

ESTABLISHING AN EXTENSIVE READING PROGRAM: CHALLENGES AND BENEFITS

Julia Kimura, Naomi Kamimura-Backes,
and Keiko Hattori

Abstract

Extensive reading is a part of many foreign- and second-language curricula, and its documented benefits include increased reading rates, which have been linked to gains in reading comprehension. It has also been shown that learners actually find reading in a foreign or second language pleasurable; some learners even find it more pleasurable than reading in their first language. In this study, we explore changes in reading speed and comprehension over one semester, in addition to what extent students find voluntary extracurricular extensive reading to be beneficial. We show that students majoring in the life sciences do see benefits in participating and see increases in both reading speed and comprehension. While we have shown that offering voluntary extensive reading during the lunch hour is indeed beneficial, we must now find effective ways of promoting the program so that more students are aware of the existence of the program as well as the benefits that participation can bring.

Key Words: extensive reading; SRA; authentic materials; learner attitudes

Since April 2010, both undergraduate and graduate students at the Faculty of Biology-Oriented Science and Technology have had a place to come and practice their oral and aural English skills in order to supplement what they had acquired in their English classes and to also learn about cross-cultural communication. Since 2012, students have been able to supplement their English classes by participating in voluntary extensive reading during the lunch hour. (For a more thorough description of these activities, see Hattori, 2013.) By their third year, many students are required to read scientific papers in English for classes related to their majors, and sometimes have to write abstracts in English. When they enter the workforce, our graduates can expect to read manuals or perform basic workplace functions in English. In order to help these

future engineers and scientists participate more in their respective discourse communities, we have to bridge the gap between their current abilities and what they will be expected to do in order to graduate and go on to work in the sciences. In this paper we evaluate the benefits of establishing an extra-curricular extensive reading program using authentic materials, and find out about students' challenges: factors that mitigate participation in our voluntary reading program.

One way in which we can close the gap between students' current reading proficiency and their desired or expected proficiency is to provide them with engaging and authentic materials. Starting in the 2012-2013 academic year, we have been encouraging all our students to read self-selected materials at lunchtime at their own pace. We call this activity Lunchtime Reading. On weekdays, students come to the Multiple Purpose Room during the lunch hour and read Science Research Associates materials as well as graded readers or foreign magazines.

A well-balanced language learning curriculum will address the four strands of learning: comprehensible meaning-focused input, form-focused instruction, meaning-focused output, and fluency development (Nation 2001, 2013; Nation & Webb 2011). Extensive reading primarily addresses meaning-focused input as well as fluency development. Extensive reading involves reading a large quantity of text in order to gain a general understanding of the text (Richards & Schmidt, 2002). Extensive reading is usually contrasted with intensive reading. While the aim of intensive reading is also comprehension, it involves the deliberate study of short texts and paying attention to language features including vocabulary, grammar, and discourse of the text (Nation, 2001). While intensive reading certainly has its place in the four strands of a well-balanced foreign language curriculum, the advantages of extensive reading over intensive reading include letting learners read at their own level and pace, and having them select their own reading materials, as opposed to having them assigned as they would normally be in an intensive reading class. This freedom of choice promotes autonomous learning. In addition to promoting autonomous learning, as demonstrated by Beglar et al. (2012), self-selected reading is an effective way of developing higher reading rates with higher levels of comprehension. Following this trend, it is our hope that our students will move from learning to read to reading to learn.

Extensive reading and its benefits have been well documented. One of its biggest champions, Stephen Krashen, is an advocate of the Comprehension Hypothesis. Briefly,

according to Krashen (2004), we acquire language only when we understand what people tell us and what we read, not when we learn and practice grammar rules. In addition, extensive reading has also been shown to develop both sight vocabulary and general vocabulary knowledge (Day & Bamford, 1998). However, while breadth of vocabulary knowledge has been shown to improve (Pitts, White, & Krashen, 1989), the same cannot be said for depth of knowledge (Nation & Webb, 2011). One additional benefit of extensive reading is that it can positively affect reading rates (Beglar, Hunt, & Kite, 2012).

A great deal has been reported about extensive reading in both English as a Second Language (ESL) settings (Benson, 1991), and English as a Foreign Language (EFL) settings here in Japan at both the secondary level (Takase, 2007) and at the tertiary level (Mason & Krashen, 1997; Mori, 2004). In addition, to the best of our knowledge, there is a lack of literature on learners who participate in extended reading programs on a voluntary basis. We are interested in finding out how beneficial undergraduate students majoring in the life sciences find participating in voluntary extensive reading over the lunch hour.

The Present Research

Research Questions

The purpose of the present study is to investigate the benefits of voluntary extracurricular reading that students majoring in science do during weekday lunch hours. Specifically, we investigated the following research questions:

- 1 Does participating in Lunchtime Reading affect our learners' reading and comprehension rates?
- 2 To what extent do our learners find participating in Lunchtime Reading to be beneficial?

We answer these questions quantitatively. The first question can be answered by comparing reading rates recorded at the beginning of the semester with reading rates at the end of the semester. Since participants record and mark their answers to comprehension questions, this data can indicate their level of reading comprehension. Furthermore, since reading rate is associated with comprehension, we will use reading rate for a proxy of comprehension, which we will justify later in the paper. The latter question is answered with survey data on a 6-point Likert scale. We predicted that

participants who read the extensive reading materials would be reading just as fast, if not faster than they were at the beginning of the semester. Most students selected Science Research Associates (SRA) materials. For the purpose of this study, therefore, we focus on their reading speed, comprehension rates, and attitudes towards these materials. In the future however, we may want to compare the SRA series to other materials. For our immediate research purposes, however, SRA materials are quite amenable because they are basically controlled of readability and length.

It probably sounds logical to say that reading speed and comprehension are inversely correlated, meaning that an increase in reading comprehension will accompany a decrease in reading speed, and vice versa. Though it may sound counterintuitive to some, reading faster actually correlates positively with comprehension (Bell, 2001). Reading faster allows learners to process language more rapidly thus leaving more room in working memory for higher cognitive tasks.

In answer to our second research question, we predicted that students would see the value in participating. Our participants recorded their reading speeds and comprehension scores in logs throughout the semester so our participants were quantitatively monitoring their own day-to-day progress in terms of reading speed and comprehension. We fully expected them to become more confident and motivated learners by the end of the semester because they would be able to see tangible improvements for themselves every day.

Methods

Setting

The research was conducted at the Faculty of Biology-Oriented Science and Technology of Kinki University. Students are encouraged to come and participate in the Lunchtime Reading activity, which takes place between 12:10 p.m. and 1:00 p.m. in the campus Multiple-Purpose Room. Students come in and read one card, record their answers and reading time in a log, and leave. On alternating days, one of two teaching support staff members, who are both native speakers of English, is there to supervise, and is available to answer questions and to give advice on study strategies and materials selection.

Participants

Participants were undergraduate students majoring in the life sciences. Out of 44 students who came all semester, 32 came more than once. Therefore, we were able to calculate the difference in reading rates from the beginning to the end of the semester. As for survey data, 59 students completed an anonymous questionnaire. This figure includes the aforementioned 44 students who came to Lunchtime Reading during the semester, as well as students who had never participated.

Reading materials

Students can choose reading materials from a range of SRA Science Laboratory cards to read at their own pace. The three main topics that students can choose from are Life Science, Earth Science, and Physical Science, and each set is divided into two levels. According to the publisher, the A level is written for presumably native-speaking learners at a reading age of ten, while the B level is written for students in the upper primary to lower secondary grades. Participants choose their own reading materials from one of the three sets of cards or they may also choose from a selection of graded readers or American cooking and fashion magazines.

Data Collection

Records

Students kept a log, which stays in the same room in which the reading materials are kept. They recorded the date, card number, title, starting time, finishing time, and answers to nineteen comprehension questions. A total of 44 students participated in the spring semester and 32 came more than once. Table 1 shows the number of visits per participant. This data was used to answer our first research question of whether or not students' reading and comprehension rates improved.

Table 1

Number of Times Participating

Number of times participating	Number of students
1 (time)	44
2 - 5 (times)	16
6 - 10	4
11 - 15	1
16 - 20	2
21 - 25	4
26 - 30	-
31 - 35	1
36 - 40	-
41 - 45	-
46 - 50	1
51 - 55	-
56 - 60	1
over 60	2

Questionnaire

Students were approached by the researchers to complete our questionnaire. Among the 59 students who agreed to complete the questionnaire, 32 students had not participated in Lunchtime Reading during the spring semester, while 27 had. This data was used to answer the second research question regarding just how beneficial students found Lunchtime Reading to be.

The former group was surveyed to find out about their awareness of Lunchtime Reading activities, towards reading in general, and towards English study, while the latter group was surveyed to find out their attitudes towards the reading materials, towards reading in general, and towards English study in general.

In order to find out about our participants' awareness of and feelings towards Lunchtime Reading, a questionnaire was created and administered in Japanese. The questionnaire consisted of four sections: Section One asks participants about their awareness of Lunchtime Reading, Section Two asks participants about their attitudes towards the SRA materials, Section Three asks about attitudes towards reading in English and in Japanese, and Section Four asks about participants' attitudes towards English study.

Results

Reading Rates and Comprehension

The difference in reading rate was calculated by subtracting the reading time of the first time participating in the semester from the reading time of the last time participating in the semester. Out of the 32 who participated more than once during the semester, 17 showed an improvement in reading speed, while five showed no improvement, five showed a slower reading rate, and five were excluded because of incomplete records. The rate of improvement in reading speed ranged from 1.5 to 17 minutes. The average improvement in reading time was 7.48 minutes. This figure does not include students who were reading more slowly by the end of the semester. Students who read more slowly at the end of the semester took from one to eight minutes longer.

The comprehension rate was calculated by subtracting the number of correct answers in the first reading from the number of correct answers in the last reading. Gains are shown in Table 2. Comprehension rates improved in 22 out of 32 participants. The improvements ranged from one to 14 out of 19 questions answered correctly. Ten participants improved in both reading speed and comprehension rates.

Table 2

Reading Time and Comprehension Average of Lunchtime Reading Participants

	Increase in Reading Speed		Increase in Comprehension	
	All participants	Participants showing improvement	All participants	Participants showing improvement
Average (SD)	-4.45 (6.89)	-8.94 (6.09)	2.61 (4.67)	4.64 (3.71)

Attitudes towards Lunchtime Reading

Survey questions 2 to 7 were asked on a 6-point Likert scale to non-participants of the Lunchtime Reading in order to gauge awareness of Lunchtime Reading and to find out factors that mitigated participation. The results are shown in Table 3. The scores from each question were tallied, and the average and standard deviation were calculated. A copy of the questionnaire can be found in the Appendix. It is worth mentioning here why question 2 was asked on a scale from one to six, rather than as a Yes/No. This question could have been phrased as a binary Yes/No, but we were interested to learn about the degree of awareness, not merely the rate. Some students may definitely never

have heard of it, others may have heard of it, but not been interested in participating, while others may have merely heard of it but not know exactly what kind of activity it is.

Table 3

Results of Questionnaire on Awareness of Lunchtime Reading

Q	Average (SD)
2 Have you heard of Lunchtime Reading?	2.87 (1.87)
3 Do you find it difficult to find the time to come to Lunchtime Reading?	3.83 (1.37)
4 Would you participate if it were held at a different time?	2.87 (1.07)
5 Is the Multiple Purpose Room far and inconvenient for you to get to?	3.10 (1.42)
6 Do you think Lunchtime Reading will help you with your English reading ability?	4.30 (0.92)
7 Do you think Lunchtime Reading will help you with your general English ability?	4.40 (0.97)

Attitudes towards Materials

Questions 10 to 17 were asked to students who had participated in Lunchtime Reading to find out whether the students participating in the program find the reading materials to be helpful in improving their reading skills. Each score was tallied and the average and standard deviation were calculated for each question. Please refer to Table 4 for the average scores and their standard deviations.

Table 4

Results of Questionnaire on Materials

Q	Average (SD)
10 Do you think that SRA Science Reading will improve your reading comprehension?	4.85 (1.01)
11 Do you think that SRA Science Reading materials are interesting?	4.65 (1.20)
12 How difficult are SRA Science Reading materials?	3.58 (0.81)
13 Do you think that SRA Science Reading materials have helped you to improve your reading comprehension?	4.19 (1.23)
14 Have you come to like reading because of the SRA Science Reading materials?	4.04 (1.59)
15 Have you learned about science from the SRA Science Reading materials?	4.04 (1.37)
16 Have you become a more confident reader because of the SRA Science Reading materials?	3.46 (1.39)
17 Do you think that having read the SRA Science Reading materials will be useful in the future?	4.96 (1.15)

Attitudes towards Reading in General

Questions 18 to 24 were asked to both participants and non-participants of the Lunchtime Reading about their attitudes towards reading in both English and Japanese. The scores from each question were tallied and the average and standard deviation were calculated. The results are shown in Table 5.

Table 5*Results of Questionnaire on Attitudes towards Reading*

Q	Participants (SD)	Non-Participants (SD)
18 Do you enjoy reading in Japanese?	5.23 (1.03)	3.97 (1.28)
19 Do you read quickly in Japanese?	3.62 (1.27)	3.25 (1.24)
20 Do you enjoy reading in English?	3.50 (0.99)	2.97 (1.00)
21 Are you good at reading in English?	2.50 (0.95)	2.56 (1.05)
22 Do you read quickly in English?	2.15 (1.05)	2.53 (1.24)
23 Do you think that English reading skills will help you in the future?	5.38 (0.80)	4.56 (1.27)
24 Do you think that your English reading ability will help you to improve your general English ability?	5.15 (0.92)	4.31 (1.23)

Attitudes towards English and Science

Questions 26 to 28 asked members of both groups about their attitudes towards English and the sciences and the results are displayed in Table 6.

Table 6*Results of Questionnaire on Attitudes towards English and Science*

Q	Participants (SD)	Non-Participants (SD)
26 Do you like English?	3.92 (1.09)	3.34 (1.10)
27 Do you like science?	5.04 (0.87)	3.72 (1.25)
28 Do you like reading about science (in Japanese)?	4.58 (0.95)	3.44 (1.27)

Discussion

To answer the first research question, students' reading logs were used. As

expected, more than half the participants of Lunchtime Reading showed faster reading times in the final reading than the first reading. This measure showed an improvement in the average reading speed of our participants. Furthermore, 22 out of 32 participants had an increase in the number of correct answers to the comprehension questions.

In terms of our survey on awareness of Lunchtime Reading conducted on non-participants of Lunchtime Reading, most were somewhat aware of the program and probably thought the program to be beneficial, but the location or time made it difficult to attend.

In terms of the effectiveness of our materials, those who participated in Lunchtime Reading replied that they “somewhat” to “strongly” felt that it benefitted their reading skills and overall English ability, and the content would probably be interesting to them.

With respect to attitudes towards reading in general, more Lunchtime Reading participants answered that they liked reading in Japanese and felt somewhat confident reading in English compared to those who have not participated. In answer to the second research question, to what extent participants found Lunchtime Reading to be beneficial, both participants and non-participants felt that reading English would be probably necessary in their future and it would probably help improve general English ability.

As for attitudes towards English and science, non-participants answered less favorably to both questions, while Lunchtime Reading participants said that they liked both English and science and that they liked reading science materials in Japanese, which can be interpreted as a positive attitude towards reading about science in general. We have found increases in reading rate gains, just as Beglar et al. (2012) found. We were able to evaluate enough participants who engage in extensive reading even though they come on a voluntary basis. The survey confirmed that our participants like reading and that they like science and therefore it can be said that our materials are beneficial because they are intrinsically motivating.

Extensive reading programs that are not completely voluntary most certainly have value, but since our students participate voluntarily, in terms of motivation, our program can be said to be superior because it harnesses students' internal motivation. The participants in the Beglar et al (2012) study did extensive reading both in- and outside class. Just by virtue of our participants coming to participate in Lunchtime Reading can be taken to mean that they are motivated and can see the value of

extensive reading. Comparing free voluntary extensive reading and extensive reading done in class may be worthwhile investigating in the future.

Limitations

Our results should be interpreted in the context of the limitations of this study. To begin with, our sample was not large, nor was it a random one, so we cannot say anything about significance and it is therefore difficult for the reader to make generalizations. Since students come in voluntarily, we cannot expect to get large numbers of participants in the initial years. For future studies, in order to find more reliable data, it may be worthwhile comparing our program to programs conducted at other schools. Another problem related to our participants is that they kept records themselves. They recorded starting and finishing times, as well as which answers they answered correctly. When going through the records, we found a couple of gaps where our participants neglected to mark starting and/or finishing times, and because of the self-report nature of this data, we cannot know for certain that their records are completely accurate. However, by encouraging students to track their own progress, we hope to encourage autonomous learning. Third, our participants were Japanese EFL learners of English majoring in the life sciences, so even if we had selected a random sample of participants, generalizing the results to other learners of English with different L1s should be done with caution, especially when considering how different Japanese is from English. In the future, we may want to find or perhaps even develop similar materials for L2 learners thereby giving students an even wider selection, which is desirable in any extensive reading program. Furthermore, it stands to reason that our students must be doing other kinds of English study outside Lunchtime Reading so not all gains can be attributed only to voluntary reading during the lunch hour.

Conclusion

Our Lunchtime Reading program started in 2012 as a part of our Language Space activities. Over a semester, we have seen increases in both participants' reading and comprehension rates and our participants generally have a positive attitude towards the selection of materials. Students who come regularly tend to like both science and reading and found Lunchtime Reading to be beneficial. As the main reading materials, the SRA Science Laboratory series was chosen to provide students with more

opportunities to read science materials in English and students find the materials engaging. Our students choose what they want to read from day to day and in the semester, some were even motivated to come to Lunchtime Reading over 60 times. Why participants find the materials engaging, and why the students continue to participate can be answered by interview data, which we will need to collect in the near future. Furthermore, since the SRA series was created with native speaking students in mind, it can be seen as being authentic, and therefore more intrinsically motivating to read. Since our participants are majoring in the life sciences, we would expect them to be motivated by the content as well. We conducted this study to investigate two measures of the efficacy of the program. Since, according to these measures of reading speed and comprehension we can justify wider promotion of the program. In addition, we may also have to consider ways to make it easier for more students to be able to participate. It will also be worthwhile investigating whether reading the selection of materials has a positive effect on reading compared to other extensive reading materials. The program is still in its third year. Because of limited advertising, a limited number of students have participated. By increasing advertising, we expect many more students to participate. We will also need to address how to make Lunchtime Reading more accessible to all students bearing both time and location in mind. Because we will also want to find out how graduate students benefit from Lunchtime Reading, we need to continue promoting the program so that we can observe graduate student participants in addition to undergraduates. In the academic year 2014-2015, we have started promoting Language Space activities using the campus website and we are currently thinking about what materials to add and/or create. At the moment, students are most often drawn to the SRA materials, so we do not know if students benefit from the SRA materials themselves, or if our learners' successes can be attributed to something else. In response to survey data, we will have to consider what to do about the environment and scheduling because some students find the time and/or the location inconvenient.

References

Beglar, D., Hunt, A., & Kite, Y. (2012). The effect of pleasure reading on Japanese university EFL learners' reading rates. *Language Learning*, 62, 665-703.

- Bell, T. (2001). Extensive reading: Speed and comprehension. *The Reading Matrix*, 1(1). Retrieved from <http://www.readingmatrix.com/articles/bell/>
- Benson, M. (1991). University ESL reading: a content analysis. *English for Specific Purposes*, 10, 75-88.
- Day, R. & Bamford, J. (1998). *Extensive reading in the second language classroom*. Cambridge: Cambridge University Press.
- Krashen, S. (2004). Applying the comprehension hypothesis: some suggestions. Retrieved September 9, 2013, from http://www.sdkrashen.com/articles/eta_paper/eta_paper.pdf
- Mason, B. & Krashen, S. (1997). Extensive reading in English as a foreign language. *System*, 25 (1), 99-102.
- Mori, S. (1999). The role of motivation in the amount of reading. *Temple University Japan Working Papers in Applied Linguistics*, 14, 51-68.
- Mori, S. (2004). Significant motivational predictors of the amount of reading by EFL learners in Japan. *RELC Journal*, (35) 1, 63-81.
- Nation, I.S.P. (2001). *Learning Vocabulary in Another Language*. Cambridge: Cambridge University Press.
- Nation, I.S.P. & Webb, S. (2011). *Researching and Analyzing Vocabulary*. Boston: Heinle Cengage Learning.
- Nation, P. (2013). *What should every EFL teacher know?* Compass.
- Pitts, M., White, H., & Krashen, S. (1989). Acquiring second language vocabulary through reading: A replication of the Clockwork Orange study using second language acquirers. *Reading in a Foreign Language*, 5 (2), 271-275.
- Richards, J.C. & Schmidt, R. (2002). *Longman Dictionary of Language Teaching and Applied Linguistics*, (3rd ed.). London: Pearson Education.
- SRA Science Laboratories. (n.d.). Retrieved September 9, 2013, from http://www.mcgraw-hill.co.uk/sra/science_laboratories.htm.
- Takase, A. (2007). Japanese high school students' motivation for extensive L2 reading. *Reading in a Foreign Language*, 19 (1), 1-18.
- 服部圭子 (2013). 「理系学部における授業外の言語文化活動 -B.O.S.T. Language Space の実践報告」『近畿大学教養・外国語教育センター紀要 (外国語編)』、第3巻、第2号：155-167.

Appendix Questionnaire

今回、ランチタイムリーディングの取り組みと使用教材の有効性を検証するに当たり学生の皆さんの英語学習についての意識調査を実施いたします。下記の質問への回答は、研究調査のみに使用されますので正直にお答えください。ご協力ありがとうございます。

ランチタイムリーディングに参加した際に記入した Reading Log の内容を研究調査に利用することを許可します。

SRA Science Reading について	あまり思わない→強くそう思う					
SRA の Science Reading は読解力を向上するのに効果的ですか？	1	2	3	4	5	6
SRA の Science Reading の内容は面白いですか？	1	2	3	4	5	6
SRA の Science Reading の難易度はどれくらいだと思いますか？ 1 (非常に簡単) → 5 (非常に難しい)	1	2	3	4	5	6
SRA の Science Reading をすることによって英語の読解力が向上しましたか？	1	2	3	4	5	6
SRA の Science Reading をすることによって英語のリーディングが好きになりましたか？	1	2	3	4	5	6
SRA の Science Reading をすることによって理系の知識が向上しましたか？	1	2	3	4	5	6
SRA の Science Reading をすることによって英語リーディングに対する自信ができましたか？	1	2	3	4	5	6
SRA の Science Reading は将来役に立つと思いますか？	1	2	3	4	5	6

読書全般について

日本語での読書が好きですか？	1	2	3	4	5	6
日本語を読む速度は速いほうですか？	1	2	3	4	5	6
英語のリーディングは好きですか？	1	2	3	4	5	6
英語のリーディングは得意ですか？	1	2	3	4	5	6
英語を読む速度は速いほうですか？	1	2	3	4	5	6
英語リーディングスキルは将来役に立つと思いますか？	1	2	3	4	5	6
英語のリーディングは英語全般のスキルの向上につながりますか？	1	2	3	4	5	6

何故、英語のリーディングは英語全般のスキルの向上につながると思いますか？

何故、英語のリーディングは英語全般のスキルの向上につながらないと思いますか？

英語学習全般について

英語が好きですか？	1	2	3	4	5	6
科学／理系科目が好きですか？	1	2	3	4	5	6
理系の読み物（日本語）は好きですか？	1	2	3	4	5	6

ランチタイムリーディングの場所や開催時間帯について

ランチタイムリーディングのことを知っていますか？	1	2	3	4	5	6
ランチタイムリーディングは時間面で参加することが難しいですか？	1	2	3	4	5	6
昼食時ではなく、他の時間であれば参加しますか？	1	2	3	4	5	6
多目的室は遠いので行くのに不便ですか？	1	2	3	4	5	6
ランチタイムリーディングに参加することで英語リーディング能力の向上につながると思いますか？	1	2	3	4	5	6
ランチタイムリーディングに参加することで英語力の向上につながると思いますか？	1	2	3	4	5	6

何故、ランチタイムリーディングに参加していますか？

何故、ランチタイムリーディングに参加していませんか？