An Empirical Study on Improving Speaking Skills of Students in Vocational Colleges Under MALL Environments

Shan Yin

ABSTRACT

The purpose of this research was to explore the impact of mobile technology on speaking skills of students in vocational colleges when mobile learning was implemented in English teaching and learning. Two classes participated in the experiment, one of which as EG used mobile technology, while the other as CG did not. Both classes improved speaking skills after the experiment, but EG significantly outperformed CG, especially in their pronunciation and fluency. Furthermore, most students held positive perceptions of mobile learning. These results suggest that mobile technology can greatly improve students’ speaking skills as students are encouraged and motivated to practice English speaking more frequently, make interactive connection with people around in a MALL environment.

1. INTRODUCTION

The advancement in computer and multimedia technologies have changed the ways in which languages are learned [1]. As useful supporting tools for English as Foreign Language (EFL) learners, computers and other tools have facilitated so called Computer Assisted Language Learning (CALL), while the popularity of mobile devices (smart phones, iPads and tablet PCs, etc.) has encouraged the prevalence of Mobile Learning, especially Mobile Assisted Language Learning (MALL). It is suggested that students’ EFL learning experiences can be extended through the use of mobile [2] as mobile technology enables learners to access learning content without being constrained by space and time. Furthermore, MALL has promoted a shift from the traditional teacher-centered learning model to a

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learner-centered learning model where learners can choose their favorite learning styles in accordance with their needs and abilities.

There have been many researches focusing on MALL’s effect on vocabulary learning, integrated language learning and whole language learning [3]. However, only a few of studies have examined MALL’s effect on speaking skills of EFL learners, mainly the young learners in elementary schools [4] [5], and less studies focus on application of mobile technology to enhance the speaking abilities of the students in vocational colleges.

Different from higher education focusing on pursuit of academic achievement, vocational education emphasizes mastery of hands-on skills through learning by doing. Therefore, it is feasible for mobile learning to be integrated into their English learning process. Based on Superstar learning system, a mobile learning system which can be operated both on the mobile devices and computers with the same login ID, the study will examine the effect of mobile technology in improving the speaking skills of students in vocational college. The following three questions were addressed here:

(1) Can mobile technology improve speaking performance of students in vocational college?
(2) Which speaking skills can be improved by mobile technology?
(3) What are students’ perceptions of mobile learning used in this study?

2. METHODOLOGY

2.1 Participants

2 intact classes with a total of 86 female students majoring in flight attendant from a civil aviation vocational college were selected to participate in the experiment. They all had smart phones or cellphones, and some even had iPads or PC. As their remarks of PRETCO (Practical English Test for Colleges, a generally acknowledged authorized standardized examination in China specifically designed for students in vocational colleges) and an oral pretest showed they were at the same level pertaining to their English proficiency and speaking abilities, they were randomly assigned to control and experimental groups with 43 students in each.

2.2 Procedure

The experiment lasted for 16 weeks with one 45-minute oral English class each week. All the classes were conducted by the same teacher with the same learning content and assignments. Each class was divided into several groups to carry out the collaborative learning. The only difference was that the control group (CG) used a traditional method with the utilization of computers, while the experimental group
used mobile devices and computers as well. Before the experiment started, there were two weeks for students in EG to familiarize the mobile learning system.

Teaching in EG followed such a process as motivating, enabling and assessing, with mobile technology integrated into each step here. A project and its explanation would be presented on the system ahead of teaching to show students important knowledge points and skills, as well as learning objectives and difficulties. They could leave messages in the discussion area to let the teacher know their needs, which, together with the teaching goals and contents, would be taken into consideration when the teaching plan was made. As preparation, students were required to finish some online tasks later, such as watching mini-lectures, learning the new words and phrases, and finishing a quiz, etc. Some collaborative tasks were also given to students, then uploaded onto the system and shared. Communication was also supported by the mobile learning system whenever it was needed.

Both the teaching computer and mobile devices were used in the class to reinforce the knowledge acquisition and build communicative skills. To assist students in the following learning, language input was provided, and the teacher would specify the valuable information such as language points, professional knowledge helpful for the oral production in English, and continue to provide students with support and instruction.

The project with different forms was given to students as the after-class task, and it would be uploaded onto the system, then evaluated by other groups. Later the teacher would give assessment to each work, sometimes foreign teachers and industrial professionals would be invited to do it. Students would make reflection and polish their works with reference to all assessments.

The traditional approach was implemented in CG. Language items were the focus of teaching, and the acquisition of knowledge was achieved by understanding, repeating and memorizing. After provided with a variety of learning materials and speaking exercises, students were expected to finish communication tasks such as a dialogue, a role-play or an interview with what they had learned in the class.

2.3 Data collection

The study took the quantitative methods and qualitative methods together, and data for it included the students’ PRETCO results, English oral skills pretest and post-test results, questionnaires, and interviews with students from the EG.

The pretest before the experiment and the post-test after the experiment were designed and conducted by two experienced teachers. Both tests had similar items but different in content. Students were asked to describe a randomly selected picture from 10 pictures and answer two questions based on it. Students’ speaking skills were assessed from five aspects: pronunciation, accuracy, fluency, appropriacy and completeness. Grading standards were made by all teachers in the research group, and students’ performance in oral tests was recorded by videos.
A questionnaire was given to all the participants in EG after the post-test. 24 questions were designed to explore students’ attitude and the impact of mobile learning on participants’ learning attitude, ability, and efficacy. A five-point Likert scale from “strongly disagree” to “strongly agree” was used here, and the value of Cronbach’s alpha was 0.98, which meant the items were reliable.

Participants were graded into three levels according to their English proficiency, and four students were randomly selected from each level to receive a one-to-one semi-structured interview. Three open-ended questions were given to help the research team further understand how students perceived mobile learning and their experiences with the learning system.

3. RESULTS

Independent-samples T-tests were conducted to compare scores of the CG and EG on the PRETICO and pretest before the experiment to see whether there was any difference between their English proficiency, and then scores of the CG and the EG on the post-test after the experiment. The results are illustrated in Table 1.

<table>
<thead>
<tr>
<th>Items</th>
<th>EG (N=43)</th>
<th>CG (N=43)</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRECTO</td>
<td>79.63</td>
<td>79.72</td>
<td>.318</td>
<td>.575</td>
</tr>
<tr>
<td>Pretest</td>
<td>75.33</td>
<td>74.47</td>
<td>.376</td>
<td>.542</td>
</tr>
<tr>
<td>Post-test</td>
<td>82.65</td>
<td>76.65</td>
<td>4.268</td>
<td>.042</td>
</tr>
</tbody>
</table>

As it was shown in Table 1, there was no significant difference in scores of EG (M=79.63, SD=9.554) and CG (M=79.72, SD=9.200) on the PRETICO (F=.318, P=.575>.05), and the scores of EG (M=75.33, SD=8.470) and CG (M=74.47, SD=8.030) on the pretest (F=.376, P=.542>.05) which means they had equivalent English proficiency and EFL speaking abilities before the experiment. Although both groups got higher scores in post-test than in the pretest, the EG (M=82.65, SD=7.293) significantly outperformed CG (F=4.268, P=.042<.05). The result suggests that students who learned in mobile learning made more progress in their speaking abilities than those who learned with the traditional method.

Independent-samples T-tests were also performed to compare scores of EG and CG on each portion of post-test separately to answer the second research question. The results are illustrated in Table 2.
Table II. The results of the assessment and T-test for each portion in post-test.

<table>
<thead>
<tr>
<th>Items</th>
<th>EG (N=43)</th>
<th>CG (N=43)</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>pronunciation (15)</td>
<td>12.91</td>
<td>11.74</td>
<td>15.093</td>
<td>.000</td>
</tr>
<tr>
<td>accuracy (30)</td>
<td>23.98</td>
<td>22.33</td>
<td>1.496</td>
<td>.225</td>
</tr>
<tr>
<td>fluency (15)</td>
<td>16.88</td>
<td>15.60</td>
<td>9.929</td>
<td>.002</td>
</tr>
<tr>
<td>appropriacy (20)</td>
<td>12.56</td>
<td>11.47</td>
<td>.035</td>
<td>.853</td>
</tr>
<tr>
<td>completeness (20)</td>
<td>16.21</td>
<td>15.51</td>
<td>1.000</td>
<td>.320</td>
</tr>
</tbody>
</table>

It can be seen that no significant differences were found in accuracy (F=1.496, p=.225>.05), appropriacy (F=.035, p=.853>.05) and completeness (F=1.000, p=.320>.05), while significant differences were found in pronunciation (F=15.093, p=.000<.05) and fluency (F=9.929, p=.002<.05).

The questionnaire surveyed the impact of mobile technology and their attitude towards it. Table 3 presents the means and standard deviations of its scores. It is clearly shown that most of the participants held the positive attitude towards blended mobile learning system as they were obviously benefited from it.

The one-to-one interviews gave us a further understanding of students’ perception of mobile learning. The advantages students mentioned included ease of use, ease of access to abundant learning materials, a variety of learning ways, more opportunities for practice, interactive connection with the teacher and peers, and situated learning. Students also specified major benefits from mobile learning, such as improvement in learning motivation and confidence, ability of autonomous learning, speaking abilities and teamwork.

Table III. Descriptive statistics of Questionnaire.

<table>
<thead>
<tr>
<th>Items (maximum)</th>
<th>Minimum</th>
<th>Maximum</th>
<th>EG (N=43)</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning attitude (30)</td>
<td>3</td>
<td>5</td>
<td>25.349</td>
<td>0.639</td>
</tr>
<tr>
<td>Learning ability (25)</td>
<td>3</td>
<td>5</td>
<td>20.884</td>
<td>0.664</td>
</tr>
<tr>
<td>Learning efficacy (35)</td>
<td>3</td>
<td>5</td>
<td>29.467</td>
<td>0.650</td>
</tr>
<tr>
<td>Satisfaction (30)</td>
<td>3</td>
<td>5</td>
<td>25.302</td>
<td>0.644</td>
</tr>
<tr>
<td>Total (120)</td>
<td>3</td>
<td>5</td>
<td>101.002</td>
<td>15.571</td>
</tr>
</tbody>
</table>
4. DISCUSSION

The results of data analysis suggest that both groups made progress in their speaking skills during the semester, but EG made greater gains, especially in pronunciation and fluency. And mobile learning is highly appreciated by most students. We can give the explanation from following aspects.

More engagement in learning: As mobile technology promises the ease of quick access to information and knowledge, and breaks through the restriction of space and time, students can learn English whenever and wherever they are available, even on the move. It has greatly promoted their engagement in English learning. We have found it in this study that compared with students from CG whose learning was restricted in the class and in front of the computers, students from EG had more time and opportunities to learn and practice English as they could carry their mobile devices everywhere and log onto the system anytime. More engagement in learning and more practice has enhanced the gains in pronunciation and fluency as these two skills can be improved in shorter time than that others do. As one student (No. 8) mentioned, “It is so convenient to log onto the system that I can easily start English learning as long as I can find the WI-FI and free time.”

Enhanced motivation: Mobile learning gives students the flexibility to choose how to learn and what to learn, hence enhances their motivation as individual needs and personalities are taken into account. In the teacher-centered class, language skills are transferred by the teacher alone, while students receive the knowledge passively. However, in mobile learning, students explore the learning and develop language skills by themselves. When they take control of the learning, they become highly motivated.

Interactive connection: The mobile learning also supported the interactive connection either in virtual or realistic learning. Several students mentioned that they could use the mobile learning system to receive feedback and instruction from the teacher, exchange information and discuss the course content and tasks with fellow students. Because of the multiple functions on the system, virtual and real interaction can coexist and strengthen each other even in the real class. For example, the teacher could use the system to randomly pick up someone to answer a question rather than force students to be volunteers. The live webcam was also noted many times. As a student (No.16) noted, “It makes audience more concentrated on peer’s performance because when you make responses such as making comments, give thumbs-up or flowers, you can find them instantly on the big screen.”

Situated learning: As a production-oriented teaching model, the mobile learning here advocates learning by using through conducting well-designed tasks closely related to daily life and career to help students apply knowledge to solve practical problems. When learning is “situated in a specific context and embedded with a particular environment” [6], students’ learning interest will be aroused, and cognitive and transferable skills promoted. With the technical support of mobile
learning system, students can even go further to create a personalized, authentic learning experience, and enjoy the fun from English learning.

Ease of use: As a user-friendly system, Superstar system relieves students’ fear of difficulty, and makes the language learning more fruitful and enjoyable. Most students (83.72%) thought it was easy to use and more (86.05%) expressed their appreciation. As a student (No. 25) said, “At first I disliked it because I thought it would be difficult to operate. When I found it was easy to use, I liked it so much.”

5. CONCLUSIONS

In conclusion, the current study presents some empirical evidences on the significance of applying mobile technology to improve speaking skills of students in vocational colleges. The study found that the proposed mobile learning approach can positively enhance the speaking skills of students, especially their pronunciation and fluency. Effectively breaking through the limitation of space and time, it enables students to be engaged in the ubiquitous and situated learning, enhance their learning motivation and efficiency. Therefore, most students expressed their positive perceptions toward it.

Some limitations of this study should be noted here. First, only a small group of female participants was used here, which limits the generalization of the results. Second, as the experiment only lasted for one semester, an experiment with longer duration would be helpful to reconfirm the findings. At last, a tracking study on the learning process was not considered in this study. These limitations should be addressed in the future study.

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REFERENCES

