ER as a Virtual ESL Environment for EFL Learners

HITOSHI NISHIZAWA and TAKAYOSHI YOSHIOKA

Toyota National College of Technology

We would like to propose extensive reading (ER) as an ESL environment for EFL beginners and intermediate learners. ER keeps learners' minds in a virtual ESL environment, letting them think, feel, and have experiences in English through the readings. It has vital importance in Japan where the grammar-translation approach dominates English lessons, and learners always translate English texts word-to-word into Japanese sentences for comprehension. One million words is a practical amount of experience necessary to convert their behaviors. The assertion is based on a long-term ER program that has been conducted in a Japanese technical college. The teenage students have weekly fifty-minute sustained silent reading (SSR) sessions for six consecutive years. The students are typical EFL learners and don't use English outside the lessons. Their fluency is measured by TOEIC improvements over the long term. ER was also effective as preparation for, and/or for following-up after ten-months of studying abroad.

Although ER was considered a worthwhile approach in ESL/EFL programs (Day & Bamford, 1998), its influence on English education in Japan was/is still limited. It does not appeal to the majority of Japanese English learners, and is unable to affect a change in their learning styles from traditional grammar translation. One of the severe disturbances was the lack of data. Teachers and learners do not know which books they should read or how much they should read to improve their language skills. The difference between recommended readability levels in ESL settings and Japanese EFL setting (Nishizawa & Yoshioka, 2011) also misguided Japanese EFL learners toward translations, but not to readings.

The situation has been improving gradually since Sakai (2002) proposed one million words as a milestone for ER, with Sakai and Kanda (2005) and Takase (2010) proposing detailed methodologies for conducting SSR programs, and Furukawa et al (2005,2007,2010,2013)

publishing a complete book-guide and readability scale called *Yomiyasusa level* (YL) for Japanese EFL learners. Some schools and colleges along with private learning groups have started ER programs. In some areas, public libraries have set up special bookshelves of easy-to-read English books for lifelong learning of adult EFL learners.

However, there were still few ER programs where the average students actually read this amount. Furukawa (2011) reported the average reading amount of 12th graders was 1.18 million words in 6 years of his ER program. Another ER program at a college of technology took 4 years for the median reading amount of the students to reach 0.69 million words (Nishizawa, Yoshioka, & Fukada, 2010). Both programs had durations over several consecutive years and the students' outcomes were measured by standard tests.

Another practical aspect was the combination of ER with studying abroad. Because ER improves students' fluency in reading and listening, it may become an effective preparation or follow-up for studying abroad. This paper will report the effect of such combination using TOEIC tests as the measure of English fluency.

Research questions

We would like to answer the following questions in this paper. The first question is 'Is one million words a practical threshold for Japanese EFL students to feel the improvement of their English fluency?' We used TOEIC to measure the English fluency of the students, and assumed their initial scores were lower than 320 because the average TOEIC score of 3rd year students were 319 (N = 470, 2007 - 2009) before introducing the ER program. TOEIC 600 will be the practical target TOEIC scores of Japanese EFL beginners and some intermediate learners.

The second question is 'Is ER a practical approach for the preparation and follow-up for studying abroad? How much reading is necessary for them?' We tracked the students' reading histories and TOEIC scores before and after their studying abroad for years.

Details of the ER program

A 6-year ER program was conducted at a college of technology where the majority of students were average EFL learners. The program used a 5-year foundation course that had a cohort

of 40 students aged from 16 to 20, accompanied by an additional 6th and 7th year advanced course that had 5-10 students per cohort. The program started ER lessons on April 2004 in 6 years starting from the 2nd year of the foundation course simultaneously, and it added an ER lesson to the 1st year of the foundation course in 2006.

16 students completed the 6-year ER program in 2011 and 2012, and six students completed the 5-year ER program in 2009 as shown in Table 1. Former students also participated in ER programs of shorter duration from 2004 to 2008. During the program, the students attended compulsory English lessons taught traditionally, and additionally attended weekly ER lessons for 30 weeks each year. Each of the lessons was a 45-minute SSR. The lessons were conducted in the college library, which had a large collection of easy-to-read English books including GR for ESL/EFL learners and picture books and leveled readers designed for English-speaking children in the U. S. The students were strongly recommended to borrow books from the library for their out-of-class readings. The students read at their own paces, without referring to dictionaries, and recorded their reading histories in logbooks. The logbooks were collected regularly before the lessons, and then returned at the beginning of the next lessons with advice from the teachers added to them. The student and teachers could always refer to the student's reading history because the logbook was inherited to the next years.

Table 1. Duration of the ER program and Total Words Read by 6th-year Students

Academic year	2004	2005	2006	2007	2008	2009	2010	2011	2012
Duration	2 years		3 years	4 years	5 years			6 years	
Number of 6th-year students	7	5	8 (+1[*1])	7 (+3[*1])	6	8	6 (+4[*1])	6	10
Total words read [*2] (Med.) Min.-Max.	(0.26) 0.09-1.3	(0.45) 0.3-0.6	(0.45) 0.1-6.0	(0.66) 0.4-1.2	(0.60) 0.4-3.1	(0.75) 0.6-10	(1.26) 0.4-15	(1.35) 1.0-2.1	(1.20) 0.9-1.6
YL[*3] and text length of the reading test	1.6 4,600	1.4 3,700	2.6 7,200	2.6 9,100	2.6 8,000	2.6 6,300	2.8 7,500	3.2 8,300	3.2 8,000

*1 Number of students who had stayed in English-speaking countries. Their data were excluded from the study.

*2 Million words.

*3 YL is a readability scale optimized for Japanese EFL learners (Furukawa et.al., 2005, 2007, 2010, 2013). Typical YL is 1.0 for Penguin Readers Level 1 (PGR1), 1.4 for Cambridge English Readers Level 1 (CER1), 2.0 for Oxford Bookworms Stage 1 (OBW1), and 2.8 for Macmillan Readers Elementary (MMR3).

The ER program had the duration of two years in 2004 and 2005, and increased the duration year by year. The median total words read by the students was less than 0.5 million words until 2006, increased to more than 0.6 million from 2007 to 2008, and exceeded a million in 2010 and after. Reading more than a million words of English texts is becoming quite an ordinary thing to do for the students of the ER program, now.

Twenty-two 6th-year students, excluding four students who had studied in English-speaking countries for 10 months, completed the 5 or 6-year ER program in 2010, 2011 and 2012, and their median total words read was 1.2 million. Most of them passed the reading tests at the end of the program, which required them to read a new English text of 7,700 words or longer at a reading speed of 100 words/min. or faster. After reading the text, they had to answer ten questions related to the story with 60% or more of the answers being correct. They aren't allowed to take memos when they read, and aren't allowed to re-read the text when they answer. The readability levels of the texts for the reading tests are the same as Macmillan Readers Elementary (MMR3: YL2.8) or Oxford Bookworms Stage 3 (OBW3: YL3.2).

Improved TOEIC scores of fast readers

Some enthusiastic students read far more than the average students in the ER program. They mainly read out-of-class on their own. 45 students of various ages read more than 1.5 million total words of easy-to-read English texts over the 2005 – 2012 academic years and took TOEIC tests (Figure 1). We could estimate the amount of ER experience, which is comparable to studying abroad in TOEIC scores. We selected 1.5 million words for this comparison because TOEIC scores tend to increase abruptly at students' total words around a million, and after that, they increase linearly at the rate of 40 – 50 points per a million words until they reach 800 (Itoh & Nagaoka, 2008).

TOEIC scores of the students who have read more than 1.5 million words of English texts extensively during the ER program in 2005 - 2012. No one stayed in English speaking countries for or more than three months in this group.

TOEIC scores of the students who stayed in English speaking countries for ten months. The test was taken just after their returns in 2005 -2010. No one has prior ER experience.

Average 540 (N = 29) 3rd - 4th year students

Average 625 (N = 16) 5th – 7th year Students

Average 606 (N = 88) 3rd year students

Average total words read:

2.6 million words   1.9 million words

TOEIC score

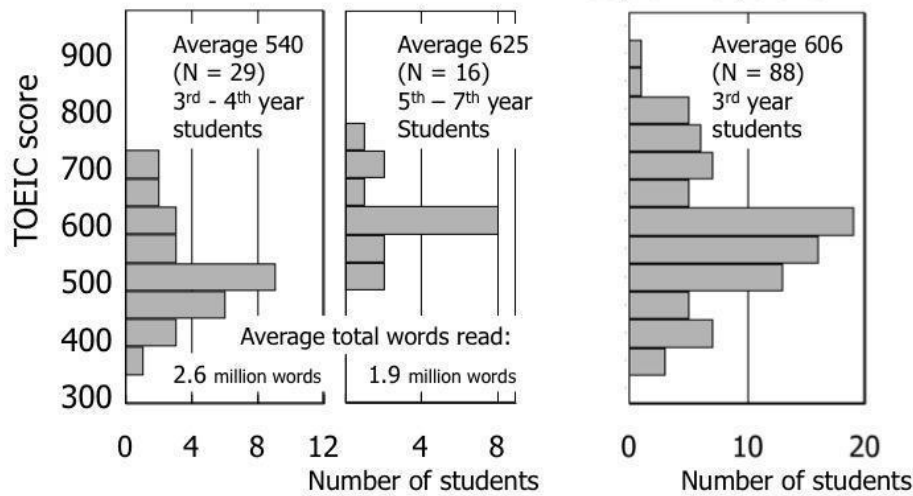Number of students   Number of students

Figure 1. Comparison of TOEIC scores of the students who read extensively more than 1.5 million words with the scores of the students who studied abroad for ten months

We also separated the ER students into two groups because their TOEIC scores were apparently different to each other. The younger students (the left graph of Figure 1) had read 2.6 million words on average in two to four years, but their TOEIC scores were 85 points lower than the elder students, who had read 1.9 million words on average during two to six years (the middle graph of Figure 1). The elder students' average TOEIC score was even higher than the one of the students who stayed in English speaking countries for ten months (the right graph of Figure 1). It was mainly because there was no student who scored lower than 500 in this group.

There were 10 students whose TOEIC score exceeded 700. Their average TOEIC score was 739, the average total words read was 3.8 million words in two to seven years. Their reading logs tell us that it is hard to read this amount required and it is only achievable when reading itself becomes enjoyable. At this stage, literature for English speaking children often helps EFL learners to enjoy reading.

Improved TOEIC scores of average students

Improved English proficiencies of average students were also measured by TOEIC tests. The center graph of Figure 2 shows the moving-average TOEIC scores of the students who completed the ER program in the year and in the previous two years. For example, the data of 2012 along the horizontal axis shows the average of 22 students who completed the program in the years 2010, 2011, and 2012. The data was compared with the national averages of Japanese university students of all majors, university students who majored in English, and students of colleges of technology.
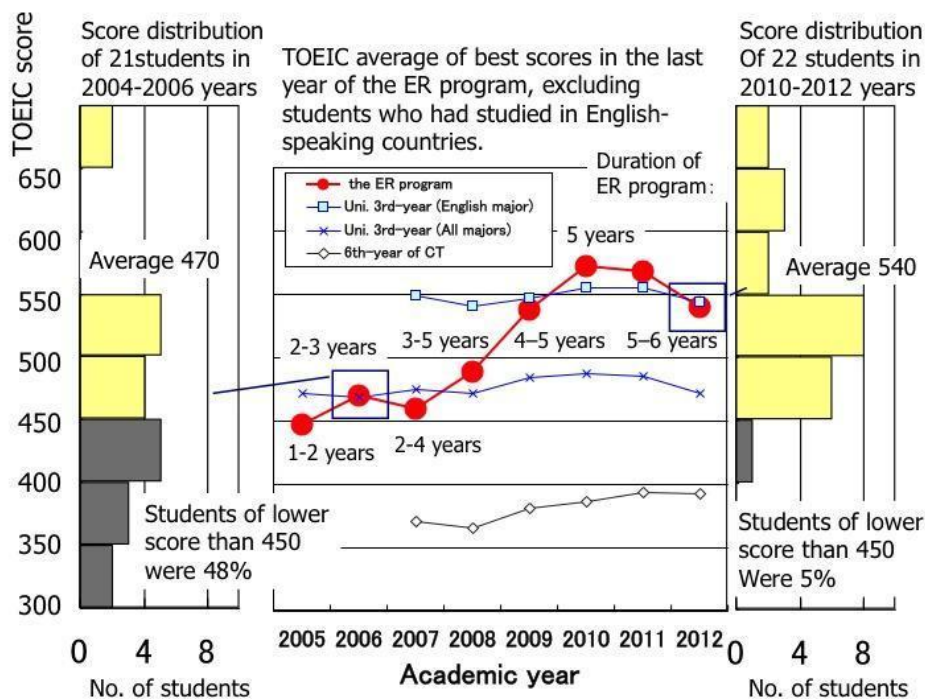

Figure 2. TOEIC scores of the 5 or 6-year ER program

The average TOEIC score of the students in the ER program increased as the duration of the program elongated, and the change exceeds the yearly fluctuations of national averages. The students who completed the ER program of 2-3 years' duration in 2004, 2005, and 2006, had an average TOEIC score of 470, which is higher than the national average of 6th-year students of colleges of technology (371: ETS, 2008) and is as high as the national average of 3rd-year university students of all majors (469: ETS, 2007). The students who completed the 5 or 6-year ER program in 2010, 2011, and 2012, showed a higher average score of 540, which is as high as the national average of 3rd-year university students majoring in English (544: ETS, 2012), who were supposed to have more English lessons. We would like to stress that the difference of the 2004-2006

students and the 2010-2012 students are only three credits of SSR lessons and accompanying ER experience of reading 0.7 million more words of easy-to-read English books.

The left graph and the right graph of Figure 2 shows the score distributions of 2004-2006 students and 2010-2012 students respectively. The comparison tells that the 5 or 6-year program not only improved the proficiency of average and higher performers, but also of the lowest performers as in the case of fast readers.

ER as preparations and/or follow-up for studying abroad

As we expected, students improved their TOEIC scores by reading one million-words of ER before and/or after their studying abroad (Nishizawa, Yoshioka & Itoh, 2013). We updated the data and collected TOEIC scores of 138 Japanese students who had stayed in English speaking countries for 10 months and returned during the 2005 to 2012 academic years. The students were divided into three groups; 88 students who went abroad without prior experience of ER, 39 students who had ER experience but read less than 0.5 million words before going abroad, and 11 students who had ER experience of more than 0.6 million words before going abroad. Their average TOEIC scores just after their returns were 606, 613, and 727 respectively, and the average of the third group differed significantly ($t = 0.004$) from the one of the first group even with its small sample size. It suggests the potential advantage of one million-words of ER as preparation for studying abroad. We currently suggest that enthusiastic students read 3 million words before their studying abroad so they have enough fluency to start their everyday life there and they can have more meaningful language experiences during their limited stay. The suggestion is based on the 2.6 million words of Figure 1 and one of the students' examples, who had actually read 3.4 million words extensively before his studying abroad and scored 920 just after his return.

We also measured the influence of ER as follow-up (Figure 3). 19 students had resumed ER after their studying abroad, and their annual TOEIC scores were compared with the TOEIC scores of all 138 students (The left-most graph of Figure 3) measured just after their return from English-speaking countries.
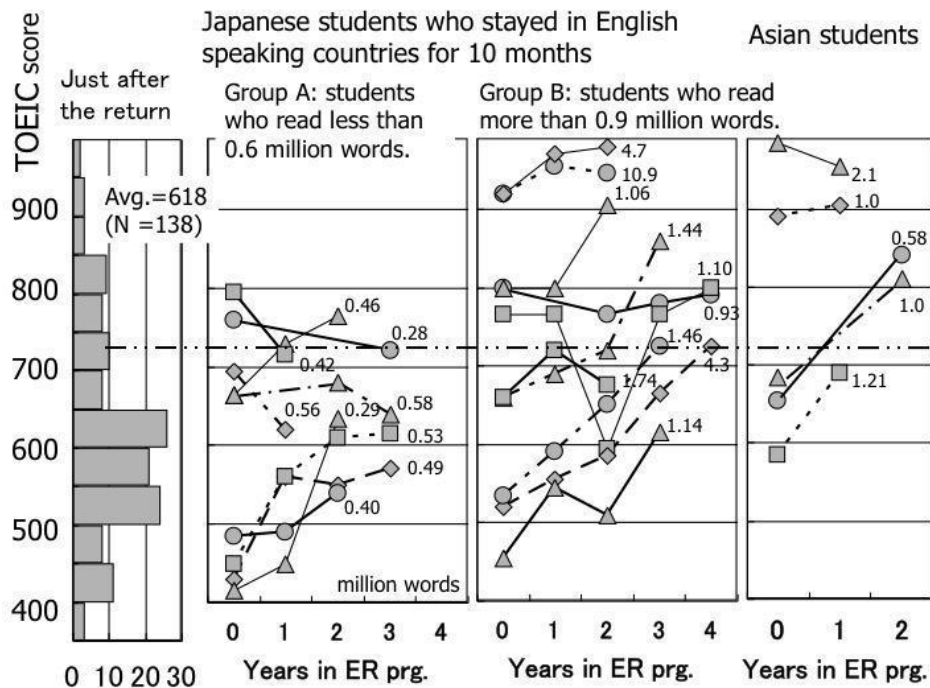
Figure 3. Students' TOEIC scores in the ER program after their studying abroad

When their TOEIC scores had been lower than the average (618) upon return, all the students increased their TOEIC scores during the ER program. The final scores of the students, who read less than 0.6 million words, stayed lower than the average, though.

On the other hand, the score increases of the students whose TOEIC scores had been higher than the average upon return seemed to depend on how much they read during the ER program after their returns. Nine students of group A (The second to the left graph of Figure 3) read less than 0.6 million words during their one to three years in the ER program. There were five students whose scores had been higher than the average upon return, but four of them got lower TOEIC scores during the program. At the end of the ER program, only one out of nine student scored 730 or higher.

Ten students from group B (The second to the right graph of Figure 3) read more than 0.9 million words during their two to four years in the ER program. Five students had scored from 618 to 860 just after their returns, three of them kept their scores unchanged during the program, and two increased their scores more during the program. At the end of the program, eight out of ten student scored 730 or higher. There were also two students whose TOEIC scores had been higher

than 900 upon return. They read more than four million words in their two years of the program to keep or increase their scores.

Three Asian students whose initial TOEIC scores had been lower than 730 also increased their scores by reading one million-words in ER in their one or two years of the program.

This data suggests that there are thresholds of reading amount necessary to keep or improve students' English fluency in EFL settings. Less than 0.6 million words of ER might be enough to keep or improve lower fluency level of TOEIC 600 or under if the students have 10-months experience of staying in English speaking countries, and thus they are free from translation habit. A million words of ER is necessary to keep or improve intermediate fluency level of TOEIC 600 – 860, and several million words or more reading may be necessary if the students hope to improve their fluency higher than TOEIC 860 only through ER in EFL settings. Literature for English-speaking young adults and popular casual novels often help EFL learners continue their reading with pleasure.

Conclusion

Extensive reading helps EFL learners of a wide range of fluency levels. Starters are surprised to recognize that it is really possible to read English texts without translating them into their mother language if the texts are easy enough. Total words read of a million words becomes the first target for beginners to obtain the fluency for short conversations of casual travellers with the TOEIC score of 470, and our practice showed it is achievable by adding a three-year ER program with weekly 45-minutes SSR lessons. If we extend the duration of the ER program to six years, a fair amount of students will read 2 million words total of easy-to-read English texts with the help of children's literature and reach the fluency for everyday life with the TOEIC score of 600, which can be obtained with a 10-month stay in English speaking countries. Extensive reading of this amount also becomes a valuable preparation for more meaningful studying abroad. Enthusiastic students may read 4 million words of English texts, which may include literature for young adult and popular casual novels, and gains in fluency to an intermediate level with a TOEIC score of 730. Studying in English speaking countries may enhance the improvements, but the gained fluency is not easy to keep after coming back to Japanese EFL settings. ER as a virtual ESL environment in learners' minds is one of the successful and practical approaches of improving learners' English fluency in EFL settings.

Hitoshi Nishizawa is a Professor of the Department of Electrical and Electronic Engineering at Toyota National College of Technology. His research interests include computer-assisted learning in mathematics and extensive reading/listening in English. He has been assisting the college library and some local public libraries to set up special shelves of easy-to-read English books for ER. Email: nisizawa@toyota-ct.ac.jp

Takayoshi Yoshioka is a Professor of the Department of Electrical and Electronic Engineering at Toyota National College of Technology. His research interests include computer-aided educational technology and extensive reading/listening in English. He started the ER program in 2002 at the college, and has been developing tadoku navi: a web-based assistant system for remote EFL learners to search and find optimum books for ER. Email yoshioka@ toyota-ct.ac.jp

References

Day, R. R., & Bamford, J. (1998). *Extensive reading in the second language classroom*. Cambridge: Cambridge University Press.

ETS (2007, 2008, 2013). *TOEIC Test Data & Analysis 2006, 2007, 2012*. Tokyo: Educational Testing Service.

Furukawa, A. (2011). Seven keys to a successful extensive reading program. *Proceedings of the First Extensive Reading World Congress*, #66.

Furukawa, A., Kanda, M., Mayuzumi, M., Miyashita, I., Hatanaka, T., Sato, M., & Nishizawa, H., (2005, 2007, 2010, 2013). *Eigo tadoku kanzen book guide* [Complete book guide for extensive reading in English]. Tokyo: CosmoPier.

Itoh, K. & Nagaoka, M. (2008). *Eigo tadoku ni okeru tadoku gosuu to Eigo un-yo noryoku koujo kouka tono kankei* [The relation between improved fluency and total words read in an ER program], *Proceedings of Kosen Kyoiku*, 195-196.

Nishizawa, H., Yoshioka, T., & Fukada, M. (2010). The impact of a 4-year extensive reading program, *JALT2009 Conference Proceedings*, 632-640.

Nishizawa, H., & Yoshioka, T. (2011). Effectiveness of a long-term extensive reading program: a case study, *Proceedings of 43rd annual meeting of the British Association for Applied Linguistics*.

Nishizawa, H., Yoshioka, T., & Itoh, K. (2013). *Kougaku-kei gakusei no Eigo un-yo noryoku kaizen* [Improving engineering students' English proficiency with international exchange activities and extensive reading], *Journal of Japan Society of Engineering Education, 61*(1), 147-152.

Sakai, K. (2002). *Kaidoku hyakumango* [Toward one million words and beyond]. Tokyo: Chikuma shobo.

Sakai, K., & Kanda, M. (2005). *Kyoshitsu de yomu eigo 100 mango* [Reading one million words in the English classroom]. Tokyo: Taishukan.

Takase, A. (2010). *Eigo tadoku tacho shido manual* [Teaching manual of extensive reading and listening]. Tokyo: Taishukan.