any time using mobile devices. In this study, learners and the instructor could collaborate to complete the learning process through wireless mobile learning.

Analysis of the Interview Results

The participants' responses were analyzed to identify patterns in students' perceptions toward the WPP for Business English Writing learning. Several categories emerged

from this qualitative data to shed some light on how participants perceived WeChat for learning writing. A summary of the findings on interview data is demonstrated in Table 10.

Table 10 Coding scheme

Interview Questions	Themes
Perceptions of using	User-friendly Chatting application
WeChat	Gaining more confidence in writing
Using WeChat outside the	Systematic guide in the pre-writing, while-writing and post-writing
class	More collaboration between teacher and students
Experience of WeChat in	Improvement in vocabulary and grammar
business writing	Seeing more models of business writing in WeChat
Advantages of using	Sharing of experiences and problems in writing
WeChat for writing	Enhancement of critical thinking
	Peer-assessment Peer-assessment
	Peer collaboration for searching of materials
Willingness to use WeChat	Most probably
in improving writing	

Students perceived that WeChat is a very user-friendly platform for collaborative writing, so they seem to gain more confidence in writing. Students eventually break through their inner boundaries and acquire more confidence to voice their thoughts through debating and working with their classmates to finish the tasks through WPP. The teacher systematically guided them through pre-writing, while-writing and post-writing. Majority of the students were thankful for the constant guidance of the teacher, as he provided them with extra teaching materials after class for more practice and engagement.

Most students expressed that their business vocabulary and grammar improved due to exposure to various business writing models. When asked about the differences and efficacy of the WPP versus the traditional classroom, students responded that the new teaching approach gave them more opportunities to discuss topics in groups and learn from one another.

When it came to the advantages of using WeChat, students stated that student-student and student-teacher online interaction helped them to share their experiences, collaborate with and enhanced their critical thinking in writing. The WeChat platform also allowed them to provide feedback collaboratively and assess their writing using the rubrics. Students' passion for learning Business English Writing grows over time, resulting in increased learning efficiency.

Simultaneously, teacher-student collaboration and reciprocal evaluation have empowered pupils to communicate their ideas to increase classroom efficiency confidently. Students aspire to adopt this method of writing instruction in the future as well. WPP's situational teaching method aided students in improving their abilities to write in Business English.

DISCUSSION

This study uses the WPP Public Platform to improve college students' Business English writing. The Business English Writing training mode based on WPP was built under the constructivism, mobile learning theory, input and output theory, and interaction theory. The pre-test and post-test results revealed that students in the experimental group achieved higher Business English Writing scores than students in the conventional class. Qualitative data revealed that students considered WeChat a very user-friendly platform for collaborative writing, as they seemed to gain more confidence in writing. Students also expressed that they learned about outline, organization, style and business vocabulary. They also had a chance to interact with their peers to improve their writing out of the classroom through WeChat. The WeChat-based Business English writing has kept pace with the latest information technology and encourages students to participate more actively in learning activities, increasing their interest in Business English writing. The WeChat-assisted Business English writing is also based on the theory of constructivism and collaborative learning, which resolve the problems of traditional teaching mode such as poor efficiency, limitation of time and place, time-consuming, and boring content.

In the current research, the teacher made use of the capabilities of the WeChat platform to teach business English writing. Additionally, the teacher used WeChat to expose students to a selection of keywords and phrases in order to familiarize them with the material before the actual lessons. Subsequently, students examined themselves through online vocabulary games or other forms of questions. Furthermore, the WPP teaches students how to choose words for writing. In this approach, students consistently enhance their vocabulary accumulation and grammar. The teacher published the writing model and sentence patterns linked to this lesson through the WPP before starting each class. Students also reported that they had more interactions with their peers and the teacher, which helped them share their writing experiences and collaborated to provide feedback and assess their writing using the rubrics.

In addition, the teacher reported that students in the WPP have improved in terms of layout, lexical resource, organization, coherence and grammar due to their exposure to model business letters, including lexical chunks, formulaic sequence, and structured organization. The researchers discovered that incorporating advanced technology into teaching poses a challenge for both teachers and students, necessitating a transition period. During this process, teachers must be patient in guiding students to embrace a new teaching method to distinguish between WPP and their personal life and learning.

CONCLUSION

The results of this study have some pedagogical implications for ESL and EFL teachers. Statistics show that almost 95 percent of students are using smartphones, thus curriculum developers might consider integrating the WeChat application in the curriculum as an effective platform in improving writing and vocabulary. English teachers should keep up with new technologies and applications, such as WeChat or other mobile applications, to constantly raise awareness and improve the ability to use

technology among college students. Teachers might encourage students to use WeChat by providing WeChat-based assignments and discussions. Using WeChat as a mobile-assisted language learning can assist shy students in interacting on WeChat and reducing their anxiety. Teachers can use WeChat instruction to increase students' engagement and encourage them to participate actively before and after class. Apart from creating a collaborative learning platform, WeChat instruction can provide a platform for peer assessment, ongoing assessment and timely feedback provided by both teacher and students. The teaching approach developed in this study is exclusively used in Business English Writing for Business English majors. Future researchers may consider including a more significant number of learners and diverse language levels using WeChat for teaching speaking, argumentative writing and reading. More broadly, research is also needed to examine using other social media applications to teach different English skills and subskills such as vocabulary or pronunciation using a mixed-method or qualitative design.

REFERENCES

Adas, D., & Bakir, A. (2013). Writing difficulties and new solutions: blended learning as an approach to improve writing abilities. *International Journal of Humanities and Social Science*, *3*(9), 254-266.

Alrouji, O. O. (2020). The effectiveness of blended learning in enhancing saudi students' competence in paragraph writing. *English Language Teaching*, *13*(9), 72-82.

Annamalai, N., Tan, K. E., & Abdullah, A. (2016). Teaching presence in an online collaborative learning environment via facebook. *Pertanika Journal of Social Sciences & Humanities*, 24(1), 197-212.

Bourekkache, S., & Kazar, O. (2020). Mobile and adaptive learning application for english language learning. *International Journal of Information and Communication Technology Education*, *16*(2), 36–46. https://doi.org/10.4018/IJICTE.2020040103.

Challob, A. A. I., Bakar, N. A., & Latif, H. (2016). Collaborative blended learning writing environment: *Effects on EFL* students' writing apprehension and writing performance. *English Language Teaching*, 9(6), 229-241.

Cheng, X. L., & Dong, T. T. (2017). We chat as a learning community in efl teaching: an action research study. *Journal of Asia TEFL*, *14*(3), 548-556. DOI:10.18823/asiatefl.2017.14.3.12.548

Congmin, Z. H. A. O. (2021). Fundamental theories of second language acquisition: The input hypothesis, the output hypothesis, and the interaction hypothesis. *Sino-US English Teaching*, 18(7), 192-195. doi:10.17265/1539-8072/2021.07.003

Fadilah, F., & Habibah, F. A. F. (2021). Input and output to improve english speaking skills based on youtube video lessons. *Pujangga*, 7(2), 217-228. http://journal.unas.ac.id/pujangga/article/view/1468

- Fernandez-Malpartida, W. M. (2021). Language learning strategies, english proficiency and online English instruction perception during covid-19 in Peru. *International Journal of Instruction*, *14*(4), 155-172. https://doi.org/10.29333/iji.2021.14410a
- Fu, H., & Wang, H. (2020). Developing college students' English autonomous learning through WeChat public platform. *Creative Education*, 11(06), 942–952. https://doi.org/10.4236/ce.2020.116068.
- Fu, Y. (2021). A practical research on the flipped classroom teaching of "business english writing" based on production-oriented approach. *Higher Educational Research and Evaluation*, 2, 24–25. https://doi.org/CNKI: SUN: HLLJ.0.2021-02-011
- Guo, X. Y. (2022). A study on cross-media teaching model for college English classroom based on output-driven hypothetical neural network, *Computational Intelligence and Neuroscience*, vol. 2022. https://doi.org/10.1155/2022/5283439
- Hatch, E., & Hawkins, B. (1987). Second-language acquisition: An experiential. *Advances in Applied Psycholinguistics: Volume 2, Reading, Writing, and Language Learning*, 2, 241.
- Huang, X. (2019). WeChat-based teaching for an immersion cultural exchange program a case study in cfl. *Smart Learning Environments*, 6(1). https://doi.org/10.1186/s40561-019-0087-0.
- Ivanova, R., & Ivanov, A. (2021). Online reading skills as an object of testing in international English exams (ielts, toefl, cae). *International Journal of Instruction*, 14(4), 713-732. https://doi.org/10.29333/iji.2021.14441a
- Jin, N. (2017). Mobile-assisted language learning: Using WeChat in an English reading class. *In International Symposium on Emerging Technologies for Education*, 500–506. https://doi.org/10.1007/978-3-319-71084-6_59.
- Jin, T., Su, Y., & Lei, J. (2020). Exploring the blended learning design for argumentative writing. *Language Learning & Technology*, 24(2), 23-34.
- Keshta, A. S., & Harb, I. I. (2013). The effectiveness of a blended learning program on developing Palestinian tenth graders' English writing skills. *Education Journal*, 2(6), 208-221.
- Khasanah, U., & Anggoro, K. J. (2022). Accessible flipped classroom model for pronunciation instruction: its effectiveness and students' perception. *International Journal of Instruction*, *15*(1), 185-196. https://doi.org/10.29333/iji.2022.15111a
- Klimova, B., & Pikhart, M. (2021). New advances in second language acquisition methodology in higher education. *Education Sciences*, 11(3). https://doi.org/10.3390/educsci11030128.
- Lam, Y. W., Hew, K. F., & Chiu, K. F. (2018). Improving argumentative writing: Effects of a blended learning approach and gamification. *Language learning & technology*, 22(1), 97-118.

Lee, S. Y., & Krashen, S. (1996). Free voluntary reading and writing competence in Taiwanese high school students. *Perceptual and Motor Skills*, 83(2), 687-690.

- Li, J. (2021). Mobile-assisted autonomous English learning in college students' extracurriculum time: A casestudy in China. *Technium Social Sciences Journal*, 19(1), 129– 143.
- Lien, C. T. X. (2015). Enhancing writing skills for second-year English majors through a Moodle-based blended writing course: An action research at Hue University of foreign languages. *In 6th TESOL Conference, Sarawak, Malaysia*.
- Long, M. H. (1980). *Input, interaction, and second language acquisition*. University of California, Los Angeles.
- McCall, F. I. N. L. A. Y. (2017). Using microblogs on facebook to develop students' academic reading and writing skills. *University of Sydney Papers in TESOL*, 12(1), 123-162.
- Milad, M. (2017). Blended learning approach: integrating reading and writing research skills to improve academic writing. *Arab Journal of Applied Linguistics*, *3*(3), 23-55.
- Mohammadi, N., & Ghaemi, F. (2022). The impact of noticing and output tasks on the mastery of English phrasal verbs among iranian pre-intermediate efl learners. *Journal of Applied Linguistics and Language Research*, 9(1), 43-63. http://www.jallr.com/~jallrir/index.php/JALLR/article/view/1224
- Namaziandost, E., Hashemifardnia, A., Bilyalova, A. A., Fuster-Guillén, D., Palacios Garay, J. P., Diep, N., ... & Rivera-Lozada, O. (2021). The effect of WeChat-based online instruction on EFL learners' vocabulary knowledge. *Education Research International*, 2021. 8825450. https://doi.org/10.1155/2021/8825450
- Pamintuan, C. F., Mallari, D. G., Garcia, N. T., Galang, J. P., & Buduan, R. M. B. (2018). The use of wechat application on cfl learners' vocabulary acquisition. *TESOL International Journal*, 13(4), 26-38. https://files.eric.ed.gov/fulltext/EJ1244122.pdf
- Pascoe, M., Monroe, F., & Macfarlane, H. (2018). Taking constructivism one step further: post hoc analysis of a student-created wiki. *JMIR medical education*, *4*(1), e16. https://doi.org/10.2196/mededu.9197.
- Permana, I. G. Y., & Santosa, M. H. (2018). The effect of blended learning with Schoology on students' writing. *In iTELL Conference 2018*.
- Scott, D., Ulmer-Krol, S., & Ribeiro, J. (2020). Enhancing the academic writing abilities of first-year bachelor of education students in a blended learning environment. *International Journal of Teaching and Learning in Higher Education*, 32(1), 87-98.
- Shao, S. S. (2018). Run business english major well and serve the "the belt and road initiatives" construction -- interview with professor Lifei Wang, head of business english teaching cooperation group of national colleges and universities. *Foreign Language Education*, 39(6), 58–77.

- Spanou, S., & Zafiri, M. N. (2019). Teaching reading and writing skills to young learners in english as a foreign language using blogs: a case study. *Journal of Language and Cultural Education*, 7(2), 1-20.
- Swain, M., & Lapkin, S. (1995). Problems in output and the cognitive processes they generate: a step towards second language learning. *Applied Linguistics*, *16*, 371–391.
- Thongchalerm, S., & Jarunthawatchai, W. (2020). The impact of genre-based instruction on EFL learners' writing development. *International Journal of Instruction*, *13*(1), 1-16. https://doi.org/10.29333/iji.2020.1311a
- Wang, L., & Fan, J. (2020). Assessing business English writing: the development and validation of a proficiency scale. *Assessing Writing*, 46(May), 100490. https://doi.org/10.1016/j.asw.2020.100490.
- Wang, X., Alauddin, M., & Zhang, Q. (2019). An investigation of inbound international students' WeChat usage and educational value in China. *Journal of Information Technology Management*, 30(2), 1–18. http://proxy.lib.sfu.ca/login?url=https://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=138161847&site=ehost-live.
- Wang, Y. W., & Yang, P. (2017a). Interpretation and enlightenment of "NMC Horizon Report: 2017 Higher Education Edition": emerging technology reshaping higher education. *China Medical Education Technology*, 31(002), 117–123.
- Wu, Q. E. (2016). Research on WeChat platform to English writing. *Computer Knowledge and Technology*, 29(165), 166+177. https://doi.org/10.14004/j.cnki.ckt.2016.3804.
- Xiong, Y. S., & Zhou, X. (2020). On teaching business English writing from the perspective of genre theory. *Journal of Jianghan Petroleum University of Staff and Workers*, 5, 70–72. https://doi.org/CNKI: SUN: JSZD.0.2020-05-023.
- Yan, L. (2019). A study on WeChat-based collaborative learning in college English writing. *English Language Teaching*, 12(6), 1. https://doi.org/10.5539/elt.v12n6p1.
- Zhan, J. (2020). Framework and constituent elements of Business English. *Contemporary Foreign Language Studies*, 6(7), 18–55. https://doi.org/CNKI: SUN: KJYY.0.2020-06-003
- Zhang, X., & Amponstira, F. (2022). Implementation of web-based college english teaching management mode in mianyang city, sichuan province, China. *The Journal of Pacific Institute of Management Science (Humanities and Social Science)*, 8(1), 152-165. https://so05.tci-thaijo.org/index.php/pacific/article/view/259243
- Zhou, S. (2020). An empirical study of college students' fragmented English learning. *Academic Journal of Humanities & Social Sciences*, 3(3). doi: 10.25236/AJHSS.2020.030312.