MOBILE LEARNING IN LANGUAGE TEACHING CONTEXT OF VIETNAM: AN EVALUATION OF STUDENTS' READINESS

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ABSTRACT

Mobile learning trend has seen impressive growth in recent years with the exponential increase of smartphones and tablets. The availability of these devices from student end leads to the need to make use of them for teaching and learning purposes. Even though still in its infancy, Mobile Assisted Language Learning (MALL) is finding its way into Vietnamese language classrooms. This article explores the concept of mobile learning and analyses student data from several online language courses in a university of Vietnam to see how ready Vietnamese students are for this new learning trend.

Keywords: mobile learning, online learning, learning styles, MALL.

TÓM TẮT

Học tập di động trong thực tế giảng dạy ngoại ngữ ở Việt Nam: Đánh giá mức độ sẵn sàng của sinh viên

Trong những năm gần đây, chúng ta chứng kiến sự phát triển mạnh mẽ của trào lưu học tập di động với sự tăng trưởng bùng nổ của các thiết bị điện thoại thông minh và máy tính bảng. Việc thiết bị có sẵn từ phía người học dẫn đến nhu cầu sử dụng chúng cho các mục đích học tập và giảng dạy. Mặc dù mới ở giai đoạn sơ khai, trào lưu học tập với sự hỗ trợ của các thiết bị di động đã xuất hiện ở các lớp học ngoại ngữ của Việt Nam. Bài báo này bàn luận khái niệm học tập di động và phân tích dữ liệu người học lấy từ vài khóa học trực tuyến của một trường đại học ở Việt Nam để đánh giá mức độ sẵn sàng của sinh viên Việt Nam cho xu hướng học tập mới mẻ này.

Từ khóa: học tập di động, học tập trực tuyến, phong cách học tập, MALL.

1. Introduction

The quick advance of technology in recent years has brought about rapid development of the number of mobile devices in many countries, including Vietnam. The quality of these mobile devices keeps improving while their cost is increasingly lower. Together with widespread broadband internet connection, these factors have affected language learners' learning styles and teaching methods in environments where these mobile technologies are used. A lot of effort has been devoted to understanding how mobile technologies can support both traditional and innovative ways of teaching and learning, demonstrating how mobile learning can be applied across a wide spectrum of learning activity (Caladine, 2008) and highlighting the emerging issues (Sharples, 2006). In recent years, there have been many researchers exploring the effectiveness of mobile-assisted language learning (MALL) in different

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contexts, for instance, using mobile phones to deliver online course materials (Motiwalla, 2007), using PDA for undergraduate student incidental vocabulary testing (Song & Fox, 2008) and using SMS to support beginners' language learning (Edmundson, 2007). This paper reports the use of mobile phones and tablets to access online course materials in the teaching context of Vietnam and discusses the implications for language teachers as well as administrators.

2. Literature on mobile assisted language learning

2.1. What is mobile learning?

Mobile learning is developing rapidly beyond the expectation of ICT experts. In the past, mobile learning has often been defined in terms of the use of mobile technologies (Sharples, 2006). However, recent literature in the field emphasized the mobility of learners. The widespread ownership of mobile and wireless devices like iPhones, ipads, tablets, phablets etc. allows learners to more actively participate in learning resources and activities that are related to their personal needs. While some argued that mobile learning involved the use of any portable devices like cassette players, DVD players, TV, portable LCD projectors, mobile learning is often used to refer to more recent technologies. Typically, mobile learning is defined basing on two important aspects: it allows learning to happen anytime and it mainly makes use of handheld or palmtop devices. Within the scope of this article, mobile learning is defined as learning mediated by mobile devices that allow learners to learn anytime and anywhere at their own convenience.

2.2. Mobile assisted language learning versus computer assisted language learning

Some people claim that mobile assisted language learning (MALL) is just another term for computer assisted language learning (CALL). Actually, there are important differences between CALL and MALL. Kukulska-Hulme and Shield (2008) pointed out that MALL differs from computer assisted language learning in its use of personal, portable devices that support new ways of learning, emphasizing continuity or spontaneity of access and interaction across different contexts of use. Understood this way, MALL belongs more to the learners than it does to the instructors. Within MALL literature, there has been little report on cases of teacher-led approaches however.

To see how advanced learners of English use mobile devices to support and extend their learning in self-directed ways, Song & Fox (2008) reported learner-led mobile vocabulary learning activity that they designed. The study shows that mobile devices helped students to communicate about word meanings with other students and their instructors outside the classroom. Another example of learner led activity is the research of Michelsen (2008) in which language learners engage in a learner-centered, self-directed virtual community of practice in a mobile game to prepare for their Cambridge FCE exam papers.

According to Kukulska-Hulme & Shield (2008), what makes mobile technology so intriguing is its ability to break the classroom walls and allows movement between

indoors and outdoors, across formal and informal settings. If language learners' choices and preferences are taken into account in language teaching, mobile technologies clearly have an important role in giving learners what they find most relevant to their learning needs.

2.3. Role of learner and teacher in mobile learning

Most theories of language teaching now are built on the assumption that learning happens in a classroom environment mediated by a qualified teacher. Therefore, these theories fail to include the distinctiveness of mobile learning. An acceptable mobile learning pedagogy must take into account a considerable amount of learning that happens outside the classroom and actively led by the learners. To understand how mobile technology can be appropriated for teaching and learning, one needs to be aware of its strength. That is the ability to offer intimate, spontaneous, pervasive and versatile learning. According to Koole (2009), mobile learning "provides and enhances cognitive environment in which distance learners can interact with their instructors, their course materials, and their physical and virtual environment". The mobile learning pedagogy from this view point is mainly student-centered. This pedagogical approach assumes that students come into the classroom with their own background knowledge and thus should be encouraged to construct their own meaning by interacting as much as possible with each other, reading, writing and reflecting on the content. Laurillard (2007) claims that when collaborating with each other, students are more likely to be motivated to share their work with each other as well as to augment their conceptual understanding. Mobile learning can facilitate this kind of collaboration by building groups of learners who are committed to the common goal.

Typically, in a mobile learning environment, the learners should be able to:

- Decide the learning methods that work best for them with their own devices
- Determine what they want to learn based on a wide selection of course materials
- Form their own learning groups by using social networks or collaboration tools like Facebook, Twitter, YouTube, Google Docs, Wiki, Blog etc.
- Take the initiative to interact with their instructor and their peers.

According to Glahn (2011), in traditional classrooms, the role of the teacher was to be expert giving lectures to learners whore are considered empty minds that need filling. With the advance of Web 2.0 and social networks, learners have media channels at their disposal to present their own ideas. In such a setting, the role of the teacher shifts from the presenter of expert knowledge to moderator of opinions. Glahn claims that this role is much more challenging as teachers need to accept different opinions and positions and guide the process of knowledge selection and acquisition. With mobile learning, it is even more challenging for the teachers as learning processes are no longer defined settings. Teaching and learning no longer happen only in the classroom or the lecture hall on the campus. Teaching and learning can now occur in the study rooms in students' home, in the train they are travelling on or in public places they meet other people. Within this context, the role of the teacher slowly shifts

towards being a consultant (Glahn, 2011). Teachers now need to find out what learners are really interested in, relate these interests to the learning goals and provide learning opportunities appropriate for the specific conditions of the learners.

The purpose of the current study was to determine how learners with the option of using mobile phones for language learning tasks would use the learning resources in the system. The study aimed to address the following research questions:

- To what extent are students ready for mobile learning?
- Does blended mobile learning improve students' performance in language learning?

3. Method

3.1. Participants and procedure

The department at the investigated university began to use the MOODLE based m-learning system in the fall semester of 2011. The courses offered in the system were upgraded from the e-learning system built in 2007. Since this was a pilot project, only a few interested lecturers volunteered to join by creating their own course. The researcher himself built up to 5 courses in the system for the mainstream classes he was in charge in the department. The sample of classes for this study included 5 courses taught from 2013 to 2015. The total enrollment for these courses was 234 students, 84 % of whom were females (n=196). 37% of the enrolled students (n = 87) lived in Ho Chi Minh City. Most of the learners were at upper-intermediate level of proficiency in English.

The courses lasted 15 weeks. Every week, students would have 2 class hours of face to face meetings in multimedia computer labs. During these face to face meetings, they were sometimes encouraged to log into the mobile system and do some learning activities. It was assumed that desktop computers were still the overwhelmingly major technology possessed by students besides mobile devices. Therefore, students were allowed to access the learning materials on both regular desktops and mobile phones. They were told to switch between platforms as they desired and they could even begin the lesson on one platform and then complete it on the other without any disadvantage. Students were also told in advance that data would be collected and used for research and system upgrading but their privacy would be protected.

3.2. System description

Classes under investigation in this research use a MOODLE based learning management system. This system had responsive interface for desktop screens and mobile devices and it could automatically recognize the user device to switch to the appropriate interface. Both interfaces were accessible via the same web link *http://mlearning.hcmup.edu.vn*. The two systems shared the same database and learning activities could be done interchangeably on either platforms.

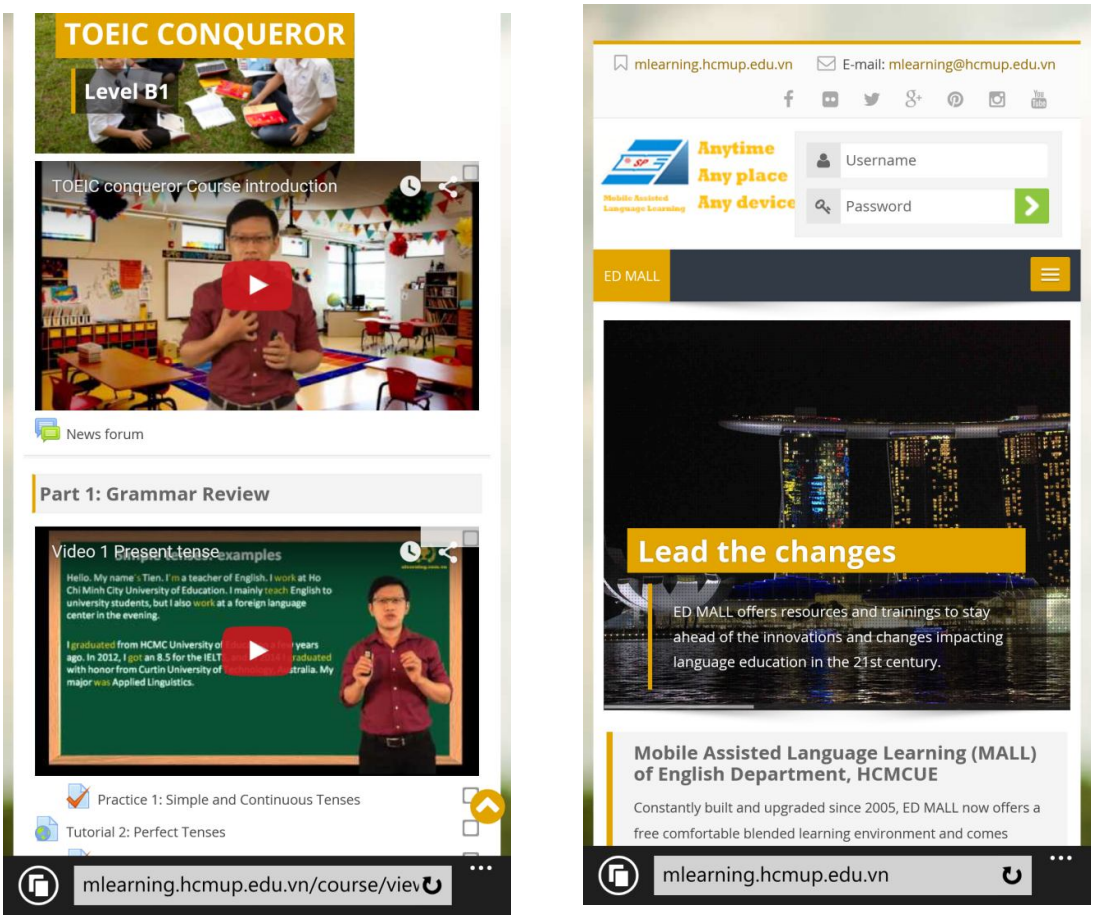


Figure 1. *Snapshots of the m-learning system on mobile phone*

3.3. Data collection

The data were collected through detailed server logs automatically recorded by the system, and a survey administered at the beginning and at the end of the semester. The server logs kept record of access time, student's action, the learning activity student worked on, the time the learning activity was started and ended, the number of attempts together with a variety of other administration information. For the sake of system performance, the server logs were kept for only 6 months before they were automatically removed. To avoid accidental data loss, the course contents together with server logs were backed up every week on Sunday.

The surveys were administered anonymously at the beginning and the end of the course. The initial survey asked students about their background information, the type of device they used to access course contents, their habits when getting online, how ready they were technically for mobile learning, their perception about advantages and

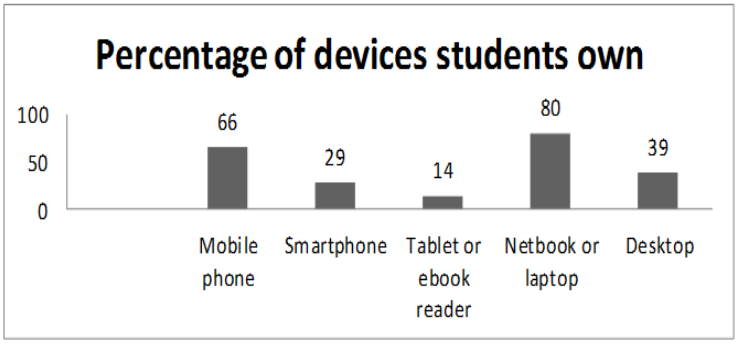
disadvantages of mobile learning as well as their learning styles and habits. Technical readiness data was gathered using Likert scale ranging from "Never or almost never true of me" to "Always or almost always true of me". Data about learning styles and habits was gathered in the similar way. Open questions were used to explore learners' perception of advantages and disadvantages about mobile learning. The end of course survey asked students about what they liked and disliked about the course, the effectiveness of the system and the learning activities they enjoyed. Likert scale items ranging from "Not at all" to "Very much" were used to measure students' enjoyment for specific learning tasks. Likewise, students' perception about the effectiveness and the future of mobile learning was measured using Likert scale ranging from "Strongly agree" to "Strongly disagree".

4. Results and discussion

4.1. Availability of hardware devices

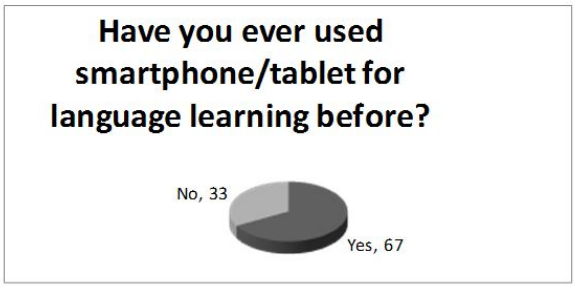
The total number of initial surveys received was 234. As chart 1 shows, the majority of students (80%) used netbooks or laptops to access course contents followed by 39% of students using desktops. 154 students out of 234 used mobile phones for their work in the course and 68 students (29%) used smartphones for similar purposes. Smartphones in this study are defined as mobile phones with much more advanced hardware and capacities like Iphone, Samsung Galaxy, and HTC etc. A further 33 learners specified that they also used tablets or eBook reader for course work.

Chart 1. *Devices students used to access course contents (n = 234)*



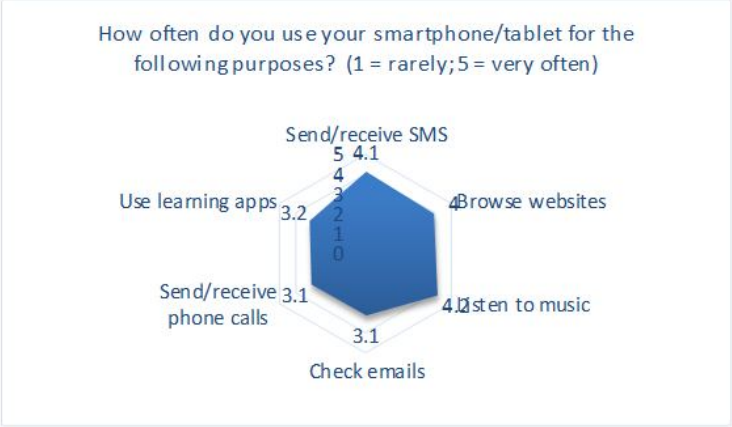
In the next question of the survey about whether these students had used smartphones or tablets for language learning before the course, there were 87 responses and the majority of them said yes (58 out of 87, 67%). Of these 87 students, 57 subscribed to 3G service for 24/7 internet connection (65%). It is noted that 3G internet service in Vietnam at the time this study was conducted was very affordable at around 3 USD/month only.

Chart 2. *Percentage of students using smartphone/tablet for language learning*



In another question of the survey, we asked how regularly students used mobile devices for a variety of purposes as shown in chart 3. The results show that before doing the course, according the learners, mobile devices were mainly used for recreation purposes (4,1 for send/receive SMS, 4 for browsing websites and 4.2 for listen to music). It is interesting that these students also used their mobile devices relatively often for educational purposes like checking emails and using learning applications. The primary function of a cellphone scored only 3.1 showing that smartphones were used more frequently for purposes other than making phone calls.

Chart 3. *Frequency of using mobile devices for different purposes*



4.2. Online learning dedication

The logs from the server of the mlearning system were analyzed along with the survey data. To evaluate whether the mlearning course was successful in enhancing students' motivation and made them spend time on the learning activities, a learning dedication tool was used to collect data. The learning dedication time is estimated based on the concepts of session and session duration stored in the server database. The total learning dedication time for each learner was calculated by using these 2 kinds of data:

1. Click: Every time a user loads a page in the system, a log entry is stored into the database.
2. Session duration: The amount of time elapsed between the first and last click of a session.

Learning dedication from the log data shows that students did spend a lot of time working with the learning contents within the course with the most dedicated student spending 69 hours 15 mins and the least dedicated student spending 7 hours 1 min. The average time every student in the course spent on course materials was 1685.5 mins. That equaled 28 hours each student. Comparing with the total time for face to face meetings of 30 class periods (1500 mins in total), the average amount of time each student worked with the course materials was significant in the teaching context of Vietnam. As data from table 2 shows, a lot of students worked really hard in the system. In other words, the mobile learning system was able to motive students' interest in the learning activities. This is an important factor in enhancing students' overall performance in the course.

Table 1. *Top 20 dedicated students in the mobile learning system*

Student	Course dedication (mins)	Course dedication	Connections per day
1	4156	69 hours 15 mins	0,52
2	3720	61 hours 59 mins	0,55
3	3039	50 hours 39 mins	0,54
4	3003	50 hours 2 mins	0,46
5	2806	46 hours 45 mins	0,48
6	2787	46 hours 26 mins	0,4
7	2656	44 hours 16 mins	0,46
8	2575	42 hours 55 mins	0,5
9	2438	40 hours 38 mins	0,62
10	2423	40 hours 23 mins	0,5
11	2357	39 hours 17 mins	0,66
12	2298	38 hours 17 mins	0,67
13	2289	38 hours 9 mins	0,4
14	2223	37 hours 2 mins	0,41
15	2200	36 hours 39 mins	0,42
16	2178	36 hours 17 mins	0,39
17	2094	34 hours 54 mins	0,42
18	2073	34 hours 32 mins	0,4
19	1955	32 hours 34 mins	0,27
20	1950	32 hours 30 mins	0,27

4.3. Students' readiness for mobile learning

4.3.1. Technical readiness

According to the survey, all learners were equipped with devices to access materials from the mobile learning system. All of them also had good internet connection at home. There were differences in the percentages of learners owning mobile devices with 29% owning smartphones, 14% owning tablets and 80% owning laptops. Since the mlearning system was designed to work on both laptops and smartphones, the types of devices did not affect the ability to participate in learning activities in the system. Therefore, in terms of hardware devices and internet connection, students were ready for mobile learning. The students were also familiar with using internet tools like discussion forums, voice chat, text chat, and blogs. Most of them could type comfortably at the speed of 30 words per minute.

However, many students voice their concerns about the quality of internet connection:

"My mobile phone doesn't have a wide screen so I cannot read the text on the phone conveniently. Besides, I don't have very good internet connection. I usually use a 3G-connection. Actually it's not stable and sometimes very weak." (S45).

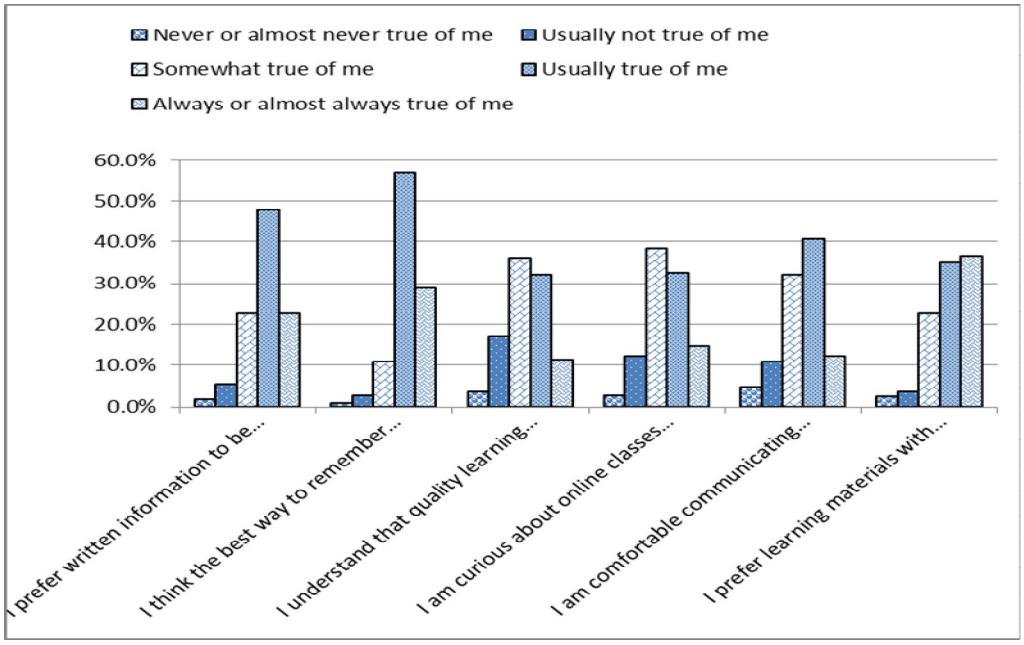
"I have a smartphone; however, the 3G connection is rather slow sometimes" (S58).

"In terms of technical readiness, I have 3G connection at home, it's not very fast but I can access the Internet whenever I want. However it's slow for me to access the Internet by mobile phone." (S84).

4.3.2. Learning styles

In terms of learning styles, chart 4 shows that the majority of students preferred written information to be supplemented by visual aid (47.7% usually true of me, 22.5% always true of me). Many students agreed that the best way to remember something is to picture it in their heads (56.8% usually true of me, 28.8% always true of me). A significant number of students preferred learning materials with multimedia contents like voice, video and games (32% usually true of me, 11.2% always true of me). These learning styles were very well supported in the mobile learning courses in which visual materials and multimedia contents were used a lot.

Chart 4. *Students' learning styles in the mobile learning system*



While most students appreciate the chance to have access to multiple sources of learning contents, especially visual materials of the mobile learning system, the majority think that quality learning needs a combination of online learning and face to face instruction. Without face-to-face interaction, a fair number of students believed that quality learning could not take place (32% Usually true of me and 11,2% Always true of me). A few students felt not confortable communicating with others through writing (n = 31, 10.8%). Anyway, most students were eager to get online learning experience on mobile devices. Since nearly all of these students had very little experience with online learning on mobile devices before, it is reasonable to for them to have mixed feelings as shown in these comments:

"I haven't taken a mobile learning course before, so it seems too strange for me. But, I have heard about it through many channels and I am very interesting about that." (S32)

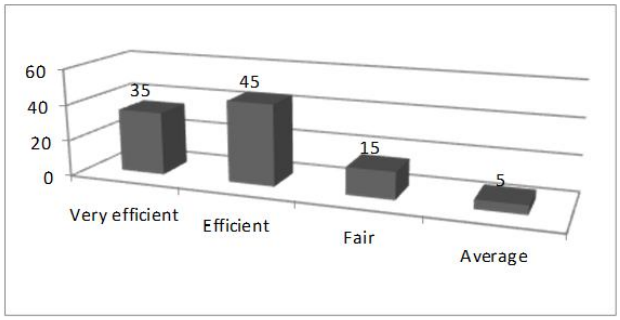
"I am quite familiar with traditional learning method for a long time and I'm afraid it'll take time for me to adapt new way of learning as Mobile learning. But, I am a diligent student who is willing to change to be better." (S48)

Taken into account their preference for interactive materials in the mobile learning system, most of the students were ready for mobile learning in learning styles.

4.3.3. Perception of mobile learning

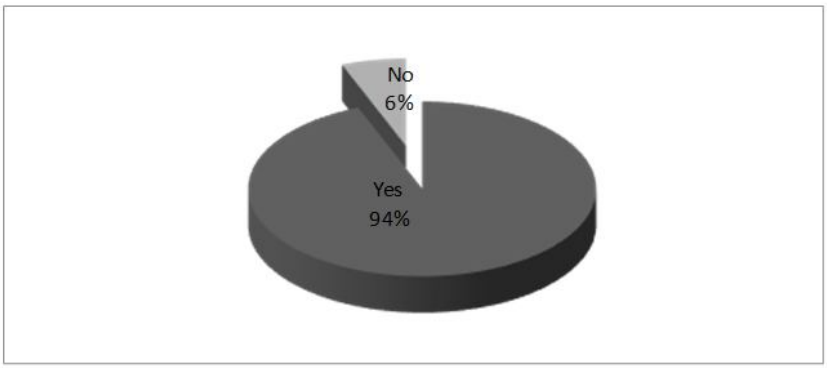
The survey result shows a positive perception from students about mobile assisted language learning. 35% of the participants believed that the courses were very efficient and 45% believed that the courses were efficient with the support of mobile learning.

Chart 5. *Students' evaluation of the efficiency of mobile learning*



When asked about whether mobile learning is more effective than traditional learning with face to face interaction only, most of the participants agree that language learning with support from the mobile system is more effective (94%).

Chart 6. *Percentage of participants agreeing that mobile language learning is more effective than learning with face to face interaction only*



The results show that the majority of participants in the online courses have positive perception about the value of mobile learning. For them, the benefits of rich online interaction outweigh obstacles that they may have to overcome when working in the system.

5. Conclusion

The findings from this paper show that mobile learning is catching up in the language teaching context of Vietnam even though most students have little experience with it. The majority of students are well-prepared in terms of internet connection and availability of devices. Despite some obstacles in getting familiar with the new learning

platform, most students can adapt quickly and show digital friendly learning styles. The findings from this study confirm what have been found earlier about online learning styles. While participants in this study are happy with the rich multimedia contents that help them learn visually and enrich online interaction, quite a few students are concerned about the lack of face-to-face interaction and group work that they are familiar with. Weak computer skill is another obstacle that several students have to deal with when shifting to learning online. In order to better support students, it is recommended that an official online learning skill training course is provided.

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