SMARTPHONE APPLICATIONS IN LEARNING MANDARIN

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Abstract: This paper investigates the students' opinions towards the issue of smartphone applications in learning Mandarin and the influences on their achievements. This preliminary study utilized a quantitative research method. A survey is conducted to gather data through an adapted questionnaire whereby 75 undergraduates who are undertaking Mandarin language course students are selected using comprehensive sampling technique. In this study, the usages of smartphone applications and the students' achievement were carefully explored. It is discovered that the respondents enjoyed learning Mandarin using Dictionary Based (DBA) and Teaching and Learning Applications (TLA), and they found it is easy to use them. This investigation also shows that students have a generally favourable attitude towards the usability, effectiveness, and satisfaction of smartphone for MALL. However, their final results did not direct to positive improvement.

Keywords: Mobile-Assisted Language Learning, Smartphone Applications, Mandarin

I. INTRODUCTION

The rapid advancement of information and communications technology (ICT) have received a great deal of attention in the field of education. Nowadays, plenty efforts are put in developing alternative language learning tools using mobile advance technology. Mobile devices offer features of portability, social connectivity, context sensitivity, and individuality, which desktop computers might not offer (Chinnery, 2006) and they have made learning movable, real-time, collaborative, and seamless (Wong &Looi, 2011). The inevitable advance of mobile technology has changed the way we learn, communicate and live. Learning through these mobile technologies is defined as mobile learning (m-learning) (Turkle, 2011) or electronic learning (e-learning). The important contribution to the mobile-technology is that teenagers can perform learning easily (Kee and Samsudin, 2014) and the learning engagement can be doubled as the young learners are technological friendly (Oblinger, 2003) and digitally fluent (Prensky, 2007). In short, the advance technology and the smart learners promised learning opportunities in a meaningful way. The special features of mobility have integrated traditional learning with the inevitable advance of technology and make the education function better in both formal and informal setting. Being net learners and teachers now are having more chances to practice the targeted language nearly anywhere and anytime. However, the impact of smartphone as a learning tool in MALL pedagogical practice has not been studied widely. This study intends to investigate how the net generations in Universiti Malaysia Terengganu (UMT) use and view the smartphone usage in learning Mandarin and the influences on their grades.

II. LITERATURE REVIEW

Numerous studies have been reported on the use of mobile phones in developing language skills in the last few decades. Lu (2008) explored the use of short messaging service (SMS) and discovered that it has the capacity to contribute to enhancing language learners' vocabulary. Kiernan and Aizawa (2004) concluded that incorporating tasks which focus on meaning can enhance interest in learning a foreign language. Besides that, SMS is also can be used to motivate students to learn and enhance their vocabulary (Jolliet, 2007), enhance the efficiency of group learning and improve the quality of interaction (Lan, Y. J., Sung, Y. T., & Chang, K. E. , 2007). To sum up, plenty of programs of distant language learning were successful using different apps in mobile technology, which has successfully created a meaningful environment for students from different countries to practice their language and getting feedback instantaneously.

III. MALL IN LEARNING MANDARIN

The economic factor has made Chinese the most pursuit world languages to be learned. Plenty attempts have put into creating technology tools to ease Mandarin learning. For instance, Liu &Räihä(2008) postulated that an easy-to-use Chinese text entry is needed to support the high penetration of mobile phones and SMS among Chinese users and they have successfully designed two new solutions for Chinese pinyin text entry with a rotator as an input device. On the other hand, Al-Mekhlafi, Hu &Zheng (2009) initiated Context-Aware Mobile Chinese Language Learning (CAMCLL) for foreign students as a service guide when the students are out of school for their real world Mandarin practice. CAMCLL guides the students by informing them, through their mobile phones, suitable sentences based on the four contexts (time, location, activity, and learner's level). It is discovered that this approach has enhanced the Chinese language learning efficiency and effects for foreign students. Advancement of ICT and mobile technology has introduced a large number of programs or mobile applications in

learning foreign languages. Mobile learning games, play a vital role to enrich learners' vocabulary and improve their knowledge of Chinese characters. Tianet. al. (2010) adds that mobile learning games can play an important role in the Chinese literacy acquisition process since it provides learning in context.

IV. METHOD

Recognizing the effectiveness of smartphones, this study intends to explore the students' perceptions regarding the use of smartphones in learning Mandarin. The smartphone applications are carefully explored. This study utilized a quantitative research method which the data was gathered through an adapted questionnaire (Chen, 2013). The questionnaire comprised of 24 questions. 75 undergraduates who are undertaking Mandarin language course students from Universiti Malaysia Terengganu were selected using comprehensive sampling technique. Participants were 67 females and 12 males from two courses: Communicative Mandarin (3 credit hours – 20 students) and Mandarin 1 (2 credit hours – 55 students). The questionnaires were then distributed to all the Mandarin students in UMT in the 10th week of learning. Earlier, all participants were asked to download some Mandarin learning applications using their smartphones so they can use them in and outside of the class. The questionnaire was distributed to the students in Week 10 of the semester after they have some knowledge about Mandarin and smartphone applications.

V. RESULTS AND DISCUSSION

In this study, there is no surprise that all the undergraduates owned a smartphone and claimed that they had used their smartphones to learn Mandarin. Since the students were introduced to the different Mandarin applications of smartphone early of the semester, the students were more confident and familiar with them as they were easily accessible (27.8%) and the variety of interesting features made it easy for them to learn new Mandarin Words (62%). However, some of the students informed that the smartphones can be useful but it depends on the Mandarin smartphone applications (5.1%).

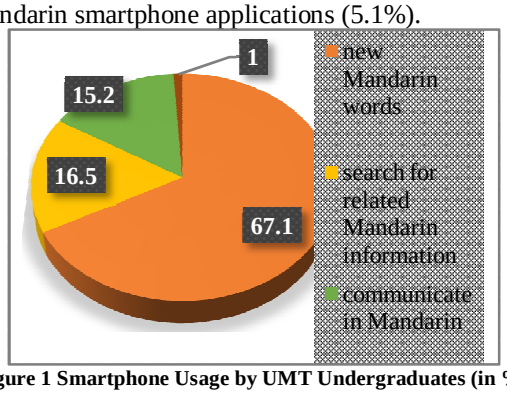

Figure 1 Smartphone Usage by UMT Undergraduates (in %)

Figure 1 shows the different usages of smartphone reported by the students. The majority of the undergraduates used a smartphone to look up for new Mandarin words (67.1%) since the convenience of m-learning helped them to personalize their learning activities. Meanwhile, surfing related information about Mandarin (16.5%) and communicating with others using Mandarin (15.2%) were among the common usage of smartphones. One of the students reported that he used his smartphone for saving notes. The result shows that all the students make use of their smartphone in learning Mandarin. In this study, types of smartphone applications were carefully explored. It is discovered that the respondents enjoyed learning Mandarin using both types of smartphone applications, which are Dictionary Based (DBA) and Teaching and Learning Applications (TLA), and they found they are easy and interesting. All the students have downloaded 60 types of Mandarin smartphone applications which are 18 types of DBA and 42 types of TLA. Some of them are Pleco, 中 ENG Dictionary, Hello Chinese, Chinese, Talking Chinese, Chinese Lite, Pinyin. In short, there are numerous Mandarin smartphone applications which are free and charged which are very helpful in learning Mandarin. Most, if not all the applications will help the students get the meaning of the Mandarin words, phrases, and sentences, listen and practice in pronouncing them anytime and everywhere, whether they are in or outside of the classroom.

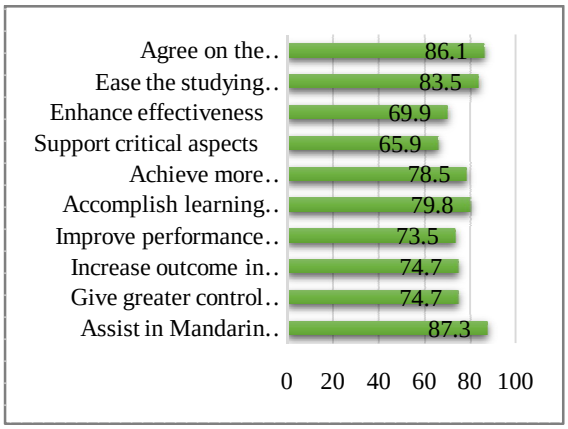

Figure 2 Undergraduates' Perceptions on smartphone applications in learning Mandarin (in %)

A useful way to approach the evaluation of MALL technology is to address its usability, effectiveness, and satisfaction (Sharpes, 2009). The result in figure 2 showed that 87.3% respondents agreed that the smartphones' portability and accessibility have facilitated them in searching and receiving plenty of Mandarin learning material and they can control over their learning anywhere and anytime and at their own convenient pace. Additionally, the advance features of smartphones increase learning engagement as 74.7% of respondents agreed that smartphone applications increased their learning outcomes as well as

improved their Mandarin language performance (73.5%). These applications not only allow autonomy, but also scaffolds their learning. When they were given different tasks, respondents concurred that apps supported in locating and practicing critical aspects of language learning (65.9%) and they sought for materials and practice their Mandarin during their free time, which confirmed that the applications enhance their effectiveness in learning (83.5%) and to sum up using these apps, they could complete more learning tasks in a short time (78.5%).

Table 1 Students' final result (credit hours)

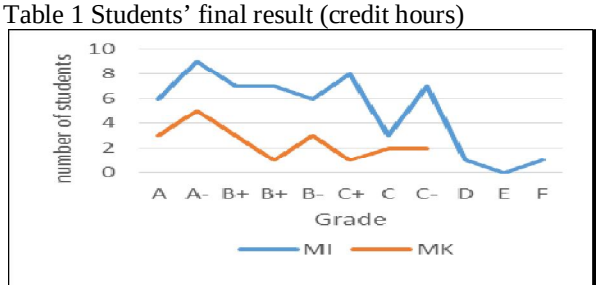

Table 1 shows the final scores of all the students included Mandarin Communicative (MK) and Mandarin I (MI). Most of the students score 50-74 marks, they have the potential to get higher marks if they are properly guided.

When compared to their final grades (table 1), the positive feedbacks do not result inhigh level achievement. Only 31% of them score 75-100 marks which labelled by UMT as excellent level(PeraturanAkademik UMT, 2016). Most of the students (56%) scored 50-74marks (satisfied & good level), 13% are at the level of not satisfied and weak and a student has failed his test. The result shows that even smartphone applications can assist and enhance Mandarin learning but further study is needed to explore how MALL can be pedagogical applied in Mandarin learning either in or outside the classroom.

Table 2 Students' final result (stream)

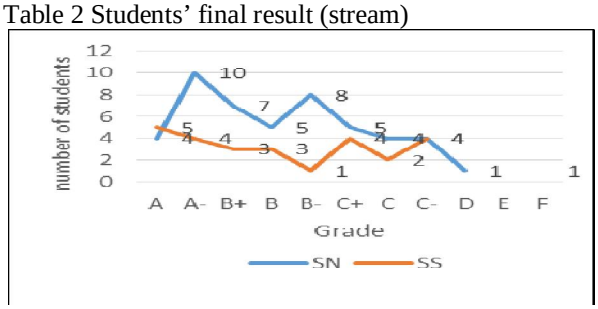

Table 2 shows Social Science (SS) students achieved better marks compared to Science students (SN).

In table 2, Social Science students achieved 33% of good and excellent result compared to Science students who achieve 29%. But more Science students scored satisfied result (60%) compared to Social Science students (48%) and both groups show 10% of the students are at the level less satisfied and weak. The result shows that the graph pattern of both Science and Social Science students are not much different. 89% of Science students scored 50-100 marks and 81% for the Social Science students. In conclusion, most of the Mandarin students in this study like learning Mandarin using smartphones applications. This means, in future instructors need to come out with efficient MALL tasks and learning activities to fully benefit the students when applying apps in learning particularly in Mandarin learning.

In the whole, smartphone applications usage are needed to be well exploited in MALL pedagogical practice. The teacher needs to plan more suitable and attractive MALL tasks for the students to fully explore the usefulness of apps available. In conducting the MALL teaching, all the factors like motivation, learning styles and others should take into consideration. A well-planned MALL activities using smartphone applications is another challenge for the teacher to produce more good result and well Mandarin spoken learners. In short, technology aids learning and a teacher is the important producer in integrating wisely all the important elements while conducting m-learning in order to produce good learners. This provides definitive evidence from the earlier findings whereby the students found it was enjoyable and meaningful by using the smartphones in learning Mandarin and they are willing to explore the applications so that they can be more engaged in learning.

The final results show the students' achievement do not direct to positive improvement. Further explore is needed to find out the effective strategy in applying MALL. M-learning in Mandarin will be interesting as the participants of the study mentioned that smartphones were easy, convenient and they can use them anywhere and anytime, which is agreeable with Geddes (2004). Additionally, the respondents agreed that smartphone applications helped them in completing their Mandarin tasks and enhanced their performance in Mandarin and other subjects. Most of them wanted to know more about the usage of the applications so a proper guide and well-planned MALL activities are needed and MALL in pedagogical practice is encouraged to further explore.

It comes as no surprise that the respondents did not need any introduction on how to use the smartphone applications. This echoes Prensky (2007) and Oblinger (2003) characterizations of the students which are 'digital natives' and 'net generation'; students are technological friendly and digitally fluent. The paradigmatic development of the MALL framework in enhancing language learning (Wong et.al., 2010) has resulted plenty of smartphone applications appeared online for language learning. This is proved that the students have downloaded 60 types of smartphone applications which completed with audios, pictures, songs, and games. MALL in Mandarin should be developed and practiced by the instructors of UMT in their language classes, as

students enjoyed exploring the mobile apps and expressed willing to use them in future.

This finding indicated that mobile devices have changed foreign language instructional methods and learning strategies with today's students (Abdous et. al., 2009). In order to create an effective and supportive teaching and learning environment by using the smartphone applications, the concept of didactic (Kukulska-Hulme and Traxler, 2005) in MALL can be applied, and there were set of pedagogical approaches(Mayes and de Freitas, 2004; Fowler and Mayes, 2004) can be referred by the instructors. Even though the students' attitude towards smartphone applications is positive, it is important for the instructor to manifest the learners a new technological affordances system (Yu, Sun and Chang, 2010). In regards to this, instructors need to guide the students to optimize the utilization of the smartphone applications in an effective MALL pedagogical practice. In short, MALL should be further studied to better serve both Mandarin teachers and students.

CONCLUSION

It can be concluded that smartphone applications are ideal learning tools to enhance learner autonomy and ubiquitous learning. It was clear that most of the students used the smartphone apps in finding new words, sentences in terms of their meaning and pronunciations. They enjoyed and were fluent using them and mentioned this method has improved their language performance. However, not all the students show in achieving high marks. Effort can be done by well-planned MALL tasks and activities to fully exploit the potential of the applications appeared. All in all, smartphone applications and the guidance from instructors will be another way to teach the Mandarin students who have grown up as net generations. One of the limitations of the study is the lacking of generalizability. The investigation was carried out with a limited number of participants. Therefore, caution must be taken when the results are to be generalized to other settings. This can be done by more action research on MALL which focuses on incorporating smartphone applications in pedagogical practiceas literature has shown that MALL aids learning and instructors are the persons who responsible to well exploit it to benefit their students.

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