

Exploring Online and Extensive Reading in an Oral English Course

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This action research project investigated the use of an online library of graded readers with 126 education and psychology majors, first term sophomores, at a Japanese university. In a quasi-experimental design, during class time, six classes of students spent 15 minutes reading on mobile devices and 15 minutes in book talks in small groups; they also read for homework. They were compared to a control group, 110 students in five classes, who did discussions of current events for 30 minutes and assigned homework from textbooks. Pretest and posttest measures of students' reading speed, comprehension, and vocabulary showed no significant differences. However, a survey indicated students preferred reading on smart phones to reading paper books and believed the online library improved their English skills. Teachers reported the online library facilitated monitoring of students' efforts and effective consulting with them. Results of the project suggested considerable effort is needed to accustom instructors and students to this approach.

本アクションリサーチプロジェクトでは段階別読本 (graded readers) のオンライン図書館利用を調査した。日本の大学で教育学と心理学を専攻する2年生126名を対象に1学期に行った。準実験計画法を用い、6つのクラスで学生にモバイル機器での読書を15分間行わせ、小グループで本について15分議論させた。加えて読書の宿題を与えた。この6クラスは、時事問題について30分の議論をさせ、教科書からの宿題を課した対照群 (5クラスに分けられた110人の学生) と比較した。学生の読む速度・読解力・語彙力を計測した予備テストと事後テストを分析した結果、有意差は見られなかった。しかし、学生は紙の本よりもスマートフォンでの読書を好み、オンライン図書館が英語力向上に役立つと考えていることを調査は示した。教員は、本プログラムにより学生の取り組みを観察したり、効果的に学生と意見交換したりすることができたと報告した。本プロジェクトの結果から、指導者と学生がこの新しいアプローチに慣れるためには、初期段階でかなりの努力が必要となることが示された。

This action research project investigated the impact of an extensive reading program whereby sophomores at a Japanese university accessed an online library of graded readers over a spring term. Day and Bamford (1998) described extensive reading (ER) as reading as much ability-appropriate materials as possible, corresponding with the interests of learners, to improve reading speed, fluency, motivation to read, and general

comprehension. Previous studies have reported improvements in students' English ability through exposure to ER: increased reading speed (Bell, 2001), better spelling and vocabulary knowledge (Pigada & Schmitt, 2006), improved motivation to read (Al-Homoud & Schmitt, 2009), and better student readiness to write (Hafiz & Tudor, 1989; Park, 2016). In Japan, gains have been noted over yearlong courses in university students' reading comprehension (Robb & Kano, 2013), reading speed (Beglar, Hunt & Kite, 2011), and even in students' reading speed over a semester (Huffman, 2012).

Despite potential benefits, ER is often difficult to implement in university classes in Japan. First, reading courses are usually taught through the traditional *yakudoku* ("translate and read") approach. Furthermore, Robb and Kano (2013) noted that "factors such as book acquisition and management, student motivation and record-keeping" militate against ER's widespread adoption (p. 235).

In this project, ER was introduced as a component in a speaking course, Oral English, to avoid any conflict over the methodology of teaching reading among teachers and to provide insight into ER's potential benefits in other areas of the language teaching curriculum. Furthermore, by accessing an online library of digital books with software providing tracking, this approach mitigated the challenges of providing suitable reading libraries for students and monitoring their work. Therefore, the project had several aims: (a) to assess the strengths and limitations of an online virtual library, with mobile devices as the principle vehicles of delivery; (b) to measure the impact of this approach on students' reading speed, comprehension, reading habits, and attitudes toward ER over one semester; and (c) to gauge the practicality and benefits of implementing ER as part of an Oral English course.

Method and Procedure

Students

The 126 students in the experimental group and the 110 in the control group were sophomore education and psychology majors enrolled in a compulsory 90-minute Oral English class that met weekly. The classes were taught by native speakers and conducted solely in English, the only such course in the students' schedule. This study used intact classes (quasi-experimental design). Students were not randomly assigned to each group. However, with the exception of the experimental treatment (extensive reading), control and experimental groups had similar materials and syllabi, which included discussing news articles that students read online, doing communication activities using textbooks, keeping vocabulary notebooks, and making presentations.

Instructors

Six instructors volunteered to collaborate on this study by teaching the experimental group. Their role as coresearchers involved conducting pretests and posttests, writing weekly observation reports, and administering an end-of-term questionnaire. As instructors, they monitored their students' progress and provided encouragement.

Materials

Xreading Virtual Library (<https://xreading.com/>) is a commercial site with hundreds of graded readers supported by a learning management system (LMS). Students have unlimited access, so they can read any book in the library using a PC or a mobile device either on or off campus. The LMS allows instructors to monitor the students' reading in detail, for example, noting student time on task, how many words they have read, their reading speed, and scores on multiple-choice quizzes.

Procedure

The classes were divided into a control group of five classes and an experimental group of six classes. Both groups shared the same Oral English curriculum with the exception of the class time the experimental group spent using Xreading or working on it for homework. During class time, the control group did the regular course discussions of current events for 30 minutes or other oral English activities assigned from their textbooks or provided by the instructors..

In the experimental group, instructors set aside 15 minutes for silent reading while students accessed the online library through their mobile devices and an additional 15 minutes for book talks in small groups to further motivate students (Kirchoff, 2015) and for occasional teacher-to-student consultations and whole group feedback. Students were encouraged to read outside of class time; instructors were expected to base 20% of the students' final grade on how many words they read. To receive credit for words read, a student needed to score at least 60% correct on the comprehension quiz for each book. Based on a weekly target of 6,000 words, most students were expected to reach a goal of 80,000 words by the end of the semester.

Data Collection

Vocabulary Size

In the first and last class, students used their mobile devices to access the 2000-word Vocabulary Levels Test (Laufer & Nation, 1999) through an online site (<http://www.lexutor.ca/tests/levels/productive/>). They supplied the missing words to 18 sentences and were given a percentage score. Two versions of the test were employed to control for possible differences in test difficulty. Version A was randomly assigned to half of the classes as a pretest and Version B as a pretest for the other half. The order was reversed for the posttest. This test was adopted for its ease in administration and because students in the experimental group would be using a mobile device for ER later.

Reading Speed and Comprehension

Two 550-word reading passages written within the 1,000 most frequently used words of English (West, 1953) were taken from Quinn, Nation, and Millet (2007). The first, “Life in the Pacific Islands,” had a Flesch Reading Ease estimate of 83.6 and the second, “Death Ceremonies in Bali,” had one of 80.0, both within the “easy” range (Microsoft Word, 2016). For the first passage, 94% of the words were found within the first 1,000 words of the British National Corpus and the Corpus of Contemporary English compared to 96.94% of the second passage (VocabProfiler, <https://www.lexutor.ca/vp/comp/>). In terms of vocabulary frequency and reading ease (as measured by sentence and word length), the two passages were similar in difficulty.

As with the vocabulary tests, the classroom teachers administered the test, passing out paper copies. Each teacher wrote the reading time on the board at 10-second intervals. Students were instructed to record the time when they finished reading the first page, to turn over the page, and without looking back, answer 10 multiple-choice questions. Students marked the tests in class. As with the vocabulary test, A and B versions were randomly assigned to classes and alternated for the posttests.

Instructors’ Weekly Reports

The instructors in the Xreading classes were provided with a set of 11 questions on which to base weekly observation reports as well as formative and summative feedback on their experiences using Xreading. The aims of these reports were (a) to provide information for assessing the effectiveness of Xreading as an ER platform and (b) to promote reflective teaching for improving instruction (see Figure 1). Among the six instructors who

collaborated on this study, four submitted weekly reports. Two instructors had to decline because of other obligations.

1. Describe how the reading went in the classroom.
2. Describe progress in words per minute, total time spent reading, and number of books read.
3. As appropriate, include names of students who are doing particularly well or badly.
4. How will you help individual students with their learning?
5. What will you do in the next class to improve the students’ utilization of Xreading?
6. What are the chief obstacles to student use of Xreading?
7. How would you describe student engagement with Xreading?
8. How are you trying to encourage competition between students to get them to read more?
9. What other inducements to engage with Xreading might work?
10. What comments do you have about Xreading software?
11. What overview would you make of Xreading?

Figure 1. Guide questions for instructor’s weekly observations and reflection.

Reading Habits and Attitudes

At the semester’s end, an English questionnaire using SurveyMonkey (<https://jp.surveymonkey.com/>) was administered to 126 students in the experimental group. Questions were adapted from those used by Milliner and Cote (2014) to survey Japanese university students’ attitudes toward an earlier version of Xreading. Questions 1 and 2 asked students about their mobile device and the location where they accessed Xreading outside the classroom. Eight other questions asked about their likes and dislikes concerning Xreading as rated on a 5-point Likert scale (See Appendix 1) and through open-ended questions.

Results and Discussion

The data was analyzed using IBM SPSS Statistics 19 (Version 19) for the pretests and posttests. A one-way between subjects ANOVA compared the effect of Xreading on the gain scores of vocabulary growth, reading speed, and reading comprehension, subtracting the pretest scores from the posttest scores. As there were a number of tests, some students were absent for a pretest or posttest, so the numbers of subjects for each test are different. Furthermore, to perform the analyses with the same number of students, subjects were randomly dropped from the experimental group.

Although the descriptive statistics in Table 1 show that the experimental group had a higher gain in vocabulary growth, it also had a higher pretest score. There was not a significant difference between the two groups for vocabulary growth; $F(1, 181) = .09, p = .765$.

Table 1. Vocabulary Growth

Tests	Control (n = 104)		Experimental (n = 104)	
	M	SD	M	SD
Pretest	34.23	14.90	49.81	21.22
Posttest	44.58	18.61	61.18	15.83
Gain	10.35	18.82	11.32	27.30

Results in Table 2 show that the control group read slightly faster than the experimental group on the posttest. But the experimental group had a lower speed on the pretest. There was not a significant difference between the two groups; $F(1, 210) = .959, p = .329$.

Table 2. Reading Speed (in Seconds)

Tests	Control (n = 106)		Experimental (n = 106)	
	M	SD	M	SD
Pretest	318.27	151.71	289.99	101.54
Posttest	330.19	177.52	327.69	211.29
Gain	11.92	165.51	37.70	214.64

The results in Table 3 indicate a negative gain for the experimental group in reading comprehension. In addition, there was a significant difference between the two groups; $F(1, 218) = 8.434, p < .05$ favoring the control group.

Table 3. Reading Comprehension

Tests	Control (n = 110)		Experimental (n = 110)	
	M	SD	M	SD
Pretest	6.49	2.39	7.23	1.84
Posttest	7.32	1.83	7.00	1.83
Gain	.827	2.71	-.23	2.67

Although the only gain reported on the test measures was in reading comprehension by the control group, these results may be explained by the small number of items, 10, on the reading comprehension test. The weak showing of the control group on the pretest for reading comprehension makes their posttest result less impressive.

Instructor Observations

Considerable data was collected from the weekly reports. To deal with it, each instructor wrote a 500-word summary of their observations and reflections during the term. The project coordinator used these summaries along with the original reports to identify common themes, insights, and suggestions regarding Xreading.

Advantages and Challenges of Using Xreading

The instructors reported that they were impressed by the trove of data provided by the Xreading platform. They found it an important tool for motivating their students and identifying those at risk of failing. They particularly appreciated the running record of words read and the summative data at the term's end. One instructor, a coauthor of this paper, put it this way:

I projected the “Student Data” from the Teacher’s Account onto the screen at the front of the classroom. For each student, we could see which books she or he read during the week. The page displays the book covers so it was easy to see how many and which books students were reading. The students showed high interest in the

data and seemed to be especially surprised that so many students had read multiple books and had greatly exceeded the 6,000-words-per-week target. I think that making students aware of the performance of their classmates will help to establish realistic standards and encourage all students to participate actively.

One challenge instructors and students faced was the considerable time needed to learn how to effectively use all of Xreading's features. A common observation was that students needed more help than expected on how to choose books that fit their ability level and interests. Based on his experience in an ER program at another university, one instructor, another coauthor of this paper, emphasized teaching students the rudiments of how books were categorized by total words and the frequency level of the headwords.

A point of confusion in the Xreading data set for both instructors and students was the difference between "total words" (total words in a book) and "words read" (which recorded the words in a book only if the student passed a quiz). Initially, many students skipped the quizzes and as a result were not given credit for having read those books. By the end of the semester, that figure amounted to thousands of words not counted for some students, which had a severe impact on their final grade. That problem was mitigated through one-to-one consultations with students and by instructors using the re-set function to allow students to retake quizzes.

On our campus, trouble accessing Xreading in class due to slow connection speed and system timeouts that occurred while students were reading were sometimes mentioned. One teacher, a third coauthor, reported, however, that he had no such problems doing similar online work with students at another university. Another instructor, a coauthor, observed two students in his class always using PCs to do their readings, not mobile phones, because they found it "a lot easier to access the program and move between pages" and simpler to take quizzes, too.

Extreme Range of Student Effort

In all objective measures of student performance, instructors reported an extreme range of outcomes. For example, in one class one student managed to read 55 graded readers, although the average in his class was 13 books per student. Similarly, the level of difficulty of the books that students read in another class averaged 5.1, but ranged from 3.0 to 7.0. Reading speeds also showed great variation. One instructor, a coauthor, observed some students "skimming through pages without paying any attention" although the average speed for his class was the credible figure of 118 words per minute. In particular, total words read for the semester showed extreme variation. In one class, only three students managed to read more than the 80,000-word target with one student

reading only 9,091 words. In contrast, in another class, words read ranged from 15,000 to 148,000, reading time ranged from 8 hours to 30 hours, number of books finished ranged from 12 to 82, the average book level ranged from 2.7 to 7.1, and reading speed ranged from 53 to 174 words per minute.

Student Engagement

Student engagement with ER varied considerably, both within and between classes. Some students became highly engaged with the content of their books, which became "a springboard for discussion" with their partners. For example, in one class, a pair of students "discussed how poverty is a problem in many countries and not so much in Japan" and another pair "talked about their own goals" as one student had read about a character's goal-setting. In contrast, other students "faked it" in discussions. One student stated, "I do not really understand what I read, I just read as fast as I can."

A common observation was that the amount of weekly reading began to decline significantly toward the semester's end and most students failed to reach the goal of 80,000 words. For example, one instructor, a coauthor, observed that during the first half of the semester, about 80% of his students read more than 6,000 words per week. However, toward the end of the semester, student reading fell to a low of about 1,500 words per week. Despite this drop, 60% of the students in this class reached the 80,000-word target. Although the amount of reading declined drastically, one instructor reported that the book talks remained "as lively as ever and student classroom engagement was high."

Other Comments About ER and Xreading

The instructors made several suggestions for implementing an online ER program. For example, when introducing Xreading in a speaking course such as this one, the instructor should present a clear rationale and explain how ER could improve students' listening and speaking skills. Also an ER component might be more effective if it combines physical and digital books, leaving students free to choose a paper book for a specific purpose such as writing a report. One instructor, a coauthor, questioned whether the amount of words read is really a fair way to evaluate students: "If a student is reading a large number of very low-level books (e.g., levels 1, 2, 3, 4) and building up a high number of total words, is that better than a student reading fewer books at the medium level (e.g., 7, 8, 9) with a lower number of words?" Overall, despite a number of challenges, instructors responded positively to ER using Xreading. To sum up, in the view of one instructor, a coauthor: "Instructors will take time to adapt to change and it may not be until the third or even fourth year that they become comfortable."

Survey Results

The survey results indicated that most students used smartphones (84.12%), but 8.55% accessed the app primarily through tablets and 7.28% by PC. Although the survey did not ask what proportion of that time was spent on Xreading, 67.48% of the students used their smartphone for 3 hours or more daily. The students commonly accessed Xreading while commuting by train (48.72%). Two other major categories included “access from home” (29.91%) and “on campus” (19.13%), whereas only 0.86% accessed it from a cafe or restaurant, and 1.38% while walking.

Generally, the Likert-type scale items showed favorable attitudes toward Xreading (see Appendix). First of all, students had more positive attitudes toward reading in L1 than in English with nearly 80% agreeing or strongly agreeing they liked to read in Japanese, compared to only 30% saying that they agreed or strongly agreed they liked reading in English. However, after spending a semester using Xreading, over half of the students (53.18%) reported agreeing or strongly agreeing to the statement “I like reading books [which were entirely in English] using Xreading.” The respondents overwhelmingly agreed that Xreading contributed to improving their overall English skills (74% strongly agreeing or agreeing to this), perhaps because ER stimulated classroom discussion through the “book talks” and teacher–student conferences regarding student progress in Xreading may have led to more purposeful individualized interaction in L2.

Responses to open-ended questions about what students liked the most about Xreading were its varied contents and the convenience of accessing it anytime and anywhere (14 comments each). Among other affordances that they liked and found useful were the running count of the number of words they read, the access it gave them to books that they wanted to read, the positive pressure it put on them to read more, and its modest cost.

Their biggest complaints were they needed Wi-Fi in order to use Xreading and had problems logging in or with system glitches (13). A substantial number worried about possible negative effects such as eyestrain (9) and fatigue (3). Some students disliked the tests (3) and worried about Xreading’s running costs on a mobile (6). Finally, students missed aspects of conventional books such as being able to underline text (1), to write notes on a book (1), or to return to a previous page (1).

Conclusion

This action research project had numerous limitations. First, it was biased toward the experimental group because students spent time outside of class using Xreading. In contrast, the control group was only assigned their regular homework. Student perceptions of improved English skills may have resulted from “more study time.” Furthermore, using Xreading presented several problems. For the first and second classes, some students were slow to register as they had failed to purchase an Xreading access card beforehand. Next, some instructors noted as many as three “timed-out sessions” over the semester when students could not access the online library, leading to an additional time reduction in the experimental treatment. As mentioned earlier, the vocabulary and reading tests likely had too few items to effectively measure a range of student abilities. In addition, students doing the vocabulary test had trouble seeing the complete sentences on their small mobile screens and had to scroll left and right. Moreover, an 18-item test of *productive* vocabulary that required the students to type in and spell words correctly and marked in percentages will not show much improvement in *receptive* vocabulary, usually measured in reading.

Lastly, although Huffman (2012) reported his students’ reading speed improved over a single semester, they spent 30 minutes reading and did other reading-related activities for the remainder of the class. In any case, most ER research has been conducted over two semesters, suggesting that much more time and more reading is necessary to see improvements. For example, Beglar and Hunt (2014) in a year-length study contended that the threshold is a minimum of 200,000 words. But it may be much higher. Nishizawa, Yoshioka, and Fukada (2010) concluded that gains may require a total of 300,000 words and prolonged exposure, over 4 years or more, to achieve gains on the reading section of a TOEIC test.

In spite of these limitations, this action research project offers insights into introducing ER through an online virtual library. The software developer will address the problems identified here in a subsequent version. Future users should understand the need to thoroughly familiarize instructors and students with the numerous features of Xreading and of how it might be adapted to their classrooms.

Finally, students in the Oral English course read far more than they would have ordinarily done and accordingly were exposed to more English input. They had a positive outlook toward reading, which suggests that ER, supplemented with discussions, may form a valuable part of language courses other than those focused on reading.

Bio Data

Gregory Strong is a professor and language program coordinator in the English Department at Aoyama Gakuin University, Tokyo. He has worked in Japan, China, and Canada. Among his publications are graded readers, including *Battle for Big Tree Country*, language learner literature award winner 2016, chapters, including *TESOL Voices: Insider Accounts of Classroom Life* (2017), a biography, *Flying Colours: The Toni Onley Story* (Harbour Press, 2002), and *Adult Language Learners: Context and Innovation* (TESOL, 2009). <http://gregorystrong.com>

Melvin Andrade, EdD is a professor emeritus and former Chair of the Department of English Language at Sophia University Junior College Division. His areas of specialization include curriculum and instruction, materials development, and faculty development. He has been an adjunct instructor at Aoyama Gakuin University since 1999. A longtime member of JALT, JACET, TESOL, and the International Reading Association, he is an alumnus of the Graduate School of Education, UC Berkeley.

Joseph Dias cocoordinates the IE Program in the English Department of Aoyama Gakuin University. He also teaches courses on intercultural communication and food culture as well as a professional development course for graduate students. His research interests include computer- assisted language learning and autonomy in language learning. He has been a reviewer for the *JALTCALL Journal* and the Program Chair of the Lifelong Language Learning SIG of JALT.

James Broadbridge is an adjunct instructor at Aoyama Gakuin University as well as assistant professor in the English Language Program at J. F. Oberlin University in Tokyo. His research areas of interest include vocabulary acquisition, technology in the classroom, and extensive reading. He has presented on these topics in Japan and internationally. His graded reader, *The Lost Cup*, Atama-ii Books' multiple-path series, was nominated at the British Council ELTons 2015 for innovation in learner resources.

Milton Miltiadous has worked in education for more than 20 years, at present in several universities in Tokyo. His previous experience included being the YMCA Adult Education Program coordinator. His experience includes curriculum development, programme implementation, and evaluation of educational activities. Presently, he teaches courses in developing students' writing, research, and interdisciplinary skills. His research interests and publications focus on developing and enhancing students' learning experiences.

Gamal Mohamed has been teaching in the Integrated English Program at Aoyama Gakuin University, Tokyo, for almost 10 years. As well as teaching in Japan for over 15 years, he has also taught in England and Egypt. In addition to language research, he is also interested in the field of mass communication. He is currently involved with the organization of the Psychology of Language Learning conference to be held at Waseda University, Tokyo, June 2018.

Mitsue Allen-Tamai is a professor at Aoyama Gakuin University in Tokyo and an adjunct professor at Temple University in Japan. She has been teaching courses at both the undergraduate and graduate school levels to train college students to become English teachers of young children. Her main research interest is literacy development among young EFL learners. She has been engaged in writing English elementary school textbooks for MEXT.

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Appendix

Survey Questions and Responses

Question	Likert responses (percentages; N = 126)				
	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
1. I like reading books in Japanese.	26.19	53.17	12.70	7.14	0.79
2. Before starting Xreading, I liked reading in English.	1.59	29.37	42.86	23.81	2.38
3. I like reading using Xreading	1.59	51.59	32.54	11.90	2.38
4. Because of Xreading, it is easier for me to read English.	3.97	38.10	40.48	15.08	2.38
5. Because of Xreading, I want to read English more.	8.73	38.10	38.10	13.49	1.59
6. Xreading is helping me to improve my English skills.	9.60	64	20	4.80	1.60
7. Xreading helps me find books that I want to read.	5.56	45.24	30.95	16.67	1.59
8. It is easy for me to read a book using Xreading.	3.17	36.51	38.89	18.25	3.17