Emerging Truths in Mandarin Mobile-Assisted Language Learning

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Abstract. Mobile devices and technology integration in teaching and learning are becoming common tools in education. However, not all technology-enhanced instruction is structured in the same manner. At the same time, mobile learning is a comparatively new occurrence and the theoretical fundamental is presently under development. Thus, this paper presents a comprehensive pedagogical view among the current Mandarin mobile learning practice to the existing MALL framework and principles. The researcher cum instructor conducted an individual Mandarin mobile instruction via smartphone applications. The results from the implementation were qualitatively studied and analysed to evaluate as to what extent the Mandarin practice has kept up with the existing MALL pedagogical framework and principles. The emerging truths found in the results that might be impactful for Mandarin mobile learning were pedagogical skill, situation task content, continuous reflection, readiness, and native speaker.

Keyword: Mobile-Assisted Language Learning, Mandarin mobile foreign language, Pedagogical framework and principles.

1. Introduction

Mobile technologies have emerged and thrived rapidly in every part of the world. The mobile technologies are considered a new form of education approach that influences people in learning a language. Education experts have agreed with the impact of technological innovations on education. The school and universities have endorsed the responsibility to employ technological innovations in practice and train students on mobile innovations. In fact, millennium students highly embrace this growing new mobile technology. Thus, we as educators and researchers have no choice but to adapt ourselves to employ mobile learning in our teaching and the development of instructional materials. Today the economic factor
The instances of advanced technology like blended texts, hypertext, instantaneous links, moving and still images, sound, colour, multidirectional referencing and the mobility features are the new tools in learning Mandarin as a foreign language. Mandarin foreign instruction is moving towards the management of an array of readily accessible unmediated language input resources. And teaching Mandarin with innovation becomes a challenging task. Literature shows the effectiveness of a mobile integration which lines up to the worldwide demand was the commitment of education systems in promoting innovation; and educators in diversifying pedagogy, to understand students, teachers, and the implied meaning for the teaching of new kinds of communication itself in the new transnational spaces and discourses [1]. In short, Mandarin instructors encounter pedagogical challenges in a different context, content, technology, and students. Different educators may structure different technology-enhanced instruction at dissimilar places with diverse learners. At the same time, mobile learning is a new happening and the theoretical fundamental is currently under development. In addition, [2] discussed that there was a call for urgent development especially in terms of innovation for the internationalized curriculum of Chinese language teacher education and situated teacher education program. Thus, this paper presents a comprehensive pedagogical view among the current Mandarin mobile learning practice to the present Mobile-Assisted Language Learning (MALL) pedagogical framework and principles.

2. Literature Review

Mobile learning (m-learning) means learners can access the material anywhere and anytime through technology [3]. Mobile learning is also be defined as a learning environment based on the mobility of technology, mobility of learners, and mobility of learning that augments the higher educational landscape [4]. The latest view from Moghaddas [5], MALL is a subcategory of both m-Learning (mobile learning) and computer-Assisted Language Learning. It is a two-way process with its mobility feature to aid learning by any portable devices handheld technology to reduce deficiency of learning places. The use of mobile technology includes hand-held minicomputers, cameras, notebooks, cell phones, MP3 and MP4 players, PDAs, data storage devices, iPhone or iPad. In some of the other research, m-Learning is the delivery of learning content to mobile devices [6,7]. In the early introduction, most of the researchers defined m-learning happens not at a fixed, predetermined setting and when the learner gets benefits from the advantages offered by mobile technologies’ [8,9]. According to [10], portability, social connectivity, context-sensitivity, and individuality are the special features provided by mobile devices which desktop computers might not have. The famous scholars, [11] defined m-learning that certainly concerned with learner mobility, in the sense that learners can experience the learning process wherever they want and not in a tightly delimited physical setting. In the year 2013, Mobile-Assisted Language Learning is defined as the use of “mobile technologies in language learning, especially in situations where device portability offers specific advantages” [12]. Until now, this type of learning is often termed as m-learning and presented as learning using mobile devices that could occur anytime and anywhere.

Regarding the technology tools utilized in education, [13] in the current trends and pedagogical implications reviewed that the studies on listening supporting technologies including the study which utilized audiobooks [14], mobile e-books with multimedia features [15, 16], videos with caption filtering mode [17] and integration of audio players such as iPods and MP3 players [18]. While the studies in speaking supporting technologies consisted of the studies of grammar with a voice recording function of mobile devices [19] with listening with voice response system [20] and video recording [21] which made
speaking practice possible. However, most of the studies explored the use of technology regarding listening and speaking skills in language learning were discussing the use of mobile technology itself and lack of explanation in pedagogical aspects [22]. The use of technology alone would be insufficient to foster learning without the adoption of appropriate pedagogies [23]. Therefore, appropriate MALL pedagogies are needed in teachers’ teaching practice in supporting the language learning to enhance students’ achievements, and this will enhance students’ learning engagement in the classroom and further developed by classroom instructors with appropriate training in pedagogy no less than instructional technology [24].

In learning Mandarin, most of the researches were studying on developing and integrating the advance feature of mobility to help learners to overcome the difficulties of the Mandarin language. For instance, there were studies on the importance of the Mandarin language and the marriage of computer and mobile networks provides opportunities for Mobile Social Software (MoSoSo) and Social Network Service (SNS) in supporting social networking activity anytime and anywhere [25]. As a result, hundreds of Mandarin learning platforms, tools, and electronic learning materials, have been developed such as: Go to China Mandarin Platform Advance, StepByStep, Chinese Master, and so on. The other examples were like the Mobile Application Services for MALL [26] that to be used in teaching implementation uses are Mobile Social Networking/ Mobile Social Software especially the Social Network Service applications, such as Facebook, Twitter, YouTube, or Flicker, Mobile Podcasting/Mobilecast. The Course Management Service, a Course management service like Poodle [27] and Automatic Speech Recognition, a voice-recognition software, such as Bing, Google Voice, Vlingo, or Siri Assistant were also functioned as automatic hands-free task processing engines [26]. To summarise, the development and improvement of internet applications emerged is an on-going process and to integrate the appropriate applications depends on the mobile devices hold by the learners and the teacher wisdom. In short, there are various types of applications appeared which can be pedagogically used to aid Mandarin instruction by the teacher.

In the aspect of pedagogical, [28] has explored the multiple entanglements of students, teachers, and smartphones in overlapping networks through the theory of actor-network theory (ANT) to see how these human and non-human assemblages are influencing and changing pedagogical practices and the significance for education. However, it was often found that the existing teaching systems of e-Learning are lack of intelligence in adjusting the curriculum contents based on the learning situation, and most of them cannot make learning happens anywhere and anytime. Besides, [1] highlighted three areas of teacher knowledge that are needed: understanding of learners, understanding of teachers themselves, and understanding of resources available which offer new opportunities to the nature of innovative pedagogies.

Regarding mobile pedagogy have been done by [29], the approach of the mobile pedagogy in language teaching is based on the belief that teachers and learners are the active participants in making and shaping language learning. Active learning refers to an educational approach in which students are encouraged to engage with the learning material through activities. In language teaching and learning, the active participant refers to learners who take responsibility for their learning meanwhile the instructors enable this and in which it has long been considered the philosophy of good language teaching. In mobile pedagogy, students are to use their mobile devices which enable the implementation of active learning philosophy. Multi-tasks can be done including create and share multimodal texts, communicate spontaneously anywhere and anywhere. Also, various activities can be done such as capturing language outside the classroom, analysing language production and learning needs, constructing artefacts and sharing them with others, and providing evidence of progress gathered across a range of settings in which a variety of media are utilized.
Figure 1 shows a pedagogical framework for mobile learning from the writing of [29]. The listed items in the framework consisted of ‘Teacher wisdom’ which mentions the teacher’s role and experience in enacting pedagogy. ‘Device features’ refer to the advanced mobile technology which enables multimodal communication, collaboration and language rehearsal. ‘Learner motilities’ means that learning can happen at any place and times in many contexts and cultural settings based on the need and pace of the learners either in or outside the classroom. Lastly, the ‘Language dynamics’ refers to the dynamic of language especially because of the rapid advancement of communications technology which changes continuously. The authentic learning materials bring the target language alive from books to stimulate ‘real-life’ language use and practice. These learner-generated contexts were based on the existing syllabus or curriculum. The four important ‘connecting concepts’ that link the four spheres are ‘Outcomes’ which focus on how the MALL activity improves language proficiency and other outcomes. The ‘Inquiry’ refers to the relations exist between MALL activity and ever-changing contexts of language use. The concept of ‘Rehearsal’ mentions elucidating more activities based on the circumstances and resources available. Lastly, ‘Reflection’ means the thought of learning from the activity designed.

Besides, the discussion on physical, pedagogical and psycho-social based on many MALL research, [30] have drawn out 10 principles as guidelines for mobile pedagogy. These principles aim to guide and control the repetition of mistakes and exceptions with each new repetition of products, and to maximize its benefits besides additional guidelines of the specific language teaching and learning approaches employed by the users. The researchers have suggested 10 principles as Distinguish the affordances and limitations; Limit multi-tasking and environmental distractions; Push, but respect boundaries; Strive to maintain equity, Differences of language learners; Existing and cultural usage; Short and succinct of activities and tasks; Concept of mobility; Guidance; as well as Recognize and accommodate multiple stakeholders.
3. Research Methodology
This current study was based on action research of an individual Mandarin teaching using mobile applications. The participants who participated in the study were the teacher cum researcher and a class of her students. Three categories of smartphone applications that were used for the intervention included Dictionary-Based application, Web-Based Applications and Socialization application. The mobile apps were used as learning tools to assist students in learning Mandarin. Then the data from students’ learning log, teacher self-reflective journal and focus group interview were analysed in a qualitative manner. The themes regarding pedagogical practice (pedagogical skill, situation task content, continuous reflection, readiness, and native speaker) were carefully explained from the perspective of a well-referencing pedagogical MALL framework [29], and principles [30]. It is hoped that the information from this perspective is able to give some insights into promoting technology integration pedagogically by self-interpretation.

4. Result: Pedagogical Skill, Situation Task Content, Continuous Reflection, Readiness, and Native Speaker
The main finding showed that the teacher’s pedagogical skill was the main factor in ensuring the effectiveness of implying technology tools in the lesson. Next was the reflection of ‘on-action’ and ‘in-action’ as it needed for a teacher to find solutions for the emerging issues during the lessons. This was proven when the researcher cum teacher needed to adjust self-teaching to suit the different needs of her students. The result showed that the students needed time to absorb new experiences as every student was having divergent cognitive abilities, language levels, and learning styles. The other finding was on students’ oral performance that was improved by recording numerous situation video tasks during the instruction. The qualitative data showed the students were able to produce communicated sentences during their spontaneous speech with native speakers and produce meaningful dialogues in their oral presentation and assignments. This study also showed some deterring factors in employing MALL including the functionality of a smartphone and the internet as the participants encountered problems in accessing, downloading and uploading related materials. To solve the emerging problem, the teacher has planned some alternative solutions such as sharing smartphone, using paid data, making use of computer room or having flipped classroom activities to ensure the students make use of the apps. Besides learning via mobile apps, they also learned with the aid of mobile devices for communication, social and other purposes, interacting with other native speakers, listening to audios, watching YouTube, and other language activities. Even though they preferred this way of learning, they have also suggested that more diversified language activities, for example having a dialogue with native speakers, learning through music and movie, and etc.

5. Discussion and Conclusion
The comparison based on the eight terms from the MALL framework including teacher wisdom, device features, learner’s mobility, language dynamic, outcome, inquiry, rehearsal, and reflection were conducted in this study. In the aspect of ‘Teacher Wisdom’, the teacher has taken the facilitator role and was able to adjust self-pedagogy in ensuring sense-making learning. In the facet of ‘Device Features’, students were able to use the stated apps to enhance their learning. However, the deterring factors showed that the alternative plan was needed to well benefit the students with the advanced features of devices and apps. In ‘Learner’s Mobility’, these MALL lessons could be carried out at any place and at any time either in the class or outside the class. Lastly, in the aspect of ‘Language Dynamics’, this study was still lacking authentic language activities using the advanced feature of mobility as the students have suggested to carry out more language activities during the intervention. Nevertheless, the lessons carried out in this study has tried to bring the target language alive from books to stimulate ‘real-life’ language use and
practice by recording more situation-based videos and having more conversation with native speakers at learner-generated contexts based on the existing syllabus. In summary, the connecting link works of outcome, inquiry, rehearsal, and reflection looked like the four steps of action research [31]. All the learning activities need to be well-planned and integrated with the aspects which encompass students, teacher, technology, and language. The process of inquiry is equal to the process of in-action and on-action reflection done during the instruction to seek solutions for emerging issues. Then, rehearsal is like the teacher’s action that is to ensure students’ learning occurred by employing the feature of mobility. Lastly, reflection is the act of thinking to tailor a self-pedagogical practice to suit students’ needs.

In short, this study has indicated that the teacher is the significant person who takes the role to adjust the plan activities to suit the need of content, technology, and students in safeguarding the effectiveness of MALL lessons. The entire picture of the finding from this study is summarised in figure 2 below.

![Figure 2. Teacher’s role in Mandarin MALL](image)

In Figure 2, the teacher’s competence plays an essential role in ensuring the effectiveness of the Mandarin MALL lesson. The teacher needs to well-plan the technology integration instruction to make certain that the students obtain maximum benefits from the features of mobile apps in acquiring the language taught. In the Mandarin MALL lesson, students learned through intra-psychological and inter-psychological manner under the theory of constructivism that was proposed by [32]. Students also learned through the connectionism way that was proposed by [33].

While comparing to the exiting principles [30], three other current truths were drawn out from this study regarding the Mandarin pedagogical practice. The suggestions were: Not delivering content but problem-based learning; Aware and reflective during the lesson; and finally, More conversation with native speakers. To sum up, the Mandarin instructor needs to consider a set of 13 guidelines to make a Mandarin MALL lesson in yielding impactful learning.

The guidelines are Compatibility of the applications with the activities; type of smartphones and strength of the internet; Limit multi-tasking; Drilling for a particular task (deep learning a task/topic); Alternative plan for unknown problem; Diversify the MALL activities suite the students’ learning preferences; Existing usage; Short and succinct;
Mobility; Well-planned and guided directive with supportive feedback; Get help from related person to enable MALL lesson; Not delivering content but problem-based learning; Aware and reflective during lesson and More conversation with native speakers.

In summary, the researcher cum practitioner found that there were several pedagogical aspects that need to be considered for a Mandarin MALL integration instruction. A teacher is required to be well-prepared for the self-knowledge of content, students, technology, and pedagogical skill while integrating MALL to suit the need of the millennium students. The curriculum hence has to be restructured to produce effective learning. The in-action and on-action reflections were essential to find solutions for the teaching adjustment. The continuous reflections, therefore, are able to encourage self-regulated learning; to enable the teacher to enhance own pedagogical practice in addition to enhance students’ learning achievement. Finally, human’s readiness and flexibility are called for to be taken into consideration in making a Mandarin lesson via mobile apps lesson a success.

6. Reference
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