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Rethinking distance education in China: Mobile-assisted language learning designs in a blended foreign language curriculum

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Rethinking distance education in China:

Mobile-assisted language learning designs in a blended foreign language curriculum

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Biographies

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Abstract

In recent years, China's distance education has largely adopted a blended learning approach. However, the online aspects of learning are characterized by a lack of interactivity and individualization. This could change with the advent of mobile learning. Many web 2.0 tools that allow for collaborative interactions are compatible with mobile devices, and mobile learning can engage learners by offering a rich, informal, contextualized, situated, and ubiquitous learning environment. Mobile learning can also be personalized as smartphones and other devices can be customized and learning resources can be tailor-made. This is very important for Chinese distance learners who have a wide age distribution and diverse learning experiences and therefore have individual learning needs and desires. It seems an opportune moment to integrate mobile-assisted language learning (MALL) into a blended foreign language curriculum. A collaborative project between The Open University UK and the Open University of China (Nanhai) enabled exploration of how MALL could be integrated in a blended foreign language curriculum for distance learners, from a learning design perspective. Based on a literature review, knowledge of the requirements and habits of Chinese distance learners gathered via a survey, and tutor feedback from a mobile learning pilot course, we present our findings and put forward a number of design principles that can guide mobile learning designs to support transformation of distance education in China.

Introduction

Blended learning in Chinese higher education, understood as a mix of online and face‑to‑face learning, started with the adoption of learning management systems around the turn of the century and has been implemented widely across China (Han, Wang, Li, & Cheng, 2016). Distance education in China has largely adopted such a blended learning approach, so distance learners read textbooks, study learning materials (including recorded lectures), and do assignments or tests on the Moodle-based learning management system (LMS) Guokaixuexiwang (国开学习网). If they have any questions or problems, they communicate with tutors and classmates online using either synchronous tools (e.g., live chat) or asynchronous tools (e.g., discussion forum). They are also required to meet regularly with tutors at local learning centres to have face-to-face tuition or hands-on training. Yet the online part of distance learning in China is characterized by a lack of interactivity and individualization (Wang, Shen, Novak, & Pan, 2009).

This could change with the adoption of mobile learning. Smartphones and tablets are available at increasingly affordable prices and with progressively more powerful functions. Many web 2.0 tools that allow for collaborative interactions, such as microblogs, videoconferencing, cloud storage, and many more, are compatible with mobile devices. For instance, WeChat, a social media application that is very popular in China, provides a wide range of services on smartphones, including multi-media messaging (text, photo, voice, and video), group chat, location-based services (e.g., sharing your real-time location), as well as a digital wallet for making payments. Educators in China can register with the WeChat public platform and get an official account at https://mp.weixin.qq.com/. Using the mobile WeChat official account, an educator can push learning resources to any subscriber via their WeChat official account. The basic WeChat platform service is free of charge to users. Many Chinese teachers are now sending learning resources to students' smartphones this way.

Learning with mobile technologies can engage learners in a rich, informal, contextualized, situated, and ubiquitous learning environment. Learners can be in control of their own time, place, and pace of their learning, which can be motivating and liberating for many adult distance learners who have only limited spare time to learn. Mobile devices and applications can also facilitate a more personalised approach to teaching and learning (Kukulska-Hulme, 2016). This is very important for Chinese distance learners who have a wide age distribution and diverse learning experiences and therefore have varied individual learning needs and desires. If we go beyond the concept of mobility

of learning materials as merely an extension of access to materials, and consider the mobility of learners and digital technologies, distance language education in China can shift to a social constructivist approach to learning. This approach would include collaborative and participatory learning activities wherein learners could interact more with other learners, teachers, and the sociocultural context.

Given the growing demand for English language learning, mobile-assisted language learning is a promising prospect in supporting a blended foreign language curriculum. It has been shown that mobile technologies are particularly well suited to support foreign language learning through applications and activity designs that take account of learners' needs and preferences (Kukulska-Hulme, 2016; Wang, 2017). As nearly every Chinese distance learner has a smartphone and has been gradually forming a habit of using it for learning English in their free time, it seems an opportune moment to integrate MALL into a blended foreign language curriculum. Li, Li, and Li's (2016) survey of students at Chinese universities looked into their learning habits and mobile app use for English language learning. It revealed that two-thirds of the students used the mobile apps in "unplanned free time" outside of class, which suggests that they are motivated to use these apps.

Furthermore, recent research shows that levels of self-regulated learning ability among Chinese distance learners may be higher than had been generally assumed (Hong, Im, & Li, 2016; Hong, Li, & Santosh, 2014), so opportunities to exercise that ability ought to be explored. While acknowledging that in some circumstances m-learning may have negative effects and implementation challenges (Chu, 2014; Osang, Ngole, & Tsuma, 2013), we believe that it has an important role to play in a blended curriculum and that it can be a catalyst for change (Kukulska-Hulme, 2010).

In this chapter, we report on research conducted by the authors between October 2016 and March 2017, facilitated by an extended research visit funded by the China Scholarship Council and the Sino-British Fellowship Trust. This collaborative project between The Open University (UK) and the Open University of China (OUC; Nanhai) gave us a unique opportunity to explore how to integrate MALL in a blended foreign language curriculum for distance learners in China, from a learning and instructional design perspective. Following a review of literature, we decided to gather data about the requirements and mobile device habits of Chinese distance learners via a survey. A mobile learning pilot project, which took place at the OUC (Nanhai) in March-June 2017, enabled further reflection based on feedback from instructors. To support onward adoption of mobile learning, we discuss a

number of design principles and consider their implications for curriculum and strategy.

Research Questions

For a broad and successful curriculum integration of MALL, many conditions have to be met, including educators' acceptance of student-centred learning (and perhaps student-directed learning), and competence in the use of mobile technologies and applications (Burston, 2014a; Forkosh-Baruch & Meishar-Tal, 2016). Accordingly, there is a need for guidance and often training on the use of mobile applications that are readily available (for example, dictionary apps). At the same time, the development and maintenance of new customized applications necessitates instructional design expertise, technical support, and institutional encouragement. The latter includes technological infrastructure development, administrative and financial support, privacy protection, and curricular flexibility (Burston, 2014b; Chwo, Marek, & Wu, 2016). The study reported herein examines integrating a MALL component in a blended foreign language curriculum for distance learners from a learning and instructional design perspective. Since mobile learning was new to the visiting scholar from the Open University of China – the chapter's second author who spent three months at The Open University UK, multiple initial research questions were formulated around the pedagogical benefits and design of m-learning in relation to the target setting of distance education in China. Two questions are relevant to the work reported in this chapter:

RQ1: What mobile learning designs can help distance learners learn the course content, improve communicative competence, and enhance communication with one another for learning support?

RQ2: What design principles have been proposed in the literature and how can they be used in the distance learning context under consideration?

A literature review conducted to answer these questions encompassed research literature as well as published practice guides and reflective accounts of practice. Selected findings from this review are reported in the next section.

Literature-based Study

Relevant literature spans a number of inter-related fields, including mobile language learning, computer-assisted language learning, mobile and ubiquitous learning, blended learning, online learning, distance learning,

learning design, and instructional design. In addition, relevant publications reporting on learning attitudes, aptitudes, and experiences among Chinese learners and Chinese distance learners (e.g., Hong, Li, & Santosh, 2014), who are studying in China or elsewhere, have been considered.

There are still relatively few publications on mobile learning (or MALL) specifically in the distance education context. While a broader view on MALL was offered in meta-analyses of MALL studies conducted by Viberg and Grönlund (2012) as well as Burston (2014a), Viberg's (2015) doctoral work on the design and use of mobile technology in distance language education is an important contribution to this field.

In addition to searches conducted across multiple online databases accessed via the Open University Library in the UK (e.g., Web of Science) and Google Scholar, the literature review included Chinese articles published in Chinese journals. Indicative findings are presented in the following sub-sections, contextualised within education practices and distance learning in China, and with an emphasis on practical implications for blended language learning.

Learning content design

First of all, it is important to consider the instructional goals or intended learning outcomes of any learning materials. If the goal is linguistic knowledge acquisition or language rehearsal, learning materials, such as mini-lecture video clips, exercises, assignments, and quizzes, can be put online and accessed from, or downloaded to, mobile devices. Many skills and competencies can be practised successfully online or in a mobile app (Burston, 2015). If the instructional goal is clarification of learners' queries or misunderstandings, or the application of linguistic knowledge to improve communicative competence in the form of group debate or role-play exercises, such learning activities may be best suited to a classroom where teachers and learners can have face-to-face dialogues or discussions.

Second, we need to consider distance learners' needs. Most Chinese distance learners have a full-time job and can only learn in their spare time. Additionally, they may not be able to attend face-to-face sessions due to their work schedules and responsibilities, for instance when they are sent on a business trip. In such cases, they may want to watch a recorded session available asynchronously at their own convenience. There are also learners who often move to live in another city because of job-related changes or transfers. A desktop computer is not often available in their room, but a smartphone is always at hand. They may find it invaluable to be able to access the face-to-face sessions on their smartphone.

Researchers have noted that an important advantage of blended learning is its curricular flexibility to cater to learners who have different learning preferences by providing them the same opportunities or learning experience through different modalities in the blends (McGee, 2014; McGee & Reis, 2012). Accordingly, face-to-face instructional materials should be offered through an LMS and be accessible on smartphones. Learners generally use mobile devices to engage in learning activities either as a matter of routine (e.g., commuting to work) or spontaneously (e.g., when the mood and moment is right) and may spend around fifteen or twenty minutes in a mobile learning experience (Kukulska-Hulme, 2012). As mobile learning can be highly fragmented (Trifonova & Ronchetti, 2003), tasks should not be too difficult or time-consuming so that they can be completed in brief time periods or in between other activities. Mobile learning can also be disturbed by outside distractions (e.g., noise, chatting). For these reasons, it is argued that MALL learning contents should be packaged in small, self-contained units that require limited cognitive processing (Burston, 2014c; Kukulska-Hulme, 2012; Rosell-Aguilar & Qian, 2016).

Previous mobile learning research has reported some learners' dissatisfaction with the small size of mobile device screens and difficulty in relation to text input (Sinen, 2015). Instead of typing, learners may speak into the mobile device if it is equipped with speech recognition or a recording function. Furthermore, several L2 (second language) acquisition projects have lent support to the hypothesis that the convergence of media facilitates learning more effectively than just written or verbal information. For example, incidental vocabulary acquisition has been shown to be more effectively enhanced by a combination of text and picture, or video glosses along with a text, compared with text only (Chun & Plass, 1996; Yeh & Wang, 2003). If possible, learning materials should be developed in multimedia formats to facilitate learning (Mayer, 2017).

Learning activity design

The strength of mobile learning lies in its potential to open up opportunities for personalized, authentic, situated, and collaborative learning that can also include benefits related to game-based learning. In this section, we examine how mobile technologies can be used to design learning activities to increase learners' motivation, interaction, and engagement in a blended course.

Personalized learning

For Chinese distance learners, mobile learning offers more flexibility and control, with e-books being a good example of those benefits. An advantage

of e-books over textbooks is that they can have added hyperlinks and animations to support learning, allowing learners to highlight, annotate, bookmark, resize texts, and change the background colour according to their needs and preferences (Matias & Wolf II, 2013). Most smartphones and tablets have audio or video applications that retrieve multimedia files, hence listening and speaking materials in mp3 or mp4 format can also be saved for personalized learning. Another approach to personalization is using mobile applications (apps). For example, the Audio News Trainer (Bárcena et al., 2015) was developed to build listening comprehension skills for distance learners. In the app, news is obtained as RSS from online websites, and learners can choose from among news items at different levels of difficulty to practise their listening skills. The Chinese Characters First Steps app also offers learners several levels of difficulty when practising recognizing and writing Chinese characters (Rosell-Aguilar & Qian, 2016). Another example of an app enabling personalized learning is Videos for Speaking (VISP), which contains a short preliminary test and helps users practise speaking the foreign language in their own time by recording audio descriptions of video clips (Moreno & Vermeulen, 2015).

Collaborative learning

Studies such as those by Troussas, Virvou, and Alepis (2014) and Ilic (2015) show numerous benefits of mobile collaborative learning. Learning activities can be designed with mobile web 2.0 technologies, advanced internet-based services and applications that enable users to communicate, create, and share information in various formats including text, audio, and video. Web 2.0 applications available in China include social networking sites and video sharing sites, such as WeChat, QQ, WeiBo, and Youku. Using these social tools, teachers can establish a mobile community for distance learners to exchange ideas in the target language. Community members may upload pictures and videos that they have generated using built-in cameras from their mobile devices; for instance, they can share the content they have recorded at a trade fair so that other learners can interact with it by viewing it and commenting on it. Tutors may set a collective task (e.g., digital storytelling in English) for the participants to complete collaboratively.

Situated learning

Mobile contextual learning activities can be designed to enable students to learn and use the foreign language in real-life situations. Location and context-aware technologies, including Global Positioning system (GPS), Radio Frequency identification (RFID), and Bluetooth beacons are used to locate learners' position and contextualize learning. Learning materials are

delivered to the learners based on their physical surroundings or communicative contexts (Chen & Chou, 2007; Kukulska-Hulme et al., 2015). Distance learners can benefit from such situated mobile learning activities; for example, when working with a sales representative in a foreign trade negotiation, they may utilize speech recognition software for translation or vocabulary prompts. This type of communication support would be delivered to them based on the context in which they are interacting.

Game-based learning

Game-based learning activities are designed on the premise that players need to learn, memorize, collaborate, explore, or obtain additional information in order to progress further in the game. They incorporate fun and enjoyment into learning, aiming to create immersive, meaningful, motivating experiences (e.g., Hwang et al., 2016; Perrotta, Featherstone, Aston, & Houghton, 2013). Game-based learning also promotes authenticity, self-reliance, and autonomy through experiential learning (Perrotta et al., 2013). Augmented Reality place-based mobile language learning games (e.g., a scavenger hunt) are context-dependent and enable learners to practise and learn the foreign language in augmented real-world settings. Context-independent mobile language games or simulations are also important learning activities for preparation, revision, or focus upon a particular objective or competence (Palalas & Hoven, 2016) .

Communication design

A study of distance foreign language learners in China showed that the majority of the participants perceived insufficient communication with teachers and peer students to be the main difficulty in distance learning (Zhang & Cui, 2010), which suggests that more opportunities for communication should be part of the blend. A socio-cultural approach to learning uses the concept of scaffolding as a metaphor to explain the role of a more knowledgeable peer in learning and development processes (Vygotsky, 1978). Various facilitative tools and strategies can be used in the scaffolding process, such as cooperative learning, which promotes teamwork and dialogue among peers, concrete prompts, questioning, coaching, cue cards, modelling, and many others. Thanks to mobile socializing tools, such as QQ, Skype, WeChat and microblogs, it is possible to apply a scaffolding strategy effectively in networked distance-learning environments. Ozan and Kesim (2013) have provided an overview of how communications might be designed to enable learners to get opportunities for timely support:

- Instructional scaffolding: support for learning in a networked mobile environment;

- Social scaffolding: support for learners to interact effectively in a network;
- Technical scaffolding: support to assist learners to use technological tools; and
- Managerial scaffolding: support to help learners to manage their educational process.

Mobile learning incorporated into a blended learning solution challenges educators and their institutions to rethink their current learning design practices and ways of communicating. To get a better idea of how m-learning would be received as part of a blended learning approach, it was decided to survey students at the Open University of China and to get instructor and learner feedback by undertaking a pilot project. These activities are reported in the following sections.

Student survey at Open University of China

The Nanhai Experimental College of the Open University of China (NECOUC) is planning to incorporate mobile language learning into its blended courses for learners accessing them at a distance. NECOUC, located in Nanhai District, Foshan City, Guangdong Province of China, is an adult higher education institute that offers open and distance education under the direct leadership and guidance of the Open University of China. To gather background information that will help with planning mobile learning at NECOUC, a questionnaire survey was conducted in early 2017 to find out about:

- Chinese distance learners' ownership of mobile devices;
- Whether they are using their mobile devices to support learning;
- What learning resources, support, and training they may require;
- Any perceived barriers or concerns about mobile learning;
- Their attitudes towards the possible integration of m-learning into their distance courses.

The questionnaire was distributed online to distance learners enrolled at the NECOUC and completed on a voluntary and anonymous basis. Any student could complete the survey, not only those who were studying languages. The website link to the questionnaire was embedded in a message sent to the learners via QQ, one of the most popular messaging and socializing tools in China. Distance learners at NECOUC interact with classmates and friends via QQ on a daily basis, and they have also been using QQ to receive teaching

and exam notices and support from their tutors. There were 201 usable responses to the survey, of which 80.1% were from female students and 19.9% from male students. Respondents were generally young, with the largest group (66.9%) being under 25, although there was a spread of ages right up to the 40s and 50s. The respondents may have been already more comfortable with online learning or mobile devices than other students (non-respondents), but that is not known.

Nearly everyone reported that they had a smartphone; a much smaller number had tablets. Among those who had used their mobile devices for learning, nearly three-quarters had used synchronous online chatting. There were also some who reported experience with collaborative learning; this encompassed sharing resources and posting on social media. Close to one-third of respondents reported that they had used a mobile app for learning. A considerable number of respondents expressed need for guidance on how to find appropriate learning resources, socialize with peers for learning purposes, and get technical training or support. There were some concerns about the costs of mobile internet connectivity and apps, and the impact on levels of concentration in learning, as well as security and privacy issues.

Overall, many respondents were positive about the suggestion of participating in an online community of learners to exchange ideas, and to share interests and reflections with their peers. When asked about their training requirements and preferences pertaining to mobile learning methods and techniques, many of those who responded mentioned need for both "online learning plus face-to-face tuition." These results seem to indicate, based on the sample, that the majority of students at NECOUC would be happy to embrace elements of online, social, and mobile learning. The results also suggest that a blended approach would be preferred in some situations, a suggestion which should be further explored. Although the survey did not focus on language students (there are not sufficient numbers for a survey targeting only those students), the preliminary findings give a valuable and encouraging indication of students' current habits and views. A detailed report on the survey and its findings will be the subject of a separate publication.

Before the overview of design principles pertaining to the blended language learning courses supported with mobile technologies is presented, a closer look at the larger context of this project is offered in the next section.

Mobile learning pilot program

The Open University of China is currently promoting the establishment of a "talent cultivation mode" featuring an integrated network of core courses; teaching management and teaching teams; as well as learning spaces, assessments, and support. To this aim, the university has developed a mobile learning platform, the Guokaimodeng (国开魔灯) App, to help create a ubiquitous open learning environment that integrates web-based learning, face-to-face lectures, and mobile learning. Using the Guokaimodeng App, the learners can access online courses on the Guokaixuexiwang platform and complete the following learning activities:

a. View course materials, such as pre-recorded micro-lectures;

b. Complete online simulated tests;

c. Submit assignments;

d. Receive school administration and teaching affairs notices;

e. Communicate with online tutors.

Instructional designers and tutors at local open universities around China are encouraged to develop and design mobile learning materials and activities for the online courses on Guokaixuexiwang. In the context of adopting blended learning for Chinese distance learners and embracing the ever-evolving digital learning environment, Chinese open educators are becoming increasingly interested in using mobile interconnectivity technologies to enhance their teaching. The Open University (Nanhai) strives to play an exemplary role by experimenting with mobile learning and teaching to accumulate experiences and lessons that may be learnt from other open universities around China.

In March 2017, the Open University (Nanhai) chose several courses for its mobile learning pilot project. Tablets were handed out to distance learners in the 2017 spring term courses. After one term of experimentation, a summary of key challenges identified by students as reported by tutors participating in the project is as follows:

1. The Guokaimodeng app was not adequately developed, hence some students would choose to finish their learning tasks on a desktop computer.
2. Learners did not want to watch lectures on mobile devices in places where free WiFi was not available.
3. The level of motivation to learn with handheld devices was low.
4. Some learners preferred to use their own smartphones instead of the tablets handed out by the school.

5. Tutors were not familiar with teaching with mobile devices and did not know how to bring any tangible benefits to their students through mobile teaching.

Overall, the m-learning activities seemed to focus merely on content delivery and knowledge consumption — mobile learning of the first generation. The learning tasks were limited to viewing course materials, completing small quizzes and tests, and discussing a given topic in the online course forum (synchronously or asynchronously). There was no collaborative learning involved, not to mention contextual situated mobile learning. One of the key challenges observed in the pilot was that both learners and teachers lacked the expertise to make use of the affordances of mobile technologies. Web 2.0 technologies, such as Wikis and microblogs available on Guokaixuexiwang, were rarely used by either tutors or learners. There is an urgent need for professional development concerning m-learning design and guidelines that can be used by teachers, instructional designers, and students. To leverage the existing knowledge in the design of m-learning in the reported blended learning context, relevant design principles had to be identified. The key mobile learning design principles have been distilled and are presented below.

Design principles and strategies

As noted above, in order to advance the adoption of m-learning within blended learning in distance education in China, there was also a need to review the range of mobile leaning design principles that have been proposed and discussed in the literature. No single learning theory can fully describe or support learning in a mobile context (Vavoula, Pachler, & Kukulska-Hulme, 2009; Pegrum, 2014). Herrington, Herrington, and Mantei (2009) recommended that to improve the learning experience, instructors take a design-based approach that focuses on real-world problems. The selected principles presented below are tentative and not exhaustive and are meant to serve as a high-level guide rather than a recipe for success. They are presented as being particularly relevant to educators who want to design effective and efficient MALL resources and activities for blended language teaching in distance education in China.

Principle 1. Design to meet learners on their terms (Kukulska-Hulme & Traxler, 2013).
MALL is essentially a learner-centred approach to language learning that calls for a learner needs analysis as an important component of instructional

design. Distance learners will have differences in learning preferences, comfort levels when learning in a public or a private space, and mobility patterns. They also have preferences and habits with regard to the technologies and tools that they use in everyday life, for work, informal learning, social networking, and communication. These differences and preferences will influence how long it takes for distance learners to adapt to learning on mobile devices when following a formal curriculum. Mobile language learning tasks that are creation and communication oriented require a higher level of linguistic communicative competence than those that take a content-based or tutorial approach (Dudeney & Hockly, 2016). Designing to meet learners on their terms means accommodating differences and preferences and meeting learners' requirements.

Principle 2. Design to make full use of technological affordances. Affordances should be directly connected in a principled way to second language learning research and theory (Stockwell & Hubbard, 2013). For example, sound/speech recognition, and audio/video recording functions cater to creation and communication focused MALL tasks as they clearly facilitate language input and output via mobile devices. Mobile and non-mobile technologies may need to be blended to build a ubiquitous learning environment as some learning activities call for cross-platform support to get the best learning outcomes (Herrington et al., 2009). MALL activities may also take advantage of familiar social media already used by the learners for other everyday purposes, for example WeChat in China, to extend opportunities for social learning.

Principle 3. Chunk resources to learn incrementally.
A mobile version of language course materials can be topic- or theme-based and should be kept short and succinct. When possible, longer tasks or activities should be divided into smaller, coherent chunks (Brown & Haag, 2011; Elias, 2011; Dillard, 2012, Yates & Palalas, 2016). Interruptions, which will occur predictably in many mobile environments, should trigger as little backtracking as possible when students are returning to a task (Stockwell & Hubbard, 2013; Yates & Palalas, 2016). Chunking has been standard advice across mobile learning reports and guidelines for many years, but the range of resource types continues to grow. The development of multimedia content and augmented reality (AR; Godwin-Jones, 2016) may prompt reflection on how short activities based on AR could be offered within blended learning.

Principle 4. Present learning resources in ways that help reduce cognitive

load and facilitate information processing.

It is not uncommon that adult distance learners display a high level of anxiety when doing a foreign language learning task, especially when it comes to speaking and listening. The presentation of learning resources on the small screens of mobile devices should be done in ways that reduce cognitive load and facilitate information processing. Using a conversational style in the interface design (Levert, 2006), or integrating a learning road map will help reduce learners' anxiety and sustain their motivation. The combination of texts, images, and video/audio resources should be carefully balanced to help learners observe the salient linguistic features and identify the communicative contexts in which the expressions, sentences or dialogues are typically used.

Principle 5. Push, but respect boundaries (Stockwell & Hubbard, 2013). When learners are expected to do some curricular tasks on mobile devices, instructors may find it necessary to send them supportive materials. For long term knowledge retention (e.g., vocabulary and grammar acquisition) or language skills practice, instructors may feel tempted to leverage spaced learning and send materials, notifications, and reminders to learners repeatedly at intervals (see Haag & Berking, 2015, for a discussion on spaced learning as a consideration for m-learning design). Though messages and notifications have the potential to prompt learners to action, they can also interrupt other more or equally valid activities, particularly in the workplace. One solution is to plan push events for particular times to allow learners some control over when they see them. Teachers can also incorporate RSS feed technology into their learning resources so that learners can subscribe to them and pull them in at their preferred time.

Principle 6. Integrate feedback into the learning process (Yates & Palalas, 2016).
Feedback plays a facilitative role in second language acquisition. As an essential element of well-designed MALL resources and activities, mobile-enabled feedback functions as a language teacher helping to improve language accuracy and fluency, as a motivator supporting students in completing learning tasks and as a facilitator guiding students along the learning journey. Learners may get automated feedback, such as answers in an e-book or widget, or pop-up instructions on how to complete a task. Feedback may also come from a teacher or peers who form a mobile learning community via mobile communication and social networking tools. When designing the feedback, it is important to pay attention not only to the content

of the feedback message, but also its format (oral, text, visual, or multimedia) and the channel through which it is shared.

Principle 7. Look for contextualized m-learning activities (Herrington et al., 2009; Kukulska-Hulme & Traxler, 2013).

A great strength of mobile learning lies in its capability to support situated learning, including learning at work. Most open education distance learners in China (and many elsewhere) have a full-time job. They may have opportunities to use the target language they are learning, e.g., English, at work. Contextualization of learning can be very motivating as their performance at work will be supported and they will get a feel for how to use the foreign language in a real communicative context. Therefore, instructional designers are encouraged to find opportunities to design m-learning tasks to support situated and authentic language learning, at work or in daily life. With the advancement of context-aware applications, mobile learning activities can also be designed to detect aspects of a learner's immediate context (e.g., location, time, interests) to deliver context-sensitive learning materials and learning support (Liu, Kuo, Shi, & Chen, 2015).

Principle 8. Offer guidance and training on how to use mobile technologies for language learning.

Learning a foreign language is a challenging task for most adult distance learners. They need to avoid struggling with the technology as well as the language. Most of the preceding principles incorporate elements that are controlled by learners - teachers and developers may acknowledge them, but ultimately the implementation is in the hands of the mobile user. The design of mobile devices may make them intuitive to use, but using them for language learning is not. Learners have reported playing out learning activities designed by researchers differently from what was expected as they engage with an environment outside of the classroom (Kukulska-Hulme & Traxler, 2013). Training in the use of mobile web 2.0 technologies for both individualized and collaborative learning will empower teachers to choose appropriate technologies and make effective use of them.

Recommendations

In terms of recommendations for instructional or learning design, there are several key points to note:

- Course contents in the online LMS will have to be altered or redesigned as small, self-sufficient units. They should be designed in multimedia

forms where necessary and possible, and consideration needs to be given to how students will get feedback.

- Collaborative and situated reading, writing, listening, and speaking activities can be designed for physically separated distance learners to promote their interaction, co-construction of knowledge to solve problems and reflection on language use, to foster a sense of community and to connect learning to authentic communication challenges, for example in relation to their work and other relevant contexts.

- Games can be used to create more motivating learning experiences and a wide range of tools can be deployed to scaffold learners and support them in communication.

- It is important to bear in mind the busy lives of distance learners and not overburden them in terms of cognitive processing demands, time requirements, or additional costs. Allow for flexible task completion, for example, the ability to switch between mobile and online platforms.

Results of the questionnaire survey of distance learners at the OUC (Nanhai) suggest that mobile learning will fit well with existing smartphone ownership and social online communication practices. However, the Mobile Learning Pilot Program also showed that there are challenges to overcome, including a need for professional development or training for the instructors so that they can use mobile learning to bring "tangible benefits" to their students. This ties in with Hilao and Wichadee's (2017) suggestion that "It is the teacher's duty to make students see benefits from [mobile learning] tasks" (p. 76). New learner needs are also expected to arise, such as how to manage the vast amount of learning resources they now have access to, how to use the mobile social technologies to assist their learning and build a supportive learning community, and how to manage their networked learning process. Instructors, support staff, and a community of peers need to be ready to help.

Conclusion

In this chapter, we have shared some findings from a collaborative project between The Open University, UK, and the OUC (Nanhai), which aimed to consider how MALL could be integrated in a blended foreign language curriculum for distance learners at NECOUC. In a changing learning environment, teachers need to rethink their educational practices, design activities, and support systems to help distance learners take advantage of their smartphones and other mobile devices.

These are early days for mobile learning adoption at the OUC (Nanhai) and many other open and distance education institutions across the world.

Informed by the findings of this project, further discussions should be held at various levels of the organisation, including its leaders and managers, teachers, technical developers, and support staff, books and learning resource providers, and last but not least, the distance learners who stand to benefit from mobile learning as part of their blended learning experience.

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Glossary of Terms

context-aware application – a mobile application (e.g., on a smartphone) that can recognise aspects of a user's current context (such as location, time, environment, interest), and can deliver learning content or an activity appropriate to that context.

microblog – a social media site to which a user makes short, frequent posts.

micro-lecture/ mini-lecture – a short lecture, usually in the form of a video or audio clip or podcast.

push (technology, notification) – push technology enables a notification (e.g., a message) to be displayed on a mobile device without being specifically requested by the user.

scaffolding – the use of a temporary framework or a form of assistance to support a learner. The scaffold is taken away once the learner is able to master a task.