Promoting Chinese Students' Participation in English classes by Mobile Learning

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Abstract In recent years there has seen a wealth of literature on mobile assisted language learning, especially mobile learning in informal learning settings. In this paper, we reported findings from a mobile learning project integrated into a college English classroom in China. One hundred and twenty-four students from two intact classes took part in a mobile-assisted language learning project. Data were collected from the survey questionnaire administered at the end of semester. Students logging data were also collected to analyze students' level of participation. Results show students responded positively to using smartphones in classroom. Smartphones can promote students' participation and interaction in the English class.

Key words: mobile assisted language learning, mobile learning, smart phones, engagement

1. Introduction

The portability and connectivity of mobile phones promise great potentials for mobile learning. Students' mobile learning, however, was found to be still limited due to such factors as small screen size (Stockwell, 2008) , high connectivity cost and hardware prices (Dashtestani, 2015). Recent development of mobile technology is likely to deliver better results. For example, in the latest report released by China Internet Network Information Center, by the end of June 2016, the number of mobile internet users reached 656 million in China and mobile access has become the dominant means of Internet access for Chinese Internet users. Prices of smartphones and connectivity cost in China also drop in a way that most users can afford with free WIFI widely available, especially on school campuses. Smartphones hold great promises for pedagogical use in educational settings.

2. Previous works

In recent years there has been a wealth of literature published on mobile learning. These studies have addressed various issues regarding language learning. Overall, there's a great deal of interest in mobile-assisted vocabulary learning (Stockwell, 2007; Burston, 2014b). For example, Thornton & Houser (2005)、 Lu (2008) compared the effect of mobile vocabulary learning with learning vocabulary by traditional approach, and found mobile learning has greater vocabulary gains. There are also quite a few studies on the effect of mobile learning on listening (Nah, White, & Sussex,

2008) and writing (Hwang, Chen & Chen, 2011). However, most previous works on mobile assisted language learning seem to use mobile phones mainly to deliver contents and pedagogically more or less followed behaviorist teaching practices (Burston, 2014a). To our knowledge, studies exploring the interactivity and collaboration afforded by mobile learning are still scant. The current pilot study aims to examine how smartphones can be used to promote students' classroom interaction and participation. Specifically three questions were formulated:

(1) How do students perceive the use of smartphones to facilitate classroom discussion and interaction in EFL classes?
(2) How actively do the students participate in the MALL project?
(3) What's the quality of the students' online discussion?

3. Methodology

3.1 Participants

One hundred and twenty-four second-year college students from two intact classes enrolled in an EFL general English course took part in the study. The first class comprised of 61 engineering students and the second class of 63 students was from business management department. The students' English level was mixed with most of them being average based on the national College English Test Band-4 scores. According to the survey done at the beginning of the project, all the students owned their own smartphones and over 90% of the participants expressed positive opinions on using mobile phones for language learning purposes.

3.2 Procedure

The current project lasted for 6 weeks, covering three learning modules with varying topics. The topics were selected from a required textbook. In each learning module, a free commercial mobile platform *CloudClass* was employed to facilitate class interaction. CloudClass is a mobile teaching platform developed by a Chinese Internet company which can realize many online pedagogical functions, such as synchronous chatting, quizzes, voting, resource uploading and homework submission and so forth. The software can be downloaded for free from App stores and installed on smartphones for easy access on any mobile operating systems.

After group or pair communicative tasks in traditional format were finished in class, the students were asked to voluntarily post their opinions on the mobile discussion board for class-wide discussion. Cloudclass was also used as a classroom response system to poll students' opinions, invite questions, and provide instant feedback to students. The mobile-assisted learning session took about 15 minutes during each class meeting. For students who were not willing to use their mobile phones to participate, they can either submit paper-based quizzes or participated in class discussion orally.

3.3 Data collection

Data were collected from a survey questionnaire administered at the end of the project. Eight Likert scale questions were designed to examine students' perceptions of using smartphones to

promote class interaction and participation. Students' log data on the mobile platform was also collected to analyze their online learning activity. A focused group interview was also conducted to provide in-depth analysis of students' opinions of the MALL project. To further examine the quality of students' participation, textual features of the posted discussion was also presented and analyzed.

4. Results and discussion

4.1 How do students perceive the use of smartphones to facilitate classroom discussion and interaction in EFL classes?

As is shown in Table 1, most students believe mobile learning promoted their class participation, improved their willingness to communicate, and reduced their anxiety. Only about 24.7% students felt it losing-face to make mistakes in the messages posted online, which suggests mobile learning could provide a less threatening environment for the students, thus increasing their willingness to communicate.

Results of the interviews also proved the survey findings. Students' comments are as follows:

"When answering questions on mobile phones, you don't have to stand up and be put in the spotlight. I like to post my opinions on mobile phones. Even if you make mistakes, since there are so many posts going so fast, it doesn't matter at all."

"I like to have discussions on mobile phones because there is a lot more interaction than in traditional class."

Table 1

Questionnaire results on students' perceptions of using smartphones in classroom learning (n=97)

Item	Agree	Disagree	Undecided
Q1: In mobile-learning assisted English class, I'm willing to participate in class-wide discussions.	80.4%	6.2%	13.4%
Q2: In mobile-learning assisted English class, I will ask the teacher directly if I have questions.	44.3%	15.5%	40.2%
Q3: In mobile-learning assisted English class, I'm willing to express my opinions in English.	72.2%	6.2%	21.6%
Q4: In mobile-learning assisted English class, I'm willing to answer my teacher's questions.	57.7%	8.3%	34.0%
Q5: I feel nervous in mobile learning class.	17.5%	51.6%	30.9%
Q6: I feel losing face when making some mistakes in my posts on CloudClass discussion board.	19.6%	55.7%	24.7%
Q7: The class atmosphere is generally good.	80.4%	19.6%	0
Q8: I'm satisfied with this English learning experience.	75.3%	6.2%	18.6%

4.2 Students' log activity on the mobile platform

During the project, three discussion activities (including two text-based and one audio-based

discussion), one voting activity, three quizzing activities based on the mobile platform were integrated into classroom teaching. From table 2, we can see students generally maintained strong interest in participating in the mobile learning activities, and several activities reached about 90% participation rate. One interesting interaction feature of the CloudClass discussion board is it allows the users to give thumbs up to a post. In the current project the instructor asked the students to give a thumb up to a post they find well written. The students were extremely active in giving thumbs up. For example, in one discussion, class 1 gave 75 thumbs up and class 2 gave 105 thumbs up, building a highly interactive environment. However, it should be noted it's not clear whether students' gave thumbs up because they really read and liked the posts or simple for fun. Despite this, the fact that this interactivity feature increased students' motivation to participate should not be neglected.

Table 2

Students' log data on the mobile platform

Activity		Number of mobile participants	
		Class1 (engineering) n=61	Class 2 (business management) n=63
Discussion activity	Activity 1 (text-based)	31	32
	Activity 2 (text-based)	44	57
	Activity 3 (audio-based)	48	54
Voting activity		47	39
Quizzing activity	Quiz 1	50	53
	Quiz 2	38	44
	Quiz 3	50	54

4.3 Textual analysis of the students' online discussion

The second discussion activity was chosen for detailed analysis to illustrate the quality of the students' online discussion. In this activity, the instructor asked the students to discuss the module topic "whether our world is getting meaner" and posted their discussion on the mobile discussion board. Altogether 101 posts were collected, and a small corpus of 2191 words was built accordingly. Descriptive statistics of the online posts (Table 3) show the students posted an average of 19.67 words for the discussion activity. The longest post had 67 words in total whereas the shortest post had only one word. It should be noted, however, the frequency of the short word posts was quite low, with only four students posted either "No", "maybe", or "I don't think so". The rest of the students all provided explanation of various depths in their discussion. Key word analysis also showed students' discussions were highly relevant to the topic under discussion (Fig.1).

Table 3.

Descriptive statistics for the discussion posted in Activity 2

	Min.	Max.	Mean	SD

Word count of Activity 2	1	67	19.67	11.595

Examples of the students' comments are shown below:

"*I don't think so. For my own part, there are still many people who are willing to help others, but those who thought they have seen too much about the society are accelerating the world getting meaner.*"

"*it's not because people get meaner, but more mean people are reported than before.*"

In traditional classes, confined by language proficiency, anxiety and cultural constraints, many Chinese students would rather express their views in as few words as possible, thus making communicative teaching approach rather difficult to implement in class. From the above-mentioned analysis we can see students were more willing to express their opinions and share their views with others online. Moreover, the contents of the posts indicated a high level of cognitive engagement on the parts of the students.
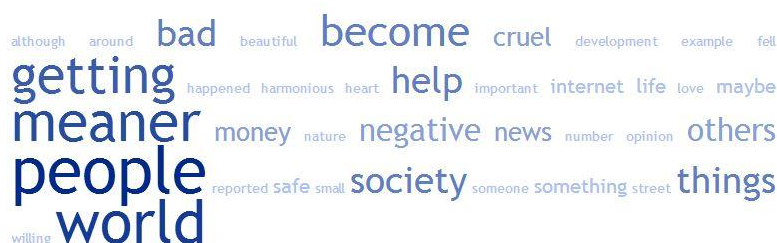

Fig. 1 Key word analysis of Discussion Activity 2 based on frequency

5. Conclusion

We implemented a mobile-learning project integrated into an EFL class. Students exhibited a high level of participation in the mobile learning activities. Benefits of the mobile-learning integration project are identified as promoting interaction among students, providing a highly interactive and less threatening environment and enhancing class participation. Given the short duration of this pilot study, the study is not without limitations. However, this study might shed some light on how mobile learning can be employed to promote class participation for students, especially for Asian students who are often considered as reticent in class interaction.

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