Mobile Assisted Language Learning APPs for the Chinese Classroom
(中文语言课堂里的手机辅助学习应用)

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Abstract: The development and integration of new mobile devices and applications have changed our daily lives and learning styles. It would be helpful for instructors to be aware of both the benefits and challenges of adapting mobile assisted language learning in their classrooms. This review explores some of these opportunities. It will present current and newly innovated language learning applications to demonstrate the different features in various mobile learning apps, including dictionary, flashcard, pronunciation, writing, and situated learning. The emphasis of this paper will be on the Chinese language. It is suggested that instructors be aware of the needs of their students/classes with app evaluation rubrics and strategies when adapting mobile learning in their teaching.

摘要: 伴随着手机跟手机 App 的普及跟多元化，人们的生活与学习型态也跟着改变。语言老师们应了解手机应用教学所带来的益处跟挑战。这篇文章将介绍一些中文教学 App 并将其依照功能来做分类: 字典，字卡，拼音，写字，课程，以及影音教学。在选择语言教学 App 的时候，老师们可以运用 Rubrics 及教学策略来挑选最合适的 App。

Keywords: MALL, Mobile learning, language learning, rubrics

关键词: MALL, 手机学习，语言学习

1. Introduction

Mobile technology has become an essential element of our daily life. It has changed our lifestyle, and more importantly, our learning style. The way students communicate and gather information relies heavily on the use of mobile devices. Rather than discouraging students from using their cell phones in the classroom, instructors should find a way to adapt mobile devices in class, and to prepare students for real world learning experiences (Pacansky-Brock, 2013). The cell phone demographic data show that 91% of adults own a cell phone and 72% own a smartphone in the United States. In South Korea, 100% of adults own a cell phone and 88% own a smartphone (Poushter,

2016). More than 90% of users spend an average of two hours on the phone daily in the USA (Chaffey, 2015). The Cisco white paper (2016) shows global mobile traffic growth is 74% and average smartphone usage grew is 43% in 2015.

One of the new learning trends mentioned in the 2016 NMC Horizon Report is to bring your own device (BYOD), i.e., students bringing their own laptops, tablets, or smartphones to the classroom. Students can use devices that they are already familiar with instead of computers provided by the school. In 2014, more than 42% of US colleges have adapted the BYOD strategy. Some other advantages of BYOD including more innovative ways for instructors to create contents and assignments, and connecting the learning experience to the students' real lives (Johnson, Adams Becker, Cummins, Estrada, Freeman, & Hall, 2016).

2. Mobile Assisted Language Learning (MALL)

Mobile assisted language learning (MALL) provides the benefits that students can learn anywhere and anytime with their mobile devices. The advantages of mobile learning includes: 1) accessing information quickly, 2) communication & content collaboration, 3) interact with course contents in various ways, and 4) situated learning (Gikas & Grant, 2013). Students in the mobile learning groups showed significant improvement in the attitude survey and post-test results (Martin & Ertzberger, 2013). Other studies (Chang & Hsu, 2011; Kim & Kwon, 2012; Rahimi & Miri, 2014; Soleimani & Mustaffa, 2014) also suggested that students in the MALL group demonstrated higher achievement and motivation. In Ally, Schafter, Cheung, McGreal and Tin's (2007) study on ESL and MALL, over 90% of the participants appreciate the flexibility of mobile learning.

Kearney, Schuck, Burden, & Aubusson (2012) explained the pedagogical perspectives of mobile learning in three theories: personalization, authenticity, and collaboration. The ability to personalize your learning journey, to learn with real-world materials, and to interact with peers.
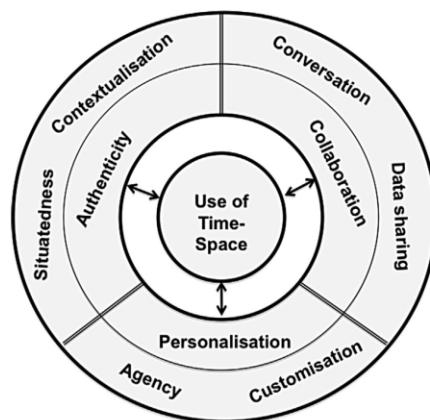

Figure 1: Framework comprising three distinctive characteristics of m-learning experiences, with sub-scales. (Kearney, Schuck, Burden, & Aubusson, 2012)

Although the above-mentioned studies showed positive results of mobile assisted learning, there are also limitations that we should keep in mind. Gikas & Grant (2013) observed these challenges in their study: 1) anti-technology instructors in other classes, 2) device challenges, and 3) devices as a distraction. The challenge came from both user and device. McQuiggan, Kosturko, McQuiggan, and Sabourin (2015) also listed several possible limitations in mobile learning: 1) differentiated access to device and internet, 2) monitor learning progress and usage, 3) student attitude, 4) mobile device shared in group, 5) limited physical attribution. They suggested that mobile learning lecture design should be combined with other learning theories for improvement. To best facilitate meaningful learning using the above-mentioned devices in the classroom, it is important for the instructor to diversify teaching and presentation methods to accommodate the varied needs of a diverse study body, and their learning styles.

3. Chinese Language Learning Applications

Language learning applications have been developed and made available in different languages and on different devices (iOS or Android system). The main categories of the Chinese language learning applications are: structured lessons, dictionary, flashcard, game, pinyin, writing Chinese characters, and using video lessons. The price ranges are from free to about $30 per month. There are more than 40 Chinese language learning applications currently available. The developers of these Chinese applications came from both educational institutions and commercial companies. The levels of these applications are mostly for beginner to intermediate levels.

Below (section 3.1 to 3.6) is a list of Chinese learning applications with varied functions.

3.1 Chinese-English Dictionary

The Chinese-English dictionary applications allow users to search Chinese characters via pinyin, character or English. It provides the English definitions, pinyin, sample sentences, and audio pronunciation. Hanping, Pleco, and tranchinese also provide the animation for learning the stroke order.

Name	Price	System
Hanping	Free	Android
Pleco	Free	iOS, Android
trainchinese	Free	iOS, Android
English Chinese Dictionary by Xung Le	Free	iOS, Android

3.2 Flashcard

The Flashcard applications are designed in two different ways. Applications like Anki and Quizlet provide sample flashcard sets and instructors or learners can create their own flashcard sets as well. Other applications come with various Chinese flashcard sets that are designed thematically or based on language levels.

Name	Price	System
Anki	Free for Android; $24.99 for iOS	iOS, Android
ChineseSkill	$0.99	iOS, Android
Chinese Flashcards	$2.99	iOS
CS Zika	$2.99	iOS
StickyStudy	$3.99	iOS
Learn Chinese by Brainscape	$9.99/month	iOS, Android
Quizlet	Free	iOS, Android

3.3 Chinese Pinyin

With pinyin applications, learners can practice different pinyin and tones anytime and anywhere they want. These are good tools for beginners or intermediate learners who would like to practice pinyin.

Name	Price	System
Pinyin Trainer	Free	iOS, Android
Standard Mandarin	Free	iOS
Pin Pin	Free	iOS, Android
Standard Mandarin	Free	iOS

3.4 Writing Chinese Characters

These applications are designed specifically for learning to write Chinese characters with animation showing the stroke order. Some dictionary applications also provide the stroke order animation. The difference of these applications is that participants can practice writing with fingertips on their mobile devices.

Name	Price	System
Chinagram	$1.99	iOS
Skritter	$14.99/month	iOS, Android
eStroke	$6.99	iOS, Android

3.5 Structured Lessons

These applications contain Chinese language lessons with English instructions. The lessons come with features like Flashcard, game, pronunciation; some applications also include practice for writing Chinese characters. One possible limitation is that most of these apps are designed for novice learners.

Name	Price	System
memrise	Free	iOS, Android
ChineseSkill	Free	iOS, Android
Hello Chinese	Free	iOS, Android
Chinese Characters First Steps	Free	iOS

3.6 Learning Chinese through Video

These applications are design for learning Chinese vocabulary through video clips with real world context. This means providing authentic context that reflect the way this learning will be used in real-life, which is one of the critical aspects of situated learning design (Herrington & Oliver, 1995). The video clips come with Chinese subtitles & pinyin. They are more suitable for intermediate and advanced learners.

Name	Price	System
ChinesePod	$29/month	iOS, Android
FluentU	$15/month	iOS, Android
Yabla Chinese	$9.95/month	iOS

You will be able to visit the websites by clicking the appropriate apps. This list will also show prices and which mobile platform these applications are best designed for. Instructors and students alike should be aware that the above-mentioned examples are but a few of the options available.

4. Applications Evaluation

According to Ozdamli & Cavus (2011), the five basic elements of mobile learning are: learner, teacher, environment, content and assessment. The most important element among the five is learner. Therefore, when evaluating a mobile learning app, learner should be at center of the design. Other important components for a good learning applications are instant feedback and the opportunity to retry (Ally, Schafter, Cheung, McGreal, & Tin, 2007) and providing supports and tutorials (Pacansky-Brock, 2013).

There are different evaluation rubrics designed for choosing the optimal educational applications for your classroom. One example is the Great App Checklist (McQuiggan, Kosturko, McQuiggan, & Sabourin, 2015), which list purpose, alignment (curriculum), pedagogically based, personalization, sharing, privacy, app citizenship, and access as evaluation criteria. In Vicent's (2012) Educational App Evaluation Rubric, he creates a likert scale rubric with categories like relevance, customization, feedback, thinking skills, usability, engagement, and sharing (data). The rubric created by Lee & Kim (2015) includes categories of teaching & learning, screen design, technology, and economy & ethics. These rubrics are designed for instructors to identify the applications that work best for their students' needs.

5. Conclusion

Mobile assisted language learning has a substantial impact on classroom activity and curriculum design. One common question is how to choose the right applications, another question is how to best integrate mobile learning in the classroom. There are several strategies for making mobile learning work: 1) provide professional development for teachers and administrators, 2) use data to personalize learning, 3) change instruction to facilitate mobile learning, 4) flexible policies on classroom cellphone use, 5) good quality learning applications (McQuiggan, Kosturko, McQuiggan, & Sabourin, 2015).

This paper lists twenty-five Chinese language learning applications in the categories of English-Chinese dictionary, flashcard, pinyin, writing Chinese characters, structured lessons, and video lessons. It should be mentioned that the list was generated in November 2016. Though current, new applications are being added on weekly bases. The twenty-five applications on the list are but a few of the options available.

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