The Effect of the TOEIC Drill-Based E-learning: A Case Study of TOEIC First Year Preparation Course

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ABSTRACT

This paper examines the effectiveness of an in-house developed e-learning system for TOEIC Test at Otaru University of Commerce. In order to see how the system helps the students to improve their listening and reading scores throughout the Spring 2014 semester, Two-way repeated measures ANOVA is conducted to three tests: before they start the system (Pre-Test); at the middle of the semester (Mid-Test); at the end of the semester (Post-Test). The findings using 206 first year students show that the listening score gradually improves; the reading score decreases, on the other hand. The extensive listening practice may affect the improvement of the listening score, while the reading practice for TOEIC in the system does not help them effectively for some possible reasons. This research will give an effective way of improving TOEIC scores through the e-learning system.

INTRODUCTION

The Minister of Education, Culture, Sports, Science, and Technology (MEXT) in Japan has admitted that Japanese people are now in contact with the global market place and English is the common international language (MEXT, 2003). The Test Of English for International Communication (TOEIC) is a major listening and reading tests of the international language — English — for business people to meet the demand of English ability in order to survive in such a global market (Yomiuri Shimbun, 2012). Seen from the total test takers in 2013, the numbers have been rapidly increased year by year; with numbers growing from 1.7 million in 2010 to 2.2 million in 2011. According to the report on the average score for new employees, the average score on TOEIC was 500 out of 990, and the number of test takers was 30,212 from 791 companies (IIBC, 2014a).

Many companies also try to meet the demand of English in globalization and require the applicants to get a high TOEIC score to gain reasonably competitive workforces in such globalization (Kamikuri, 2011). For college students, in order to obtain employment from major Japanese companies, English is often a necessity (Kikuchi, 2011), and many of

the Japanese universities give the students opportunities to study for the TOEIC inside and outside of the classrooms. Some of the universities currently set a requirement to get a reasonable TOEIC score for students to advance to the next grade or to study abroad (IIBC, 2014b).

In response to the movement, many universities attempt to give a variety of opportunities for the students to get a higher score on the TOEIC test, such as offering extensive TOEIC preparation courses and external learning opportunities by e-learning. In ELT (English Language Teaching), e-learning is known as one of the effective ways to provide extended learning opportunities for the students outside the classrooms (Coryell & Chlupb, 2007). At Otaru University of Commerce (OUC), in-house drilled-based e-learning has been in place since 2011 (see Farouck, 2011 for the detail information). This in-house drilled based e-learning gives extensive opportunity for the students to practice for the TOEIC test inclass and outside of the classroom. Also, the contents of the questions in the system were created to be familiar with the students, such as using examples of their city, university, and other things that they share in their community; however, there has been little chance to examine how this in-house e-learning may affect the students' TOEIC score. This paper aims to examine how this in-house developed drill-based e-learning system may affect their listening and reading scores throughout semester.

METHODS

In order to investigate the effectives of this e-learning system, three TOEIC tests were conducted at First Year TOEIC Preparation Course (English ID). This course is one of the requirement courses for all first-year students and more than 200 students register for the course every semester. The nature of the course is to have the students finish two lessons in the e-learning system in 90 minutes per week, using a classroom computer. If the students cannot finish the lessons during the class, they have to complete each lesson on their own by the following week. The tests were conducted during the first week of the Spring semester in 2014 before they started the system (Pre-Test), at seven weeks into the semester in June (Mid-Test), and during the last week after the e-learning was completed in August (Post-Test). Pre-Test and Mid-Test were conducted by using Half Test—the number of the questions and time were reduced by half—and Post Test was conducted by using TOEIC IP (Institutional Program) Test.

The following questions guided this investigation: 1) Does the in-house developed drill-based e-learning affect their listening scores on TOEIC?; 2) Does the in-house developed drill-based e-learning affect their reading score on TOEIC? 3) Do the listening scores and the reading scores correlate with each other?

ANALYSIS

The dependent variable in this study was subjects' score on the Pre-Test, Mid-Test, and Post-Test. The independent variables were listening and reading scores. Table 1 summarizes the descriptive statistics for the two independent variables and the interaction effect. Examination of the data for violations of normality shows that all distributions are within acceptable levels; skewness ranging within -1 and +1 values (George and Mallery, 2009).

Table1: Descriptive statistics for Pre-Test, Mid-Test, and Post-Test of each score

Test	Skills	Mean	SD	N
Pre-Test	Listening	55.7	1.17	206
	Reading	70.1	1.03	206
	Total	62.9	1.31	412
Mid-Test	Listening	52.4	1.08	206
	Reading	68.2	0.97	206
	Total	60.3	1.30	412
Post-Test	Listening	57.2	1.03	206
	Reading	50.6	1.09	206
	Total	53.9	1.11	412

In order to see if the observed differences in Means between the levels of the independent variables were statistically significant, systematic, and not due to a change, a two-way repeated measures Analysis of Variance (ANOVA) was performed at *alpha* = .05. A two-way repeated measures ANOVA was deemed appropriate in view of the fact that the study included two independent variables and one dependent variable.

A Two-way repeated measure ANOVA (2 skills x 3 tests) indicates that for the criterion variable there is a significant difference between the listening and the reading scores, $F(2, 280) = 18367.742$, $p<.01$. $\eta^2 = .978$. The listening and reading scores were statistically significant, and it shows that the listening scores gradually increased after a slight decline at the Mid-Test; the reading scores slowly decreased as time passed. There was a significant difference in scores over time as well (Pre;Mid;Post Test), $F(2, 820) = 165.524$. $p<.01$. $\eta^2 = .288$. The interaction between skills and time was also statistically significant, $F(2,820) = 304.732$. $p<.01$. $\eta^2 = .426$. Therefore, Simple Main Effect test was conducted and the results showed that all pairwise group comparisons were significantly different from each other (Pre: $p<.01$;Mid: $p<.01$;Post: $p<.01$). (see Figure-1 next page).

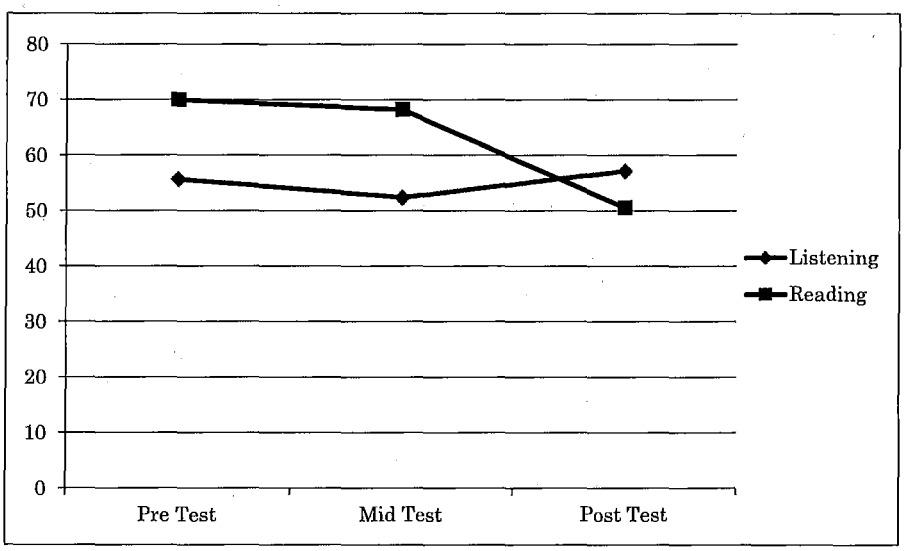

Figure 1:The interaction between Listening and Reading scores.

The interesting note is that the average scores of listening are relatively lower than the reading scores by the Mid test; however, during the second and the third test, each of the score has been converted in their positions gradually. The results of the data will be discussed further in the next section.

DISCUSSIONS & CONCLUSIONS

As seen from the data shown above, the listening scores dropped at Mid-Test moderately though, the last post-test was slightly higher than the first and the second test. This suggests that the extensive listening practices through the system may have an effect on their improvement of listening comprehension as time passed. Before they started the system, they did not have much chance to listen to English in their daily lives since they are in an EFL (English as Foreign Language) environment. In the EFL environment, English class is an important resource for the learners to encounter the target language because Japanese language is *de facto* the only official language in Japan. As Lynch & Menndelsohn (2002) state, listening for detail is important for the improvement of the learners' listening comprehension, so the intensive listening practices in the system would provide a good effect on their listening skills. Also, according to Tsui & Fullilove (1998), bottom-up listening — focusing on the sounds of English — is important for the test performance. In this sense, the extensive drill-based listening gave an impact on the development of their listening comprehension.

On the other hand, the reading skills gradually dropped after the four months of training through the in-house e-learning. This would be suggesting that the students could not make use of the systems and/or the contents of the e-learning did not

effectively help the students to develop their reading skills. In fact, there are some potential issues that might account for students' low performance in the reading activities. 1) Some of the reading contents in the system do not follow the format of the actual TOEIC IP Tests. For example, the length of reading comprehension questions in the system are relatively shorter than the actual tests and the Scrambling practices do not exist in the actual TOEIC tests. 2) The students, after their entrance examinations for college, did not study English as much as they used to and have concentrated on other studies. This results in reducing the students' total time of exposure to English every day. 3) The contents of the reading materials are not familiar to the students. Carrell & Wise (1998) states that the background knowledge in the reading materials would foster the students' understandings. The most of the reading materials in actual TOEIC IP Test includes a lot of business settings. The business contents of the reading are not familiar to the students because they have rarely encountered the settings in their daily lives.

Having drawn the conclusions of this study, it is important to illustrate the limitations of this research. The first limitation is that the degree of difficulty of Pre and Mid Test may be different from Post Test because these two tests were chosen from atextbook. Also, the time of Post Test was twice as long as the first two tests. This long exam time may have caused a decline of their concentrations during the test. Aide from these potential limitations, the reading drills in the system need to be analyzed further to give the students more effective improvement on their reading scores.

This study is preliminary research for the effectiveness of the in-house developed drill-based e-learning system. For future research, the interaction of students' motivation for the system and their scores needs to be analyzed to see how much their learning autonomy may have an effect on their scores. Also, more effective way of improving their English comprehension linking to in-class activities should be considered. In so doing, the students will be provided with a hybrid learning environment where they can improve their English comprehension outside of the classroom along with the in-class activities. This blended learning — in-class activities and outside of e-learning—sheds light on a new way of learning English in the twenty first century.

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