

Learning Support for English Learners Using Mobile Phones at a Preparatory School

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Abstract: This research examined what support mentors should give in mobile learning at a preparatory school. A group of students did the exercises in English on mobile phones for four weeks. During the latter half of the period, they were given a set of support based on instructional design principles and prior research. The test results, questionnaires and interviews gave some clues to effective mobile learning: the students found the mobile learning interesting and efficient; what they expected and worried about tended to depend on their proficiency; and the higher-achieving students were better at inventing and sharing their learning styles.

INTRODUCTION

Students at preparatory schools in Japan, preparing themselves for university entrance examinations, need to find ways to make best use of their time. One possible solution is to use their mobile phones, which they are very familiar with (Cabinet Office, 2007), as a supplementary learning tool. The present study examined how to introduce mobile learning at a preparatory school and what kind of support the teachers or mentors can give accordingly, through a four-week experimentation.

MOBILE LEARNING MATERIAL

As a learning content, “Tomi-tan (English course by Mr. Tomita)” in “Keitai-seminar (seminars on mobile phone)” was chosen. The author used “Tomi-tan” as a learner for three months, and judged it applicable from the viewpoint of Instructional Design (Suzuki & Nemoto, 2005).

Keitai-seminar consists of 11 courses, which are designed to provide exercises for university entrance examination (Yoyogi Seminar, 2007). The contents are under the supervision of teachers at Yoyogi Seminar, one of the largest preparatory schools in Japan. Mr. Tomita is one of the teachers. Keitai-seminar is produced by Digital Laboratory, inc. and officially distributed by three major cell phone companies in Japan. Each course costs 210 yen a month as information fee. Tomi-tan is a drill-type English learning content and has about 800 grammar and vocabulary questions. The learners proceed to exercise from mainly two entrances on the top page, “This week’s questions” and “Categorized questions”. Each “This week’s questions” consists of around 15 questions, and “Categorized questions” provides random exercises in a chosen grammatical category, like “The subjunctive mood” or “Adjectives”. The learners also get an e-mail once a week, including a link to “This week’s questions” and a short message from Mr. Tomita.

EXPERIMENTATION

The experimentation was conducted at a local preparatory school in Toyama Prefecture. The school had about 50 students and they were all studying for university entrance examination. There was a wide gap between the academic abilities of high-achieving students and those of low-achieving students. Ten of them agreed to be the subjects: Six higher-achieving students with a deviation value of around 60, and four lower-achieving students with a deviation value of around 40, in nation-wide trial English examinations. They used “Tomi-tan” for four weeks running. The author presented a study schedule of the four weeks and the range of the test questions to the subjects in advance, but let them study beyond the presented range. They took the pretest, midtest and posttest, which respectively covered

the four week study.

In the second half of the experiment, they were given a set of support, which aimed at examining what role teachers or mentors take in mobile learning. One of the supports was “Newsletters”. The author got an idea from “paper-based interaction between students and the teachers”, which proved effective in prior research (Kashiwabara, 2007; Tanaka et al., 2007), and distributed printed newsletters two times, which consisted of the test results and learning behaviors of the subjects. Kijima (2003) pointed out it was effective to have an environment where students could interact, even in self-learning. Based on this idea, the individual learning styles were collected in the mid-questionnaire survey and were fed back on the newsletters. Accordingly, from the viewpoint of instructional design (Suzuki et al, 2005), the author answered questions from them and e-mailed six of them, who had agreed to tell their mobile phone e-mail addresses. The e-mails were intended to have them review well for the tests. After the four week study and the posttest, they answered post questionnaire, and were interviewed individually.

RESULTS

The results of the post questionnaire showed that the subjects were generally in favor of the mobile learning material and the support. All of them answered the mobile learning was interesting and efficient, and that the newsletters and e-mails were “very helpful” or “relatively helpful”. Also in the interviews most of them answered that it was useful and encouraging to know their achievement and others' ways to study. On the other hand, one of them answered she didn't want to be informed of her or others' achievement very much, because she sometimes felt it oppressive to be given her achievement information constantly in her school life.

There was a contrast between the transition of the test scores of the higher-achieving subjects and that of the lower-achieving subjects. As for the higher-achieving subjects, the scores of “first-half” and “second-half” rose to almost the same level (*Figure 1*). Meanwhile, as for the lower-achieving subjects, the scores of “first-half” rose considerably but those of “second-half” remained almost unchanged (*Figure 2*). In the presented study plan, “first-half” was the study range allotted for the 1st and 2nd weeks and “second-half” was for the 3rd and 4th weeks. However, the results indicate that the higher-achieving subjects looked through the whole in early stage and accomplished well-balanced study. The lower-achieving subjects seem to have been conscious of the short-term goal “to finish the first-half before the midtest”, and devoted themselves to covering the range presented in the study plan, leaving “second-half” untouched. In addition, some of them told they had got absorbed in the mobile learning and used the material too much at the beginning of the experimentation. It can be inferred that these attitudes lead to ill-balanced learning, resulting in low retention of what they had learned, which is shown in the drop in the score of “first-half” from the midtest to the posttest.

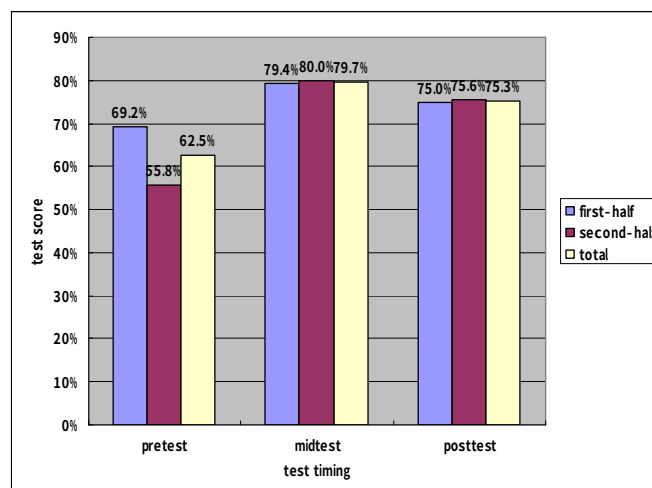


Figure 1: Test scores of the higher-achieving subjects

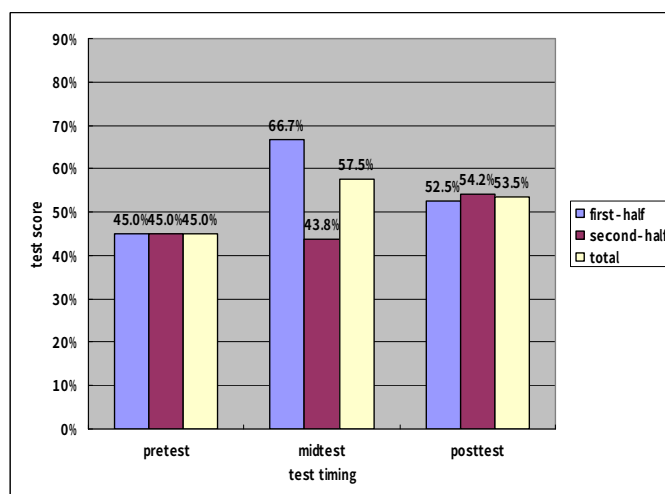


Figure 2: Test scores of the lower-achieving subjects

In the pre questionnaire, the higher-achieving subjects and the lower-achieving subjects answered differently when asked what they expected and what they felt uneasy about in starting mobile learning. Many of the higher-achieving subjects expected that they could make the better use of their time, and that they could learn as informally as in playing games. This shows that they expected much from merits of the mobile tool. At the same time, they answered they were afraid they might be lured to have fun using e-mail or the Internet if they used their mobile phone to learn, which can be said to be a demerit of the tool. On the contrary, the lower-achieving subjects answered that they expected they could learn more English grammar and vocabulary, and many of them answered that they were afraid they might not be able to master the contents successfully or they might drop out in the course of the study. These results suggest that the unique merits of mobile tools, which traditional learning materials don't have, attracted the higher-achieving subjects, whereas the lower-achieving subjects decided to join in the project motivated by getting another chance to study English and yet were in anxiety as to their achievement.

According to the results of the mid questionnaire, all of the six higher-achieving subjects introduced their original learning styles, while only two out of four lower-achieving subjects answered they had their own ways to study. The higher-achieving subjects were more conscious of their own learning styles and they tried more to invent effective ways to study. Furthermore, the post questionnaire and the interview results showed they were better at adopting ways to study of others introduced in the newsletters.

CONCLUSIONS

This study investigated how to realize effective mobile learning and what support mentors should give. Results indicated that the existing mobile learning materials could be reinforced with support from mentors. Setting an environment where students can interact, like having them share their ways to study, is one of the effective supports. The findings suggest that attention should be paid to the students' academic proficiency in deciding what support to give.

In order to introduce mobile learning to the whole school, further examination is needed. Some students may be indifferent to mobile learning or reluctant to use their mobile phone to learn. Additional measures should be taken to get them motivated. Also, instructional design is necessary to relate mobile learning to classwork or self-learning with paper learning materials, since these traditional ways to study account for the most part of the study at preparatory schools.

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