Learning Design in Combination of Mobile Application for Summary Speaking Task by Self-study and Pair Work in a Class

Kae NAKAYA[a,b*], Masao MUROTA[a*]

[a] *Dept. of Human System Science, Graduate School of Decision Science and Technology, Tokyo Institute of Technology, Japan*
[b] *Japan Society for the Promotion of Science, Japan*
*{knakaya, murota}@mr.hum.titech.ac.jp

Abstract: We developed MAST (Mobile Application for Summary speaking Task), which helps learners to practice English speaking by self-study. Using MAST, learners read an English article and speak its summary referring vocabularies of the article that learners record in advance. This research aimed to show effectiveness of combination of self-study using MAST and face-to-face speaking pair-work in an English class. In the experiment, we asked participants to use MAST at home, and in an English class we conducted pair-work based on the task of MAST for four weeks. The analysis result of the experiment showed that the participants might keep practicing English speaking using MAST and they might improve fluency.

Keywords: English speaking, second language acquisition, English class, mobile learning

1.   Introduction

In the age of globalization, the need to acquire English skills is indisputable. We developed a Mobile application for Dynamic Listening and Speaking method (MDLS) to support self-study in speaking English (Nakaya & Murota, 2015) based on DLS method (Shinzaki & Takahashi, 2004). MDLS aimed to increase speaking fluency and acquire vocabularies offering Summary speaking task.

In this research we propose a learning design in combination of self-study by using mobile application based on MDLS and pair work in a class. In order to realize it, we have developed MAST (Mobile Application for Summary speaking Task), which tasks are based on MDLS. The objectives of the learning design are to motivate learners to keep self-study and to offer learners face-to-face English speaking task. This paper aims to show effectiveness of the learning design.

2.   Learning Design

MAST

We developed MAST, which is an Android application, in order to help learners to practice English speaking by self-study. The learning goal is improving fluency. In this research, the targets are undergraduate and graduate students who have achieved a TOEIC level C score (IIBC). The students are supposed to have already learned all basic grammar so that they can read the texts in MAST.

The learning process of MAST is as below. First, learners read an English newspaper article and add some vocabularies (maximum is five) to a list (Figure 1(a) and (b)). Second, learners compose the summary referring the list for one minute and speak it for the next one minute (Figure 2). Third, they reflect on the practice by listening to their recorded vocabulary list and summary.

MAST has two features. First, MAST saves a list of vocabularies that learners intend to refer when they speak the summary. During Summary speaking task, MAST shows leaners to the list of vocabularies (Figure 2) so that they might pay attention to grammatical encoding in composing a sentence. This feature aims to improve fluency. Second, MAST offers a simple summary task. Learners read an English newspaper article with 80 to 150 words, speak the summary twice and then

reflect on their summary. Therefore leaners can finish the task for only fifteen minutes. In addition, teachers have only to select articles in order to offer the task to the learners.

Learning Design in Combination of MAST and Pair Work in a class

In this research, we proposed learning design in combination of MAST and pair work in an English class. In this design, learners practice English speaking by using MAST as homework, and then they conduct pair work based on practice of MAST in a class. This design aimed to offer face-to-face speaking task to MAST users and to motivate them to keep practicing English speaking by self-study.

The process of pair work is as below. First, learners explain summary and impression of some articles in pairs. The articles are ones with which learners have learned by using MAST. Second, a teacher explains some important phrases or contents of the articles. Third, learners modify and speak the summary. Finally, learners evaluate their own motivation for speaking English.
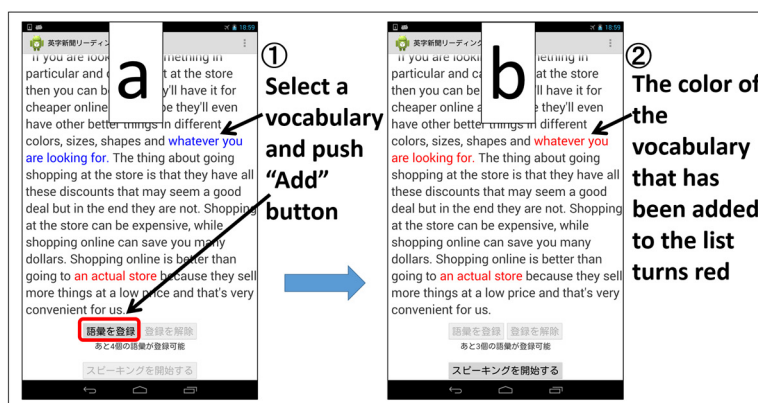

Figure 1. The Screen for reading the Article and adding vocabularies.
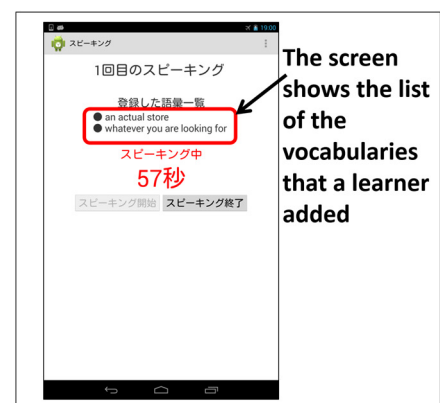
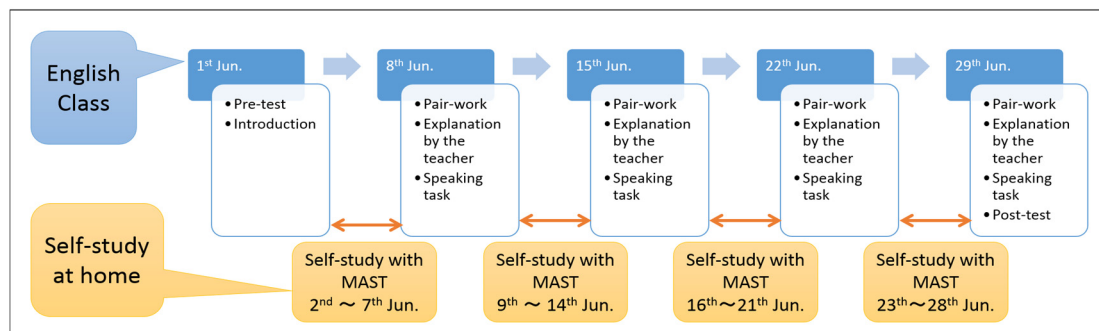Figure 2. The Screen for Speaking the Summary.
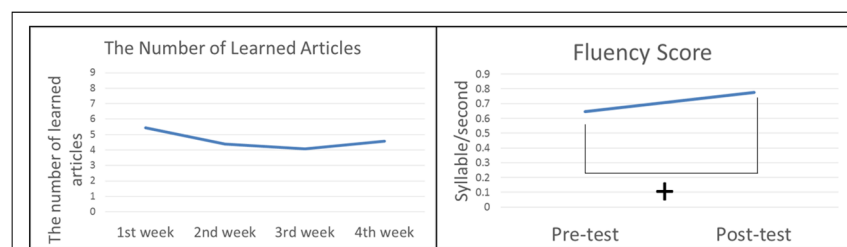

Figure 3. The Schedule of the Experiment.

Figure 4. Analysis Results for the Number of Learned Articles and Fluency Score.

3. Outline of the Experiment

We conducted an experiment in an English class of a Japanese university from 1st June to 29th June, 2015 (four weeks) and the participants were 22 Japanese 2nd undergraduate in a science department.

Figure 3 shows the schedule. In one week, the participants used MAST as homework for six days and on the 7th day, they conducted pair-work in the class. For the self-study, we prepared nine articles every week. The topics are IT, sports, science, and movies and the topic changed every week.

In addition, we conducted speaking tests as pre-test on the first day and as post-test on the last day of the experiment. In the test the participants were asked to explain in English their interests of their major and their experience of part-time job or club activities within three minutes for each topic.

4.   Analysis Result

We analyzed the data about the number of learned articles during self-study terms to evaluate how the learning design could motivate the participants to keep learning. Moreover, we analyzed the data about fluency score of pre- and post-test to evaluate effectiveness for improving fluency. The data of six participants was not included for analysis because they were absent from pre- or post-test.

The number of learned articles is shown in Figure 4. The result of ANOVA did not show statistically significant differences between weeks ($F(3. 45)=1.634$, $p>.1$). The result suggests that the participants might keep the number of learned articles by self-study.

The result of a fluency score is also shown in Figure 4. Fluency score was calculated with syllable divided by spoken time (seconds). This calculation was referred to the way by Kormos *et al.* (2004). The T-test showed marginally differences between pre- and post-test ($t(15)=-2.073$, $p < .1$) and the average score of post-test was higher than the one of pre-test. Therefore we concluded that the learning design might be effective for improving fluency.

5.   Conclusion and Future Work

In this research, we got the following conclusion. (1)We developed MAST and proposed learning design in combination of self-study by using MAST and pair work in a class. (2) Learners might not only keep self-study of English speaking but also improve fluency.

However, we have to improve the contents of MAST and pair-work to motivate learners to practice more because many of the participants practiced once or twice a week for all articles. As for self-study of MAST, we will offer more variety of speaking tasks. As for pair-work in the class, we will re-design more interactive tasks between students.

Acknowledgements

References

Nakaya, K. & Murota, M. (2015). The Effectiveness of Mobile Application for Dynamic Listening and Speaking Method in Self-study, Proceeding of 45th Annual Conference of The English Language Education Society of Japan, http://www.decode.waseda.ac.jp/announcement/documents-for-2015-03-07-08/KaeNakaya.pdf (Aug. 7th, 2015 accessed).

Shinzaki, R. & Takahashi, Y. (2004). Make hidden English skills appear. (Memutta eigo wo yobisamasu in Japanese). Hamano Publisher.

IIBC (the Institute for International Business Communication). PROFICIENCY SCALE, http://www.toeic.or.jp/library/toeic_data/toeic/pdf/data/proficiency.pdf (Aug. 21st, 2015 accessed).

Kormos, J. and Denes, M. (2004). Exploring measures and perceptions of fluency in the speech of second language learners, *System, 32*(2), pp145-164