Integrating WeChat-based Mobile-Assisted Language Learning into College English Teaching

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Abstract

WeChat, one of the most popular social networking tools in China, has attracted attention of educators to its pedagogical value such as its support for interactivity and real-time communications. Based on the literature review of mobile-assisted language learning (MALL) and WeChat, the paper aims to analyse the affordances of WeChat application in MALL, explore how to integrate WeChat-based Mobile-assisted Language Learning (MALL) into College English Curriculum so as to promote students' engagement in learning and to improve their learning outcomes.

1. Introduction

With the advancement of mobile technologies and widespread ownership of Internet-accessing mobile devices, the use of mobile technologies in education has been fast growing. Flexible learning through mobile devices such as smartphones, tablets, and iPods, has been the trend of digital learning. Mobile learning is about using all type of mobile devices to carry out learning activities at any time and any place [1]. The integration of the mobile technologies and learning activities arouse students' interests during the learning process as it provides easier ways to learn, such as accessing learning materials, doing online quizzes, participating in discussions and other online activities [2]. With the development of technology, language learning has also evolved from Computer-assisted language learning (CALL) to MALL (Mobile-Assisted Language Learning). MALL has attracted the attention of an increasing number of researchers in the past two decades [3]. Most of these studies found that mobile technologies can enhance learners' second and foreign language acquisition [4].

Accordingly, MALL has emerged as a potential tool in teaching English as a foreign language (EFL) [5].

College English, an integral part of higher education, is a required general education course to teach undergraduates English as a foreign language (EFL) in universities of China. According to the College English Curriculum Requirements published in 2007, the extensive use of advanced information technology should be encouraged, computer- and Web-based courses should be developed, and students should be provided with favourable environment and facilities for language learning. The 2007 policy further advocates that new pedagogical models should be built for the use of technology, so that English language teaching and learning can be free from the constraints of time or place and geared towards students' individualized and autonomous learning. The new pedagogical model should be built on the principles of practicality, taking students' knowledge and interests into consideration, and thus placing students in the centre of learning.

WeChat (pinyin: Wēixìn; literally: "micro-message") , as a multi-purpose messaging and social media app used mainly in China , is a powerful app that incorporates the features of Facebook, Instagram, Skype, and Twitter. WeChat was first released in 2011. By 2018 it was one of

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the world's largest standalone mobile apps with over 1 billion monthly active users and 902 million daily active users. WeChat's mobile app works on all types of smart phones, tablets, laptops, and even desktop computers. It has been called China's "app for everything" and a "super app" because of its wide range of functions and platforms. WeChat has become an indispensable part of Chinese college students in campus life with growing mobile application in China [6].

In order to better engage students, many instructors tapped into the power of WeChat as a tool that can support mobile learning. This is accomplished by establishing Groups on WeChat and by encouraging students to actively participate in discussions and course-related activities. Researchers (e.g., [7]) discussed design principles of WeChat-supported mobile learning from aspects of orientation, function, content, interaction, learning style, and web service. A growing number of language educators and researchers explore how to apply the functions of WeChat as a popular social networking app to support mobile language learning of college students and teaching in college classroom context [8][9][10][11][12]. Even though some researches point out the perfect fit between the media richness of WeChat and language learning, there is a lack of systematic study of pedagogical functions of WeChat in mobile language learning. This paper aims to fill in this gap and explore how to integrate WeChat-supported mobile language leaning into College English curriculum so as to generate pedagogical principles for an innovative teaching in College English. The overarching goal is to support student-centred, personalized, and autonomous learning.

2. Literature Review

2.1 Mobile-assisted Language Learning

As a successor of computer-assisted language learning (CALL), mobile-assisted language learning (MALL) is a subset of the growing field of mobile learning. Mobile learning refers to "learning mediated via handheld devices and potentially available anytime, anywhere. Such learning may be formal or informal [13, P.273]. MALL has been defined as the use of "mobile technologies in language, especially in situations where device portability offers specific advantages" [14, P.3701]. The distinctive characteristics of MALL bring about specific affordances, benefits and challenges that are quite different from those of CALL and the traditional face-to-face teaching and learning 13]. The key shifts that influence the process of language learning and teaching encompass aspects of location, context, time, tools, learning/teaching approaches and modes, and social interaction [15].

How to couple different mobile technologies with the appropriate pedagogies has been a long-lasting research topic. In addition, the range of approaches and learning activities using MALL is developing quickly to one that is "beginning to support multimedia, collaborative listening and speaking activities and to allow learners to co-construct knowledge to solve problems and to fill information gaps" [13, P.283].

Palalas [16] concludes that the dynamic process of situated learning in MALL context has to be supported by access to peers and facilitators, information and linguistic resources, as well as tools for capturing and distributing linguistic information. Moreover, out-of-class language learning has to be guided by a relevant pedagogical task that encompasses language-in-action activities and motivates students to work and communicate with others.

Viberg and Grönlund [4] conducted a meta-study to provide a systematic review of MALL research within the specific area of second language acquisition during the period of 2007 – 2012, in terms of research approaches, methods, theories, and models and impact on students' linguistic knowledge and skills. Their review confirms the benefits of MALL on language learning, such as integrating the mobile technology in both formal and informal contexts. They point out that the field of MALL is still in its developmental phase and begs for more empirical evidence and guidance, so as to build theoretical models specific to its usage. They call for more experimental studies testing how mobile technology can assist and improve learners' writing process, reading comprehension, pronunciation performance, and second language grammar acquisition [4].

Dashtestani [17] explored the attitudes of Iranian English as a foreign language (EFL) teachers toward the implementation of mobile-assisted language learning (MALL). This study suggests that further research is needed to evaluate the suitability of the implementation of MALL from the perspectives of language learners. After a literature review of over 345 experimental MALL implementations between 1994 and 2012, Burston [18] found that few of the published principles have been integrated into English curriculum in any substantial way and even few have been pedagogically innovative. Moreover, he concludes that the narrow focus upon stand-alone MALL needs to give way to seamless approach in which mobile devices and computers are used together to do what each does best in the fulfilment of task-based activities.

Botero and Questier [19] investigated behaviours and perceptions of college students in mobile assisted language learning context by analysing a self-directed learning experience by means of a language app (Duolingo) outside formal educational contexts. Results of the study show that for substantial MALL usage relies on a combination of incentives, scaffolding, and curricular integration. Another study [20] examined learners' and teachers' perceptions towards the proposed implementations of a MALL program in Saudi university and explored the roles of mobile technologies in assisting learning and teaching English as a second language. The results further highlight that MALL could facilitate

communication, engage students in learning, and grow their learning autonomy.

Although a behaviourist, teacher-centred transmission model of instruction might prevail in a great majority of MALL implementations, Mobile Assisted Language Learning is "equally capable of supporting more innovative constructivist, collaborative, learner-centred instruction" [21, P.357]. Therefore, when our research team designs the implementation of mobile–assisted language learning with WeChat technology, the following factors were taken into consideration: 1) seamless approach in which mobile devices and classroom teaching are used together to teach a foreign language, 2) combination of incentives, scaffolding, and curricular integration, 3) out-of-class language learning has to be guided by a relevant pedagogical task that encompasses language-in-action activities and motivates students to work and communicate with others.

2.2 WeChat and Language Learning

2.2.1 Basic Functions of WeChat

WeChat provides text messaging, hold-to-talk voice messaging, broadcast (one-to-many) messaging, sharing of photographs and videos, location sharing, and group chat up to 500 people. It can also facilitate exchange of contacts with people nearby via Bluetooth, as well as providing various features for contacting people who are physically nearby. WeChat can easily work with other social networking services such as those run by QQ, another popular social media in China. WeChat is based on user's QQ friends list and their cell phone contacts lists, which are convenient and effective ways of building circles of friends. Thus, users can quickly build a social network circle in a short period of time.

2.2.2 Public Platform of WeChat

In addition, WeChat has built an ecosystem based on its Public Accounts feature. Apart from communicating with subscribers and sending them multi-media messages, Public Account owners can develop sophisticated features via WeChat's application program interface (API)s. In computer programming, an application programming interface (API) is a set of routines, protocols, and tools for building software applications. On WeChat's Official Account Platform, a subscription account is allowed to send 1 broadcast message per day, while official accounts using developer mode can broadcast more flexibly using this API.

2.2.3 Open Platform of WeChat

WeChat's open Platform enables the synchronization between WeChat and websites. Contents on WeChat could be shared from the website or contents on website could be shared from WeChat. Furthermore, Micro-community that can be used on public account allows subscribers to interact with other subscribers and share content with their own social network circles.

2.2.4 WeChat and Language Learning

Studies have been conducted to assess the effectiveness of WeChat in language learning. Tian and Wei [22] utilized the hybrid cloud model of mobile learning environment to design and implement Arabic course learning based WeChat public platform and to analyse the results of hybrid cloud model of mobile learning. Wang and Dai [23] studied how to integrate the interactive functions of WeChat to construct a WeChat-Based interactive mobile translation teaching model under the guidance of the constructivist theory. Jiang [24] investigated the effects of WeChat public platform on English reading teaching. The WeChat platform pushes reading materials to English majors and intended to help them use their fragmented time to study. The study discovered the effectiveness of this modality of learning including students' improved reading abilities. The study also suggests that reading materials should be designed in accordance with students' needs and students need more guidance with reading techniques and methods. Another empirical study [25] revealed that WeChat-supported mobile learning can improve college students' self-efficacy in English Learning.

A 2016 study [26] evaluated the affordances of WeChat for the development of a community of inquiry (CoI) in semi-synchronous language exchange. This research investigated all three presences in the CoI framework, including teaching, social, and cognitive presence, as they emerge in the language exchange between students of Mandarin Chinese and students of English. While this research confirms the user-friendliness and highlights the fit between the media richness of WeChat and language learning, it also recommends that other pedagogically functions of WeChat be further explored. Accordingly, Li [27] investigated what language development affordances WeChat can provide using qualitative research methods. His study identified four affordances and also showed that each affordance can manifest differently with each language learner, due to unique communication norms on WeChat, each language learner's Chinese language proficiency, and their personal preference in WeChat communication.

However, most of previous studies focus on using the basic functions of WeChat to explore interactive and collaborative language learning. There is a dearth of study exploring the implementations of Mobile assisted language learning with the public open platform of WeChat.

3. Affordances of WeChat application for Mobile-assisted Language Learning

In this study, we propose an innovative learning framework for using WeChat in teaching. The afore-mentioned features and functions of WeChat can provide affordances of creating mobile learning environment for College English learning and teaching. By analysing the features and functions of WeChat, we examine WeChat's affordances for mobile assisted Language learning (MALL), as shown in Figure 1. First, the basic functions of WeChat allow interactive communication by using Text messaging or Voice messaging or Group chat, which can provide an environment for collaborative learning between groups and interactive communication among students and teachers. Second, the Public Platform of WeChat allows subscription account owners to push content to every subscriber, which can be used to deliver course content to students' mobile phones. In addition, automatic reply function on Public Platform allows subscribers to retrieve course content. Third, WeChat's Open Platform enables the synchronization between WeChat and websites. Contents on WeChat could be shared from the website or contents on website could be shared from WeChat, which allows teachers to easily share learning resources with students (also as displayed in Fig. 1).

4 The Structure of an Innovative Teaching Model with Mobile Learning

According to China's College English Curriculum Requirements published in 2007, in view of the marked increase in student enrolment and the relatively limited resources, colleges and universities should reform the existing unitary teacher-centred pattern of language teaching. This model should incorporate into it the strengths of the current model and give play to the advantages of traditional classroom teaching while fully employing modern information technology. A new teaching model based on modern information technology including computer-based and mobile phone-based technology is needed in order to achieve student-centred autonomous learning. The structure of an innovative teaching model of College English is shown in Figure 2-WeChat Affordance for Mobile –assisted Language Learning.

The goal of this College English course is to develop students' abilities to use English in listening, speaking, writing, and translating. In this new teaching model, as the learning facilitator, before class teachers can ask students to go study in the self-learning centre of the university. Afterwards, course content can be delivered to students' mobile phones for them to review in their free time. The content is micro enough to help them make better use of their fragmented time. In class, teacher can give feedback to students based on their performance in both the computer labs and on their mobile phones.

Moreover, WeChat's Open platform can be designed to help to track down, record and manage learning and tutoring as well as the monitoring and management of

learning and tutoring. Micro-community of WeChat can be developed to achieve interactive communication between students and teachers or among students. The new teaching model with WeChat-based mobile learning can attain to a high level of interactivity, the use of multimedia, and operability.

5. Implementation of a WeChat-based Public Platform

WeChat-based College English Learning Platform (CELP) was developed by Wuhan Polytechnic University and two other companies (Wuhan Teachermate, Pigai Inc.) for college students. This Platform was designed to provide a mobile learning environment for college students who take College English Courses.

5.1 Architecture of this Learning Platform

Figure 1 shows the architecture of this WeChat Learning Platform, which has three layers: 1) features and functions of WeChat, 2) WeChat's possibilities to support learning through groups, interaction via text or audio, auto-reply, channel subscription, and content-sharing; and 3) its application in learning, including collaborative learning, interactive learning, content retrieval, content delivery, and resources sharing.

Figure 2 displays the structure of a new teaching model that is built on WeChat, from teachers in one end and student at the end. Between them, there are three levels of interactions and pedagogies to support these interactions. For instance, self-learning or tutoring will occur either through the Internet or through a mobile app like WeChat; and regular teaching will be conducted in classrooms. Ultimately teacher and students aim to accomplish the same learning goals: to improve students' competencies in listening, speaking, reading, writing, and translating.

Figures 3-5 are screen captures of the College English Learning Platforms and College Writing Courses developed by English teachers in Wuhan Polytechnic University.

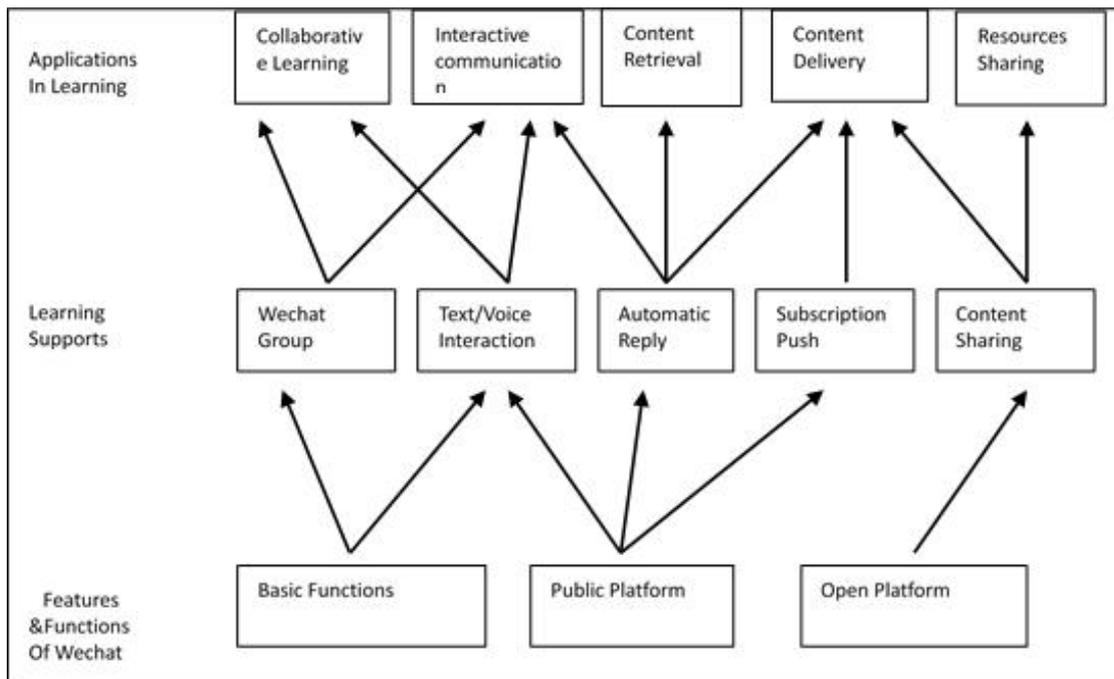**Fig 3.** The Public Accounts a User Subscribes on WeChat
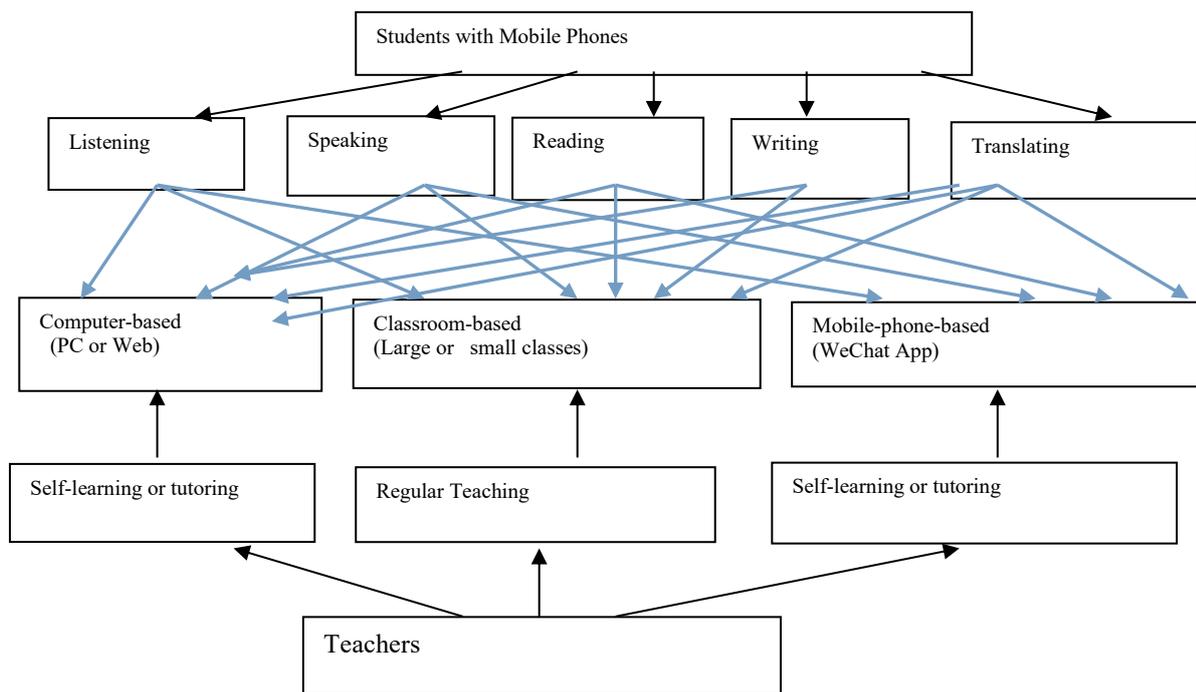
Fig1. WeChat's Affordance for MALL

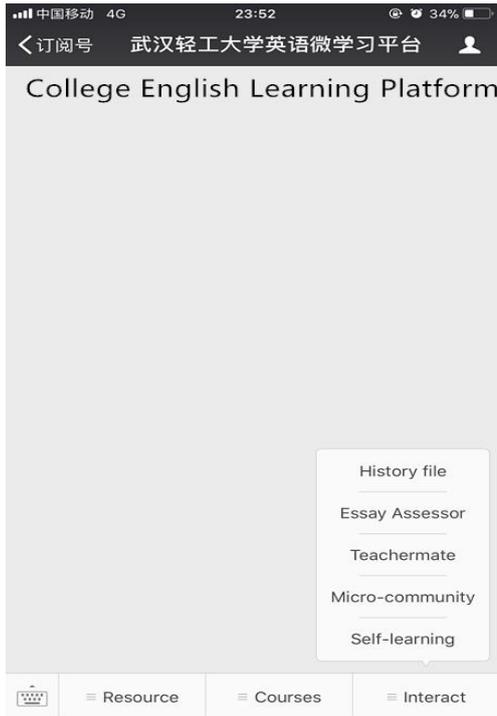Fig 2. Structure of the New Teaching Model
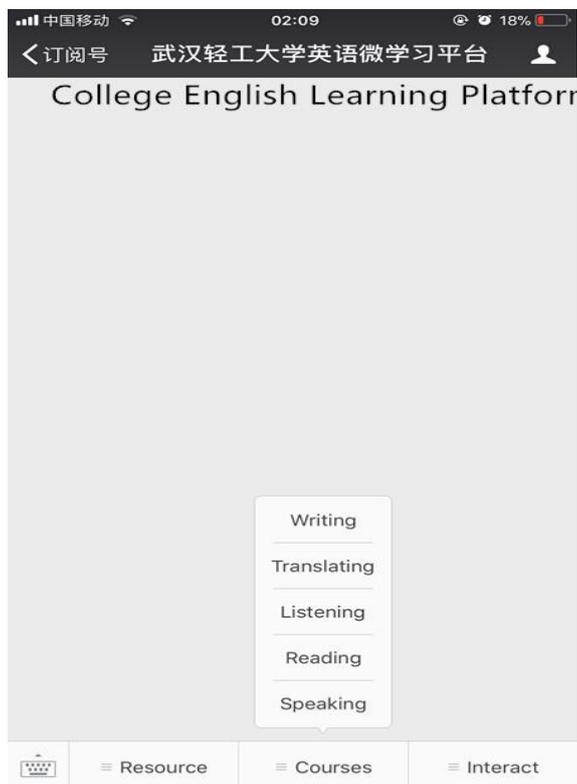
Fig 4. College English Learning Platform

Fig 5. Course Menu Navigation on College English Learning Platform

5.2 Functions of the College English Learning Platform (CELP)

This College English Learning Platform (CELP) has the following advantages over a traditional or responsive website:

- Accessibility: once users subscribe to its public channel on WeChat, they can easily access it from their phone. The channel will automatically "push" updates to users.
- Interactivity: The Teachermate navigation menu on this English Learning Platform was developed as Classroom Response Systems (CRS) to facilitate teaching activities in classroom. As shown in Figure 7, Teachermate can provide the students with such functions as joining in class, signing in, answering questions, discussing in classroom, and sharing learning content from the teachers. This classroom response technology was web-based and the students use their mobile phones to answer multiple-choice and open-ended questions in textual, graphic, numerical, or algebraic format. With this technology, the instructor can view responses in real time and can also share this visual with students using a projector. Teachermate can be used to collect the attendance and summative assessment data, which can increase student engagement and classroom interaction.

Fig 6. Teachermate Navigation Menu on the College English Learning Platform

- Automatic Essay Scoring: Students can use Essay Assessor on the menu of CELP to get scores and feedback to their essay as shown in Figure 7. Through the menu of CELP, the Pigai.org tool can provide automatic essay scoring service using big data technology. Online automatic essay scoring service has been widely used by both English learners and educators in China. It is also widely

recognized as a professional tool to improve learners' writing proficiency and their autonomy. Especially, due to its intelligent cloud computing ability based on accumulated huge corpus, the Pigai tool is able to point out learners' Chinglish and meanwhile recommend the correct expression. As is known, writings of TOEFL, GRE and other similar exams are revised by a common system called E-rater, which has already gained international recognition. Comparing with E-rater, Pigai.org has its own striking character and can be used to grade all kinds of exams for its unique 192-dimension scoring technology. Until now, Pigai Inc. has served more than 9.5 million users across 4,000 schools and universities in China. It has assessed more than 100 million essays since May 2015. This tool is used as part of the teaching innovation studied here and served the students well.
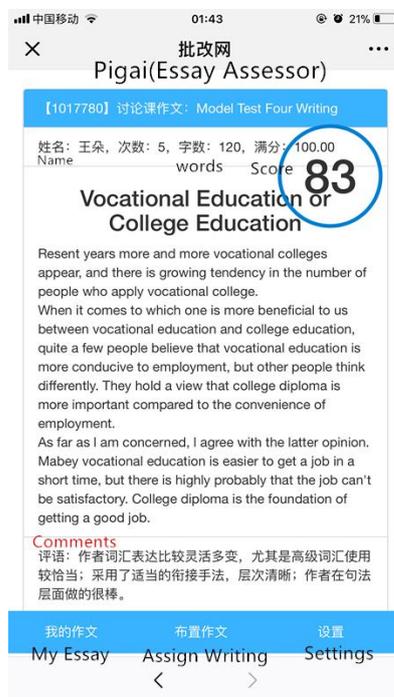

Fig 7. Essay Assessor Menu on College English Learning Platform

6. Pilot Implementation of this WeChat Platform

Based on the proposed innovative model (as shown in Figures 1-2), a pilot study was conducted to examine the effectiveness of WeChat-based College English Learning Platform when participants are attending College English Courses as second language learners. In order to meet the needs and preferences of EFL college students in China, this study also aims to investigate the usability of mobile phones for mobile assisted language learning by college EFL learners and identify the preferences of College EFL learners for MALL Platforms. The following research questions are formulated to achieve the aims and objectives of this exploratory study:

(1) What are the perceptions of Chinese EFL college students on their use of mobile phones for learning English?
(2) What are the perceptions of Chinese EFL college students on WeChat-based College English Learning Platform（CELP）?
(3) What are the needs and preferences of Chinese EFL college students on Mobile Assisted Language Learning Platform?

6.1 Subjects

Participants of study were recruited from sophomores of different majors and schools in Wuhan Polytechnic University. They were attending College English courses and was preparing to take College English Test Band 4 (also known CET- 4) at the end of that semester. The purpose of the College English Test (CET) is to examine English proficiency of undergraduate students in China and ensure that Chinese undergraduates reach the required English levels specified in the National College English Teaching Syllabus (NCETS).

In accordance with the courses on the syllabus, CET consists of three tests: Band 4 (CET-4), Band 6 (CET-6), and the CET-Spoken English Test (CET-SET). The test is administered by the National College English Testing Committee on behalf of the Higher Education Department, Ministry of Education, and the People's Republic of China (the P. R. China). The CET-4 and the CET-6 are held twice a year at the end of each semester. Each test takes 125 minutes to complete. Four sub-scores are reported in the CET report cards in addition to the total score gained out of 710 points: listening comprehension (249 points, 35%), reading comprehension (249 points, 35%), cloze or error correction (70 points, 10%), and writing and translation (142 points, 20%).

110 subjects voluntarily participated in this WeChat Project to experience the College English Learning Platform. There are 68 (62%) female students and 42 (38%）male students. 63(57%) respondents are from liberal art majors and 48(43%) respondent are from Science and Engineering (STEM) majors. Student participants were all Chinese native speakers with ages ranging from 20 to 22 and with 9-11 years of English learning experience.

6.2 Methods

In this Bring Your Own Devices (BYOD) study, 110 students who are already WeChat users followed this learning project's WeChat Public Account. They were required to register with their real names and student IDs to use such functions as Teachermate and Essay Assessor.

They were invited to have access to resources on CEL Platform and join WeChat group to obtain instructions on how to use CEL Platform and collect feedbacks when they use CEL Platform. The researchers designed College English Writing Course about CET-4 according to the types of Writing in CET-4 and delivered them to respondents via CEL Platform every week for one semester (as shown in Figure 6). When students took the CET-4 at the end of the semester, a survey was conducted to collect their perceived feedbacks of CEL Platform in the form of an end-of-semester questionnaire .

The first section of the questionnaires explores the perceptions of Chinese EFL college students on their use of mobile phones for learning English. The questions are based on a four-point Likert scale format from *strongly disagree* to *strongly agree*. The second section asks the students' perceptions of the WeChat-based College English Learning Platform （CELP ） using an identical Likert scale. The third section intends to discover students' needs and preferences for Mobile Assisted Language Learning with mobile phones.

In particular, section 3 includes a four-point Likert scale and open-ended questions, which ask the students to describe "*What kind of Mobile Assisted Language Learning Platform do you prefer to learn English?*" Answers to these questions complement answers to sections 1-2, which were designed to quantify participants' preferences. The third section of this questionnaire was also released online to EFL college students who were registered with the self-learning center of Wuhan Polytechnic University. Students were invited to participate voluntarily in the online survey during a 4-week period. All data collected are analyzed with descriptive statistics and the results are shown in following sections of this paper.

6.3 Findings

Results from the survey were classified into three thematic areas regarding:
1) participants' current mobile phone usage for learning English,
2) their evaluation of the WeChat-based College English Learning Platform (CELP), and
3) their desired Mobile Assisted Language Learning Platform.
This classification corresponds to the aforementioned three research questions. Following is a detailed breakdown of the survey results, including 7 tables and 2 figures.

Table 1 Frequencies of using Mobile Phones to Learn English

Item	Responses Number	Percentage
A.Every day	15	13.60%
B.frequently	30	27.30%
C.Occasionally	59	53.60%
D.Never	6	5.50%
Respondents Number	110	1

As shown in Table 1, when asked about their frequencies of using mobile phones to learn English, 13.6% of the respondents reported that they use mobile phones to learn English every day, while 27.3% of the respondents reported that they frequently use mobile phones to learn English. By contrast, 53.6% of the respondents reported that they occasionally use mobile phones to learn English, while only 5.5% of the respondents never use mobile phones to learn English.

Table 2 Frequencies of studying content on WeChat-based College English Learning Platform (CELP)

Item	Response Number	Percentage
A.Strongly agree	19	17.30%
B.Agree	42	38.10%
C.Disagree	28	25.50%
D. Strongly Disagree	21	19.10%
Respondents Number	110	100%

As Table 2 displays, when asked about their frequencies in studying content related to CET-4 writing task, 55.4% of the respondents (17.3% strongly agree with 38.1 % agree) reported that they frequently (5-6 times a week) read the learning material posted on the CELP Platform, while 44.6% of the respondent (19.1% strongly disagree with 25.5% disagree) reported that they access this platform less frequently (2-3 times per week).

The survey also asked participants how they perceive this English learning platform and its efficiency in supplementing their English learning outside of classrooms. As displayed in Table 3, 83.64% respondents (20% strongly agree with 63.64% agree) felt that CELP was an effective supplementary tool to their formal learning in classroom context. By contrast, only 16.36% (14.55% disagree with 1.81% strongly disagree) respondents reported opposite opinions.

Table 3 Perceptions on the role of CEL Platform (CELP) in educational context

Item	Response Number	Percentage
A.Strongly Agree	22	20%
B.Agree	70	63.64%
C.Disagree	16	14.55%
D.Strongly Disagree	2	1.81%
Respondents Number	110	100%

Table 4   Perception on the effectiveness of CEL Platform in improving writing proficiency

Item	Responses Number	Percentage
A.It is very effective	30	27.27%
B.It is effective ,but not obvious	70	63.64%
C. It is not effective	10	9.09%
Respondent Number	110	1

As indicated in Table 4, when asked how they perceive the effectiveness of this English Platform in improving their writing proficiency, 27.27% of the respondents reported that this type of learning has improved their writing proficiency. By contrast, 63.64% of the respondents indicate the new learning is helpful but might not have led to obvious improvement of their competencies. Only 9.09% of the respondents felt that the Platform and associated learning activities did not help them much at all.
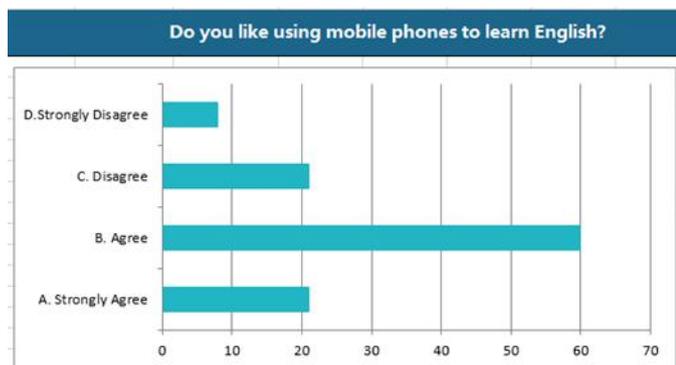

Fig. 8   Preference for using mobile phone to learn English

As shown in Figure 8 and Table 5, when asked whether they prefer to use mobile phones to learn English, 73.64% of the respondents (19.1%   strongly agree with 54.5% agree)   indicate that this is their preferred way of learning. By contrast, 26.4% of the respondents (7.3% strongly disagree with 19.1% disagree) indicated the opposite.

Table 5. Preference for using phone to learn English

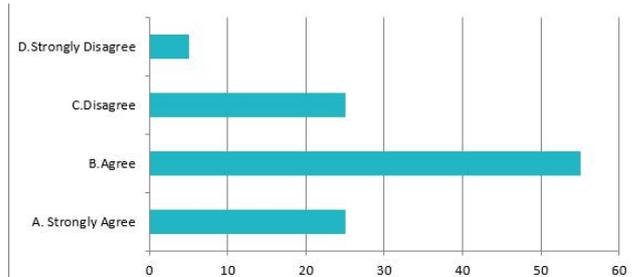|	Responses numbers	Percentage
A. Strongly Agree	21	19.10%
B. Agree	60	54.50%
C. Disagree	21	19.10%
D.Strongly Disagree	8	7.30%
Number of Participants	110	100%

Fig. 9 Perceptions of Mobile Phone Use for English Learning on MALL Platform

Table 6 Perceptions of Mobile Phone Use for English Learning on Mobile Assisted Learning Platform

Item	Response Number	Percentage
A. Strongly Agree	25	22.73%
B.Agree	55	50%
C.Disagree	25	22.73%
D.Strongly Disagree	5	4.54%
Respondents Number	110	100%

The survey asked participants if they enjoyed learning English on this Mobile Assisted Language Learning (MALL) Platform with their mobile phones. As indicated in Fig. 9 and Table 6, 73.73% of the respondent (22.73% strongly agree with 50% agree) gave favourable ratings while 27.27% of the respondent (22.73% strongly disagree with 4.54% disagree) gave unfavourable ratings.

In order to better understand students' perceptions, an open-ended question was designed to gauge their needs and preferences for an ideal MALL platform. The respondents' responses can be categorized into the following themes: learning content access, interactive functions, and the design of the platform itself in terms of user-friendliness and flexibility. Features that students expect from a MALL platform is listed in Table 7, which includes reading, listening, speaking, and writing.

These responses show that college students hope that a MALL platform can provide learning resources aligning with their interests, such as the latest news, classic English novels, English songs and films, test-oriented learning materials, and slides teachers use in their classroom. Some of respondents propose that the learning materials should be updated and presented in multimedia

format (audios and short videos), which will keep their attention.

Table 7 Open-ended Reponses about Desired Content on MALL Platform

Reading	read the latest news,and Classic English novels and magazines
	read the English material about the topic students are interested in
	read the successful strategies in improving English
	read the explanations about Vocabulary , grammar ,listening ,writing,s
	read the English learning slides in classroom context
	read the Test-oriented English learning materials
Listening	listen to musics and songs
	listen to English materials related to such English Test as CET-4/6, T
	listen to listening exercises
	listen to daily dialogues of English speakers
	watch films and video
Speaking	practice oral English with English speaker
	learn to talk in daily life
	learn to use English slang
Writing	Writing template
	writing Patterns

As mentioned above, in order to further identify the needs and preferences of Chinese EFL students for MALL Platforms, this open-ended question was delivered online through the campus intranet to all students who studied English in computer-assisted classrooms of the University's Self-learning Centre. These students are Chinese freshmen and sophomores aged 18 to 21 from all the school and department of the university but they are not required to participate in the WeChat learning initiative. Enough though participation is voluntary, 548 respondents filled in the survey. Following we compare their replies with the students who are part of the WeChat mobile learning experiment.

Their preference for an ideal MALL platform is similar to the 110 participants as reported in table 7. Some respondents suggest the inclusion of different types of Apps in their dreamed mobile learning platform, such as popular online dictionaries, vocabulary learning apps, AI-powered English learning apps with the function of auto-scoring of spoken English, and also apps of websites that focus on teaching English in a large scale. Their preference for the functions of a MALL platform include the following

- Interactive: the respondents indicate that they prefer to join in learning communities to interact with teachers and other classmates or learners within or outside of classroom context, including native English speakers.
- Interesting: not a surprise, gamification and games would make learning fun and will keep them motivated and engaged.
- The use of Multimedia: They prefer a combination of different content format such as t ext, audio, images, animations, video and interact ive content would be preferred by the respondents

- Flexible: The respondents hope that they can be self-paced in learning.

Only a few of 548 respondents showed their reluctance to learn English on MALL Platform.

6.4. Discussions

This pilot study is an attempt to address the effectiveness of the proposed WeChat-supported MALL Project for Chinese EFL college students and to discover their preferences and needs for mobile learning. Data obtained from the post-survey questionnaires highlighted students' positive perceptions towards the integration and implementation of MALL, which indicate the potential of mobile learning for millions of students. The results confirmed the findings of previous studies on EFL learner' attitudes toward phone-based MALL [20] [28]. Our study further highlights opportunities of MALL in facilitating communication and motivating learners to engage in independent learning, thus enhancing learner autonomy

Although most of the participants in this study preferred to use mobile phones to learn English, the actual frequency of usage still needs enhancement. It seems that college students in general tend to use their phones more for chatting and entertaining than for studying. As Stockwell [29] suggests students' non-use of mobile phones for language learning might be linked to the lack of guiding and mentoring [29]. Therefore, we suggest that more EFL teachers conduct action research on how best to use MALL in their classes. We also hope that language educator can intentionally enhance students' awareness of the benefits of mLearning and can guide students to use mobile technology in language learning.

In addition, this study also generates guidelines for designing a more effective MALL platform, including:

1) MALL platforms will need to be more adaptive to students' learning. Intelligent features need to be added so that it can automatically track students' learning and send them reminders when they fall behind. An adaptive learning system will also recommend learning materials that are relevant to students' interests or their needs to improve their English competencies.

2) Instructors need to design appropriate tasks and activities to encourage students' use of mobile apps and learning platforms. Game-based learning or gamification of language learning is what the mobile generation of learners desire most.

3) A variety of content should be posted on WeChat's public channels and they should be in multimedia format to accommodate students' different learning styles. The content can include in-class learning slides, test-oriented material and exercises, English songs, news and movies, and learning games.

4) For a mobile technology-based teaching innovation to be influential, there need to be learning communities for students to join.

Our study aligns with findings from previous studies [21], which states that the future of MALL is to exploit

the communication and multimedia affordances of mobile devices in ways that support collaborative, task-based learning both within and outside of the classroom.

7. Conclusions

By analysing WeChat's affordances for mobile language learning, this study aims to explore how to integrate WeChat-based mobile-assisted language learning into College English Curriculum by proposing an innovative WeChat-based teaching model coupled with Classroom teaching and Computer-assisted language learning (CALL). In addition, a pilot study was conducted to examine the perceived effectiveness of WeChat on English learning by mobile phones based on WeChat's Official Subscription Account–*College English Learning Platform*. Even though this study finds that most of the college students enjoy learning English on mobile phones, students has not embraced mobile as their preferred and primary may of learning. WeChat as the most widely used social media tool is not an automatic learning tool for its users. In order to bring MALL into College English teaching, WeChat needs to be integrated into a learning management system. Its desktop version can be used in face-to-face classroom teaching and in computer-assisted learning. All these efforts will work in accordance to provide a user-friendly mobile learning environment for students in higher education.

Finally, we want to acknowledge the limitations of this study, from demographics of participants to data collection. First, most of the participants are sophomores from all majors in a second-tier university in China. They might not be representative of students in other types of universities. Second, data of this study focus on students' perceptions. Future study should also explore teachers' experiences with MALL, including curriculum design and implementation. Third, this study did not explore gender differences in mLearning participation and usage. This is certainly an area that is worthy further investigation. It is known that male and female students use their phones quite differently in daily life. Knowing how these differences affect their learning habits can lead to implications for the design and carry-out of mobile learning with future students.

Because of the exploratory nature of this study, we did not conduct any comparison between groups of students. The next stage of this study is to assess students' prior competencies of English and then put them into clustered experimental groups and control groups. Inferential statistics (T-test, ANOVA, and factor analysis) can further reveal the impact of MALL and social media tools on students' learning outcomes.

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