The Use of Mobile Devices in Language Learning: A Survey on Chinese University Learners' Experiences

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Abstract

Despite the fact that mobile-assisted language learning (MALL) has been extensively discussed by language educators over the past five years, the adoption of mobile technologies, especially smartphones, in learning is still debatable for various stakeholders. One prominent stakeholder, is, of course, students. Students' prior learning experiences regarding this matter should be seriously taken into account in today's learner-centred educational paradigm. The study reported here attempts to uncover EFL students' previous use of MALL. A questionnaire survey of 235 Chinese university students and a nine-student text-based group discussion formed the data for analysis. Results suggest that the students generally hold a positive attitude toward the use of mobile devices in their learning, and it is a fait accompli that they have engaged in MALL, both self- and teacher-initiated. Implications for language educators and learners are discussed based on the findings.

Keywords: MALL, China, Experiences, Learner-centred education

Introduction

There seems to exist a salient gap between the adoption of mobile technology in our daily lives and in education. Given that mobile technology is now part of our personal lives (e.g., in the form of mobile payments, games, and online chats), it is, to some extent, surprising to find negative attitudes or even criticism toward the use of smartphones in learning (Reinders & White, 2016). These attitudes are particularly seen in China, where, partly due to the examination-oriented culture, smartphones are often perceived as an intrusion and interruption to students' learning (Miller & Wu, 2018; Wu, 2018b). Consequently, students are required to focus solely on textbook memorization so as to achieve good grades.

In recent years, several Chinese universities have adopted a new policy of banning the use of smartphones in classrooms. Similar to the Chinese situation, there is a rising trend among schools in the United Kingdom and France of banning phones in classrooms[1]. This top-down policy has triggered discussions among school teachers and their students. One of the main issues here is that growing up in different technological eras, teachers and policymakers may have different experiences and perceptions about the usefulness of technology in classrooms. As education nowadays is often labeled as learner-centred, students' voices and prior learning experiences naturally should be considered when making any decisions about educational changes and policies. As argued by Manca and Grion (2017), students' views and prior learning experiences "represent a valuable resource of information for teachers and policy-makers" and their voices have "a 'transformational potential' for school practices" (p. 1153). Although students' perceptions regarding the use of mobile-assisted language learning (MALL) have

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[1] See recent BBC and CNN news (France) https://edition.cnn.com/2018/07/31/europe/france-smartphones-school-ban-intl/index.html & (UK) https://www.bbc.com/news/uk-44546360

been reported from different contexts, there is still a scarcity of research into learners' previous experiences, particularly in the Mainland Chinese context (Zou & Yan, 2014). Against this background, this article sets out to explore university language learners' learning experiences in relation to mobile technology.

The paper begins with a brief review of the recent learning paradigms from formal teacher-fronted to out-of-class learning, followed by some studies of learner perceptions and experiences in the field of MALL. The rest of the paper focuses on two important sources of the data in this study: student questionnaires and a focus group discussion. Findings are presented and discussed in terms of preferences for mobile tools, places for carrying out MALL activities, and learning activities for the four language skills. The paper ends with some pedagogical implications and limitations of the study.

Literature Review

MALL: From classroom learning to learning beyond the classroom

There is a paradigm shift in language education from the traditional bricks-and-mortar, teacher-centred, and face-to-face instruction to open, learner-centred learning approaches. Against this background, the concept of *Learning Beyond the Classroom* (LBC, Benson, 2011) has gaining popularity among educators. It extends teachers' understanding about the *Location* (When and where), *Formality* (Formal and informal), *Pedagogy* (The role of instruction), and *Locus of control* (Decision maker) of student learning. As Lankshear and Knobel (2011) believe, we are entering a postmodern knowledge society that features an open, flexible, non-linear, and collaborative way of learning. This new paradigm has been supported by various new technologies, in particular, mobile technologies.

Among the different mobile devices available to teachers and students, smartphones have a high penetration rate, especially in China. According to Ericsson (2018), China has had the largest figure of new mobile subscriptions in the first quarter of 2018 (53 million, subscription penetration rate: 106%). The large ownership of smartphones has triggered educators to consider the integration of this personal technological device into everyday language learning in terms of face-to-face (Guo & Wang, 2018) and distance learning (Qian & Tang, 2018).

Mobile-assisted language learning (MALL), as a rising field of inquiry, has become one of the most heatedly discussed topics among educators and researchers. Various innovative teaching practices have been reported across the globe in the past decade. Furthermore, with more educators realizing the value of out-of-class learning, more studies of promoting out-of-class learning have been seen, including vocabulary learning (Chik & Ho, 2017), four language skills (Sockett & Toffoli, 2012), and learner autonomy (Hafner & Miller, 2018). More recently, largely relying on the use of mobile devices, augmented reality (AR) has become one of the most up-to-date trends in out-of-class MALL (Wang, Callaghan, Bernhardt, White, & Peña-Rios, 2018). Liu and Tsai (2013) reported an exploratory study from an English writing course with five university students. Based on the analysis of student essays and their written reflections, the GPS-based, AR learning materials were found useful to provide learners with linguistic and content knowledge in order to prepare students for their English writing practice. Although this study is small in its scale, it is clear that the use of AR has the benefit of extending student learning into their personal lives.

Based on the above discussion, learners and teachers nowadays have access to a variety of mobile technologies that they could make use of both in class and out of class. Yet, we still need to acquire more understanding of our learners' prior MALL experiences before it can be implemented on a large scale. Among others, Qian and Tang (2018) conducted a survey study

to find out how 148 Chinese adult distant learners use their mobile devices in out-of-class learning contexts. The study uncovered useful information such as mobile learning habits, the well-received apps, and the relation between informal and formal learning. However, as they rightly pointed out, there have been surprisingly very few studies exploring how Chinese students engage in MALL. The current study, therefore, aims to address the issue by adding more findings from EFL learners at an Eastern Chinese university.

Student perceptions and experiences of mobile-assisted language learning (MALL)

MALL has become an established educational research domain, moving from the previous content-delivery teaching mode (Kukulska-Hulme, 2005) to the current collaborative learning mode (Kukulska-Hulme & Viberg, 2018). Among various research themes, studies of students' perceptions and learning experiences of MALL have proliferated in the past five years, and researchers generally report that students welcome the integration of mobile technology although they also acknowledge some limitations to this form of learning. For example, Kim, Rueckert, Kim, and Seo (2013) delved into 53 postgraduate students' perceptions and experiences of MALL in one American university. Only 48% of the participants indicated that they had the habit of using their phones multiple times a day; however, almost 90% of the students held positive attitudes toward the use of mobile devices in learning. Explanations include the lack of access to mobile devices several years ago and the academic workload for postgraduates. They argued that the ownership of mobile devices would raise students' phone use for language learning. Additionally, the study suggested that learners would be more willing to participate in MALL activities when a meaningful, personalized and collaborative environment was provided.

More recently, Dashtestani (2016) investigated Iranian students' use and attitudes regarding MALL through questionnaires, interviews and classroom observations. Findings suggested that students appreciated the ubiquity (*anytime*, *anywhere*) and portability of mobile devices. Nonetheless, the high cost and the lack of teacher interest in promoting learning via mobile technologies were major barriers for Iranian students to make full use of their devices for educational purposes.

In Hong Kong, Ma (2016, 2017) investigated Mainland Chinese and Hong Kong students' attitudes toward and experiences of using mobile devices in and out of class. The participants provided positive feedback in relation to their use of phones and other mobile tools for language learning. However, a few issues were noticed including an unbalanced use of mobile devices in promoting the four language skills (speaking was overlooked) and a mismatch between students' perceived self-regulating ability and their actual ability. Based on the holistic view of the investigated students' use of mobile devices, Ma (2017) proposed a socio-cultural framework for mobile technologies-mediated L2 learning, incorporating three key elements of L2 agency (psychological tools, e.g., motivation), mobile technologies (physical tools, e.g., apps), and other agents (others' assistance, e.g., classmates and parents). As she suggested at the end of her paper, more research of this kind is needed with larger sample sizes in order to present an all-around and in-depth picture of MALL in EFL contexts.

Similarly, Ko (2017) investigated 167 Korean university students' use and perceptions of technological devices. Around 59% of the respondents argued that desktops and laptops were more comfortable to use compared with smartphones. Reasons included bigger screens (12.9%), faster processor speed (7.1%), and fewer technical problems (3.5%). Over 60% of the participants viewed desktops or laptops positively. Smartphones, on the other hand, were favoured for the ubiquitous feature (78%) and portability (13.4%). In general, the Korean learners perceived smartphones and laptops as two useful tools for learning.

Recent studies have also investigated learners' perceptions of teacher's roles in technology mediated learning context. In Mainland China, Qian and Tang (2018) explored adult distant learners' perceptive role of tutors. Results suggested that teachers played a minimal role in students' LBC; however, over 90% of their EFL participants expressed expectations from their teachers. As they pointed out, their study contrasted with some previous findings from ESL contexts in that ESL students did not express a strong need for teacher intervention. In a similar vein, Wu (2017) investigated teacher's presence in synchronous mobile chats in a MALL project. The Chinese participants welcomed the teacher's participation for both affective and cognitive reasons (see Wu, 2017 for a detailed discussion). These two latest studies in Mainland China have rightly reminded researchers about the cultural factors that influence students' attitudes towards teacher's role in MALL.

In short, previous studies have revealed mixed findings on students' perceptions of mobile devices in learning. That is, students in different countries have developed more positive orientations towards the use of mobile devices over the past decade, although a variety of barriers prevent them from making the best use of those devices in both formal and informal learning. In terms of learners' learning experience with MALL, Ma (2017) has concluded that "there are only a small proportion of studies investigating learner-initiated experience or which listen to the learner's voice in their daily routines" (p. 187). Thus, to fill in the gap, this study attempts to answer the following research question: *what are Chinese EFL students' experience of using mobile devices, particularly smartphones, out of class for language learning purposes*?

Methodology

The current study employed a qualitative standpoint in exploring language learners' experience of MALL. Two sources of data were obtained in this study: a survey questionnaire and a WeChat group discussion. In order to obtain a general idea of Chinese university learners' experience with MALL, a questionnaire was administrated to 235 English major students. In addition, the researcher invited nine out of the 235 students to discuss their perceptions regarding MALL in order to obtain more emic insights into the issue (Mackey & Gass, 2016).

Participants

The study used convenience sampling to distribute a questionnaire in a foreign language school at an Eastern Chinese university. In total, 235 valid questionnaires were returned. The respondents came from three different cohorts in the university English department. Since the school requires a minimum admission score from applicants in *Gaokao* (the Chinese university entrance examination), the participants have been assessed as intermediate language learners. They were year-1 (31.49%), year-2 (38.72%), and year-3 (29.79%) university students. Due to the gender ratio in the department, only 24 male students (10.21%) completed the survey. As for the students' home language, the majority of them use Chinese dialects (56.60%) although Mandarin is used frequently at home (43.40%) as well.

Data Collection and Analysis

Survey Questionnaire. A survey questionnaire was adapted, with permission, from Ma's (2016) English version and translated into Chinese. The questionnaire was believed to be well designed and had been tested for its reliability with a group of Hong Kong students in Ma's research project (2016, 2017). The questionnaire focuses on the elicitation of learners' prior

experience with MALL. In total, 17 questions made up the two parts of the questionnaire: (1) participants' demographic information and (2) their previous language learning experience with mobile devices (e.g., smartphones, laptops[2], and tablets). In part two, multiple-choice questions were used, which included single-answer items (e.g., How often do you use the above means to practice speaking via mobile devices?) or multiple-answer items (e.g., Using mobile devices, I have practiced writing in a second language via the following means___.). In this study, the questionnaire was piloted with eight Chinese undergraduate students from the research site and one postgraduate student from a Hong Kong university. They were prompted to voice their problems regarding the survey items (e.g., wording, clarity, and length). Although statistical reliability could not be established for the survey instrument, the results of the survey and the discussion group speak to the internal consistency of the instrument. In general, the questionnaire took the participants three minutes to complete as it was short and in their native language. Yet, the short duration indicated that not much in-depth feedback was returned as the questionnaire items were multiple-choice questions. This has naturally led to the need for another data collection method, which was group discussion in this study.

Since Ma's (2016, 2017) questionnaire was well designed and it was translated into Chinese, no problems were reported back to the researchers in the pilot stage. The questionnaire was thus shared with the other respondents through a Chinese online survey website. Note that as the eight students' responses were found useful and they understood the intention of the questionnaire, their feedback was included (see Mackey & Gass, 2016). After the administration of the survey, descriptive statistics from the survey were calculated to display a general pattern of the students' previous experience with MALL.

WeChat Group Discussions. It has been argued by Mackey and Gass (2016) that questionnaires have the benefit of eliciting data in a large scale within a short period of time. Yet, other techniques should be supplemented in order to address the lack-of-in-depth-data caveat of questionnaires. To this end, the study further adopted the method of WeChat group discussions so as to get more emic perspectives such as personal stories and learning habits from the students. There were two reasons for using WeChat in this way: a) Chinese students, influenced by the time-honored face (*mianzi*) culture, may have a tendency to impress or please the interviewers by giving the answers the interviewers may expect, especially in face-to-face interviews. This issue has been internationally recognized as the Halo Effect (Mackey & Gass, 2016), and thus the current study aimed to address the issue by avoiding the face-to-face pressure and students were later found to be more candid in the WeChat discussion when they observed their peers sharing similar thoughts and concerns. b) The invited students were from the researcher's larger research project (Wu, 2017, 2018b), in which they were asked to initiate out-of-class discussions throughout eight weeks. Thus, the interviewees were already used to the WeChat group chat and had developed trust with the researcher to some extent. It was hoped that the nine interviewees would offer more emic and in-depth information with the prompt from the researcher and student peers.

In total, five year-3 and four year-2 students formed a chat group in the researcher's longitudinal project about students' MALL experience through WeChat group discussions. Thus, they were invited to discuss their attitudes toward and previous experience with MALL as one week's topic. The nine students were prompted to focus on two questions: 1) What do you usually do with your mobile phones? and 2) Have you had any experience of using your phones for language learning? Their discussion transcripts were exported into the widely used

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[2] It is noted that some researchers may not perceive laptops as mobile devices due to the different types of activities and tasks completed. The current researcher, following Kukulska-Hulme (2012) and Ma (2016), believes that "[l]aptops … also fall within the scope of mobile learning" (Kukulska-Hulme, 2012, p. 3701) due to their portability.

NVivo software (Hilal & Alabri , 2013) and were thematized based on the various kinds of activities that the students carried out with their mobile devices (Braun & Clarke, 2006). Furthermore, students' feedback was read iteratively for interesting episodes of their MALL experiences in order to give a more vivid and emic picture of Chinese students' extramural use of their mobile tools.

Results and Discussions

This section attempts to uncover the 235 Chinese participants' previous experience regarding MALL. First, the learning preferences and places are discussed, followed by detailed examples of students' experience in sharpening the four language skills. To further elaborate on the questionnaire findings, students' comments from the online focus group were analyzed to illustrate how they were using their mobile devices in their daily lives and for learning.

Survey Questionnaire

Preferences of Mobile Devices for Language Learning. Among the surveyed university learners, smartphones such as iPhone, Samsung, and Huawei were the most popular mobile devices for language learning. Over 85 percent of the respondents reported a preference for using their smartphones for learning. However, tablet PC (28%) and MP4 (12%) were not ranked as highly. These findings are consistent with Ma's (2016) original study at a university in Hong Kong with 25 students. She reported that laptops (76%) and smartphones (64%) were the most useful tools for language learning.

Similarly, in Zou and Yan's (2014) research project, 101 university students generally held positive attitudes towards the use of laptops and mobile phones, and around 60% of them spent over three hours per week learning through their phones. In their study, over 50% of the students showed a preference for using their laptops instead of mobile devices for learning. Some reasons for this were 1) many respondents carried their laptops to class, 2) laptops had a large screen size and a long battery life, and 3) the price of laptops in China was lower than that of smartphones (although this may be changing). A possible explanation for the difference between Zou and Yan's result (laptop as the first choice) and the current survey finding (smartphone as the first choice) is that the smartphone industry has developed so rapidly in China, and technical problems such as small screens and a short battery life have been addressed to some extent. Another possible explanation is that there is no such bring-laptop-to-classroom culture in the current research site. Indeed, the surveyed university holds a conservative attitude towards technology, including a no-smartphone policy in the classroom. Additionally, Zou and Yan revealed the regional differences regarding the adoption of mobile technology into learning; students who studied or lived in Eastern China were more actively involved in mobile learning. It should be pointed out that the current research site is situated in one of the most developed cities in Eastern China, and some respondents in this study own more than one smartphone.

An interesting finding from Figure 1 is the fact that less than 30% of the respondents (N=65) believed tablets were useful in language learning. This contradicts Dashtestani's (2016) report from Iran, who found that nearly 90% of his respondents preferred tablets as the major tool for learning. There is a popular practice of constructing iPad smart classrooms in primary and secondary schools, not only in China (in New Zealand, Falloon & Khoo, 2014; in Taiwan, Wang, Teng, & Chen, 2015; in the USA, Mango, 2015). With heavy financial investments from the Chinese government, the current finding offers an upsetting result, given that students held less positive feelings towards tablets, unlike what policymakers had expected. One

possible explanation for the less promising finding may be the lack of positive experience with tablet learning, which can be traced back to the classroom teaching. Thus, there is an urgent need for appropriate pedagogical approaches and professional development for school teachers (Miller & Wu, 2018; Wu, 2018b) so as to provide students with a positive learning experience and thus, in turn, influence students' beliefs regarding MALL (Borg, 2003).
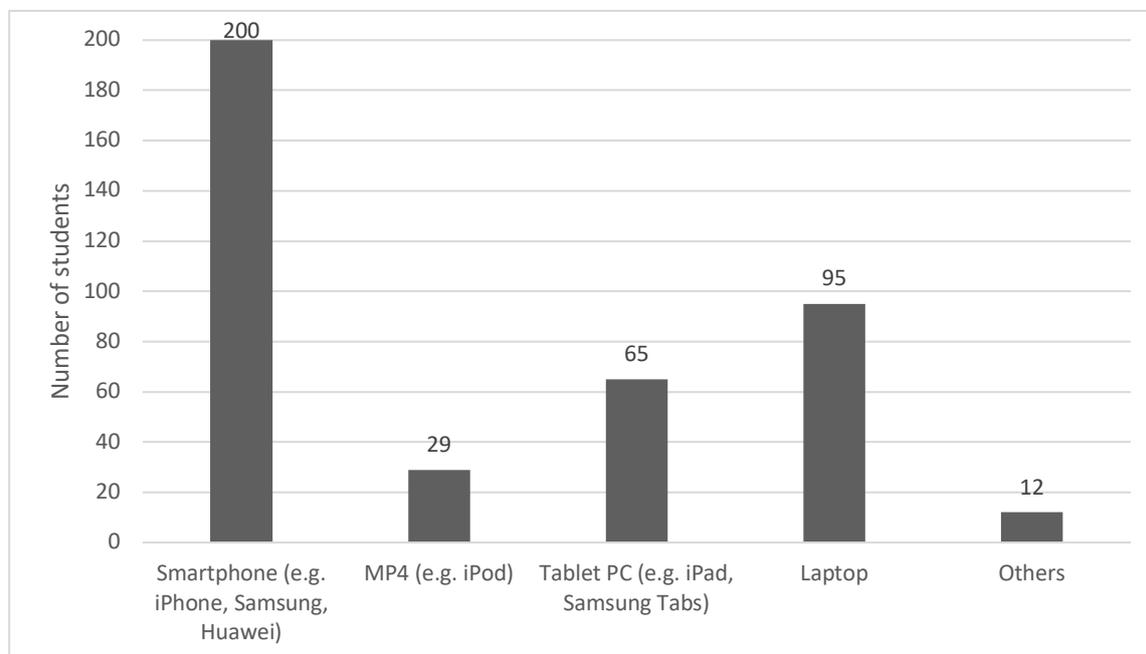

Figure 1. *The number of students and the most useful device(s) for language learning*

Places for Carrying Out MALL Activities. Figure 2 showcases that students not only make use of mobile devices in class, but also in various out-of-class situations including dormitory, home, commuting, and library. In comparison to this study, Qian and Tang (2018) reported similar findings from their Chinese distant language learners; they usually engaged in MALL at home and during commuting and jogging. Similar to Ko's (2017) findings from South Korea, the current finding supports Richards' (2015) and Benson's (2011) propagation of *Learning Beyond the Classoom* (LBC) as students are initiating self-access learning in their common living spaces. This reflects the fact that the surveyed participants have begun to capitalize on the *ubiquity* of their personal smartphones.

Although it seems promising that learners in the previous and the current studies are aware of and are making use of their mobile devices in learning, the literature also reminds us that digital residents are not able to perform well in multitasking environments (Chwo, Marek, & Wu, 2018), particularly when they are situated in distracting mobile environments (e.g., during commuting). Similarly, Jones (2010) conducted an interesting study in Hong Kong by looking into the attention structures of four students studying in front of their computers. Very surprisingly, students were attracted by their surroundings (e.g., family conversations and bedroom posters) over a quarter of the collected 738-minute webcam data. Findings suggest that students nowadays are constantly engaged in polychronic activities, and there is a need to develop polyfocal attention structures. The above analysis points to the importance of reconsideration of the right places for learning and the development of multitasking skills for our students. Is the classroom still the only *right* place for effective learning and should we question it in today's technological times? How could learners be supported to maximize the positive effects of MALL in distracting environments?
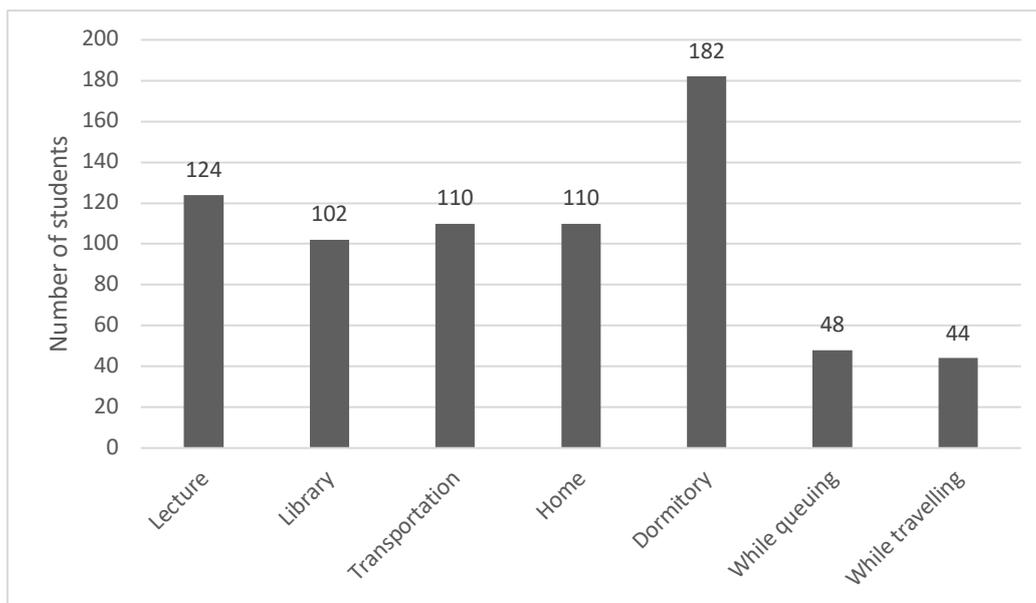
Figure 2. *The number of students and the use of mobile devices in different situations (N=235)*

Four Language Skills and MALL. To further explore the participants' out-of-class learning experience with mobile devices, the questionnaire also surveyed the learning resources and tools. Table 1 summarizes the diverse resources they used, and it can be concluded that learners have used their mobile tools for various learning activities, sometimes initiated by their teachers and sometimes by themselves. The remaining section elaborates on the four language skills, one by one.

Listening: this is the most extensively practiced skill according to the survey. Near 80% of the students had experience in learning English by listening to English songs and watching TV dramas. However, some caution is in order when we interpret the results since these activities can be carried out with different purposes. In other words, watching TV dramas, for example, makes a qualitative difference for students with a leisure purpose (e.g., watch *Harry Potter* movies with a focus on the story plots) and those with a learning purpose (e.g., watch *Harry Potter* movies with a specific focus on the unfamiliar language expressions). Although incidental learning has been found beneficial to the development of vocabulary, listening and reading skills (e.g., Sockett & Toffoli, 2012), effective learning strategies and teacher support are of prime importance for learners (see this interesting podcasting study of listening strategies by Alm, 2013) as learning beyond the classroom is not as simple as it sounds.

Reading: students in this study also had plenty of experience in reading English news reports and browsing English websites. Reflecting on the reason why most of them were engaged in news reading, the students sometimes had compulsory assignments from their course teachers. For instance, the teacher/researcher set out-of-class newspaper readings as a major assessment task in one of his courses. Therefore, students were often motivated to improve their reading skills through teacher-initiated tasks. However, in addition to this, over 50% of the respondents also reported using social media to practice their reading in English.

*Writing***:** similar to listening and reading, writing is featured with both student-initiated (e.g., text chatting) and teacher-initiated (e.g., writing software evaluation) activities. In the researcher's class, students were encouraged to utilize an automatic essay evaluation system (https://www.pigai.org/) to improve their writing. The system has been found useful in terms of offering tailored feedback on lexis and grammar; however, according to Wu (2018a), the system has the drawback of failing to identify students' plagiarism issues.

Speaking: contrary to other language skills, speaking in English is the skill least practiced by the learners. Over 65% of the students did not have any previous experience in using mobile devices for improving English speaking. Similarly, over 45% of Ma's (2017) participants lacked experience in practicing speaking with mobile devices. Although researchers have argued for the use of audio or voice functions of the current technologies for learning (e.g., Godwin-Jones, 2017; Hew & Cheung, 2012), not many studies have been conducted so far. Two possible explanations for Chinese learners not using their mobile devices for speaking in English are the lack of importance given to speaking in traditional assessment and the Chinese "mute English" plague (Wu, 2018b). "Mute English" depicts the situation that learners focus on and have much better performance in input-related language skills (reading and listening) than output-related skills (writing and speaking). Without seeing an immediate effect in improving their test grades and a fear or lack of confidence in speaking English, learners may sometimes adopt an avoidance strategy by focusing on the practice of other language skills. One major approach to motivating students' practice of speaking while improving listening, reading, and writing is through the creation of a multimodal documentary. In Hong Kong, Hafner and Miller (2011, 2018, 2019), for example, reported that students appreciated their chances to practice speaking by rehearsing video scripts repeatedly outside of their classrooms. In a Mandarin as a second/foreign language context, Thang, Mahmud, and Tng (2015) discovered that through the production of a documentary, Malaysian learners showed more confidence in their speaking performance. Liu, Huang, and Xu (2018) implemented a similar learning project with elementary school students in Taiwan. Findings suggest that students who worked collaboratively reported less anxiety of participation than those working alone. Above all, it is suggested that improving speaking is not an easy task for EFL learners, and a starting point for teachers to contemplate is to offer both cognitive and affective support to learners from teachers and peers.

Table 1
The number of students and students' preferred online resources/tools for each language skill (N=235)

Language Skills	Online Resources/Tools
Listening	Songs, 78.30%
	Online TV, 77.45%
	Audio news, 62.13%
	Video clips (e.g. TED), 53.19%
Reading	English news, 71.06%
	Websites (excluding news, blogs, etc.), 57.45%
	Social media, 52.34%
	E-books, 40.85%
Writing	Text chatting, 62.55%
	Automatic essay writing evaluation software, 26.80%
	Emails, 17.87%
	Weibo (Chinese Twitter), 15.32%
Speaking	No previous experience, 65.53%
	Voice messages, 22.55%
	Language learning apps, 15.32%
	Video chatting, 3.83%

From the above discussion, it should be clear that the majority of the 235 Chinese learners are aware that they can use their smartphones and multiple online resources to facilitate

their informal learning. With or without teachers, students are making use of their mobile devices in learning. Despite the fact that they appreciated the "*anytime, anywhere*" features of their phones (Kukulska-Hulme, Lee, & Norris, 2017; Wong & Looi, 2011), school administrators, teachers, and parents sometimes regard these defining features of digital devices as distractions and interference in learning (Bartholomew & Reeve, 2018; Thang et al., 2016). When students have problems in dealing with various activities and in performing well in their study, it seems easier to blame digital devices as they are new and visible to us. Similar to Alm's (2015) study, the paper also calls for teachers and policymakers to acknowledge learners' existing MALL engagement and take corresponding actions to facilitate student learning and, more importantly, avoid a long time lag between "what students are actually doing, and what researchers decide to explore" (Chwo, Marek, & Wu, 2018, p. 68).

WeChat Group Discussions

With the findings from the questionnaire data, nine students were invited to form a WeChat discussion group with the researcher. The purpose was to have a better idea of the students' experience with mobile learning. According to the discussions, at least seven different daily activities were reported back from the nine students. They used their mobile devices for studying, checking social media, playing mobile games, chatting via instant messaging apps, searching for information, online shopping through mobile payments, watching TV, and making phone calls. However, they engaged in more than these, including taking phones and listening to music.

Students have become digital residents to a large extent and are unable to finish various tasks without the assistance of their phones. Thus, teachers, first of all, have to admit the irreplaceable role of phones in our students' lives. As Jones (2010) believes, "young people build their identities by traveling across three main social spaces: home, school and cyberspace" (p. 154). This echoes the concept of seamless learning. That is, learning is no longer limited to traditional classrooms, but has been extended beyond them. Yet, Wong and Looi (2011) argue that a misbelief should be cautioned that learners are required to learn *every time*, and *everywhere*, but instead, they should be supported to "learn wherever and whenever they are stimulated to learn" (p. 2364).

Based on this, the researcher further prompted the students to reflect on their prior learning experience with mobile devices. Students gave some real-life examples including watching American TV dramas, communicating with native speakers through social media, and looking up new vocabulary in mobile dictionaries. Two excerpts are chosen here as they provide two interesting episodes that showcasing the current participants' attitudes and experience of MALL. Excerpt 1 below begins with Gabrielle's use of a smartphone in language learning (lines 1-3) and teacher's follow-up question about watching TV series for foreign language improvement (lies 4-5). Keith and Candice joined the discussion by sharing their experiences and exchanging ideas about how to make use of the TV resources more effectively. On line 12, Candice put forward the question of how subtitles can be blocked when watching televisions. As can be seen from lines 14-18, Keith and the teacher developed their own strategies of watching TV for language practice. Yet, one question raised from this short exchange was whether there were more effective ways for learners to make the most of the multimedia resources. This point was supported by Gabrielle's comment (lines 2-3) saying that she needed guidance on the use of social media as a way to develop her language skills.

WeChat excerpt 1 (no modifications are made except to the identity of participants) :

1. Gabrielle: I usually use mobile phone to look up words. And sometimes I would like
2. to watch English movies. I have facebook, too. But I dont think i can use it well so it is
3. idled.
    …
4. Teacher: @Gabrielle? I think u brought up a very interesting point! What
5. does learning mean anyway? Can watch English tv dramas count as learning?
    …
6. Gabrielle: I think so
7. Keith: @Teacher yes!i blocked the subtitles of TV dramas.Then i get the
8. punch lines.
9. Candice: whoa that's cool
10. Teacher: But when u finish the tv drama, can u recall anything about the
11. language?
12. Candice: but how did u block the subtitles?
13. Gabrielle: When i watch movies, i can get some idiomatic expression

14. Teacher: Use a paper to block 🤣 @Candice
15. Teacher: @Gabrielle do u have chance to use them later?
16. Keith: with my mouse mat@Candice
17. Keith: @Teacher 👏 👏 👏
18. Keith: you know me!@Teacher

Similarly, in excerpt 2, Keith first acknowledged the potential problem of using smartphones for learning, however, he agreed that guidance and support from teachers are of prime importance, and teachers should bear some responsibilities in re-configuring the roles smartphones play in learning. The student clearly expected more from his teachers. Thus, one important implication from this finding is that teachers are now pushed to reconsider their roles in both classroom and out-of-classroom settings. Other research projects have also pointed to the urgency of teacher support in students' out-of-class learning (e.g., Dashtestani, 2016). Students from examination-oriented contexts or less-technological developed regions should be empowered and supported to gradually develop autonomy through the collaborative mode of learning (Teng, 2019; Zhang, 2019).

WeChat excerpt 2 (no modifications are made except to the identity of participants) :

1. Gabrielle: Most of the classes i need my phone to look up words
    …
2. Keith: like i guess everyone definitely have this kind of experience like when we're on
3. the phone, at first,you just told youself that just five minutes,but ended up being stuck
4. on the phone for 1H
    …
5. Keith: @Teacher yes. that's what i want to say, digital devices are becoming
6. a part of our live. so somehow teachers have to reframe what role phone play in class.

Another interesting point from the above excerpt is the language mistakes and typos from Keith. Synchronous mobile communication in students' foreign languages poses higher

cognitive, linguistic, and technical demands. Hence, simple as the conversations might seem to be, EFL students may find it hard as this mode of communication requires fluency and a fast typing speed at the same time. It seems vital to create more opportunities for learners out of class to improve their language fluency and accuracy, not only in speaking, but also in synchronous online communication.

To conclude, mobile devices are able to provide learners with a unique experience of seamless learning without constraints of time and location (Ma, 2016; Wong & Looi, 2011). Learners in the current study appreciated the value of mobile devices in their learning and have exploited them to create more personalized learning spaces for themselves. Yet, mobile devices have not been fully explored among Chinese learners as they may not have sufficient experience to carry out informal learning without any guidance (e.g., metacognitive skills) from their teachers.

Conclusions

One of the key findings of this study is the fact that students were already engaged in various types of out-of-class activities aided by their mobile devices; however, they need more guidance in order to facilitate the development of their language skills. Thus, students should be encouraged and supported by their teachers to exploit these powerful tools for learning nowadays. The ubiquity (*anytime, anywhere*) of mobile devices is believed to be their most important affordance, and thus students' out-of-class access should be taken into consideration as the current learning paradigm has been transformed into a more boundless mode of learning (Lankshear & Knobel, 2011).

The main limitation of the study is related to the research methods. The participants were from a foreign language school in Eastern China, which makes it difficult to generalize the findings to other contexts within China. Furthermore, the research site is situated in one of the most economically powerful cities and thus the students may have better access to advanced technologies compared to less developed cities. In recent years, there is a rising trend of advocating educational justice by researching the digital divide among students (e.g., Thang, Noor, Shi, Taha, & Aziz, 2017). Thus, more research, of the type reported here, is necessary in order to raise educators' awareness of how students in the 21st Century want to learn and to prepare them more sufficiently for their future workplace.

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