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Abstract

This paper seeks to investigate student attitudes to online extensive reading. Extensive reading has long been known to be one of the most effective ways for second language learners to acquire language (Waring, 2000). Extensive reading increases not only reading skills but also vocabulary, writing and grammatical accuracy. I would like to investigate the use of an online extensive reading program, and how students feel about it. The application used is called Razkids (Learning A to Z, n.d.). The books can be read on smartphones, tablet computers or personal computers. It is a reading program designed for native-English speaking Elementary school children. Although this program is not designed for university English learners it has three merits. Firstly the application has been
widely tested and is very stable. Secondly, the cost is very reasonable and approximately one sixth the price of a similar application designed for non-native English language learners. Thirdly there is a wide variety of books, which can be read and listened to at twenty nine different levels, giving students a feeling of autonomy in which they can choose which books they want to read, and at what difficulty level. This paper will also correlate online extensive reading usage with TOEIC Bridge scores over a semester.

キーワード：多読、モバイル技術
Key Words: Extensive Reading, Mobile Technology

Introduction

The purpose of this study is to understand how students feel about online extensive reading, and their motivation to study outside the classroom by using mobile devices. The aim is to inform teachers, administrators, and students on whether online extensive reading is an effective way to improve English language proficiency, and how this can be implemented into classes and the curriculum.

This study was done in a private women’s four-year university in Japan. Many students aspire to become English teachers, flight attendants and other jobs needing a high level of English proficiency, but at present the number of classroom hours is not sufficient for students to reach the necessary English proficiency to achieve their goals. As the major English language tests in Japan are focused on reading and listening, using an application focusing on this should have an impact on standardized test scores. The research studies student attitudes to online extensive reading and the effectiveness of students using an online extensive reading application on their Smartphones to improve their English language proficiency. The application chosen was Raz-Kids (Learning A to Z, n.d.), it is intended for American elementary school children. This application allows students to read and listen to books at various levels of difficulty, and also has a built in learner management system listing the number of hours spent in the application; the number of books read and the number of books listened to. The online extensive reading program was implemented at the beginning of April, when students joined the university and the survey was carried out at the end of the first semester. The extensive reading program can be used on mobile phones, tablet computers, or personal computers. It is attached to a class, which does not have access to a computer laboratory. In the classes the researcher provided extra devices to borrow, but every student had their own smart phone. The purpose of this study is to investigate student attitudes to studying on mobile devices and to find out how and when students used the application. Class time involved intensive reading activities and explicit vocabulary building. The online extensive reading application was assigned purely as homework no classroom time was allotted after the first week’s explanation.
Literature Review

Since the original ‘Book Flood’ by Elley and Mangubhai (1983) it has been shown that extensive reading has numerous benefits for students including; vocabulary acquisition (Day, Omura, & Hiramatsu, 1991), writing skills (Elley, 1991), and study habits (Elley & Mangubhai, 1983). Nation (1997) stated that extensive reading improved not only reading skills, but also writing skills. With so many studies finding benefits of extensive reading, why is it not more wide spread? Malley (2009) found various reasons for this;

1. Insufficient time,
2. Too costly,
3. Reading materials not available,
4. ER not linked to the syllabus and the examination,
5. Lack of understanding of ER and its benefits,
6. Downward pressure on teachers to conform to syllabi and textbooks,
7. Resistance from teachers, who find it impossible to stop teaching and to allow learning to take place.

Using an online application can solve some of these obstacles. Huang (2013) found that iPads could promote learning without the limitations of space or time. Additionally, Takase (2003, 2007) found that to improve student motivation a wide variety of low-level books are needed. Some of the students interviewed complained that;

“If there had been a grater number of easy books I would have read more, but the easy books were always out."
“I wanted to read mange (comics) or picture books.”
(Takase A., 2003, p. 35)

This indicates that students need more low-level books. Another complaint was that the books ‘were out’, indicating that the students could not read what they wanted to as the most popular books were borrowed. Both of these problems can be solved by Raz-Kids, which has a large quantity of very easy books and also all books are available to all students all the time.

Kirk (n.d.) found various ways that students would be more motivated. Firstly, that students were more motivated when learning was real, for example by connecting the classroom with their outside lives by using digital devices. Huang (2013) also found that iPads could provide new and fresh experiences, which motivate students. Secondly, when students were given more choices for example by allowing them to select from alternative assignments they would be more motivated. Finally when the level of difficulty was slightly above their current level, students are motivated and learn most effectively. All three of these requirements can be met through online extensive reading; when students use their own mobile devices, and choose their own books at a level, which they find suitable.
Research background

Two aspects of language learning, which have been shown to be vital for students to become proficient in a foreign language will be combined in this study; the first is autonomous learning and the second is extensive reading. Autonomous learning means that students take on the responsibility for learning themselves rather than just listening to teachers and completing class assignments. To become proficient in a foreign language requires more hours of study than can ever be done in the traditional classroom (Shiobara, 2014). For any language learner to become fluent they need to study independently. This requires motivation and opportunity. When Dickinson (1995) researched the relationship between autonomous learning and motivation, he concluded that according to attribution theory, learners who believe they have control over their learning would become more autonomous learners and consequently be more successful learners. Ways of encouraging autonomous learning through online extensive reading will be investigated. Extensive reading has long been known to be one of the most effective ways for second language learners to acquire language. The reason it is not used more commonly in second language programs is due to the difficulties setting up the program, monitoring students’ progress, assessing students, and most importantly the inconvenience for students of borrowing physical books. This study will investigate whether online extensive reading applications can solve these difficulties and whether students are motivated to be autonomous learners. The application to be used is called Raz-kids© (Learning A to Z , n.d.) It is a reading program designed for native-English speaking Elementary school children. Although this program is not designed for university English learners it has three merits. Firstly the application has been widely tested and is very stable; it contains gamification, built in testing and extensive statistics for teachers and students. Secondly, the cost is very reasonable making it possible for it to be provided through university funding. Thirdly, there are a wide variety of books, which can be read and listened to at twenty nine different levels, giving students a feeling of autonomy in which they can choose which books they want to read, and what difficulty level. Studying online is convenient for students as well as increasing motivation through the wide variety of books and various gamification activities built into the application.

Participants

The research was carried out in two classes of first year female students taking compulsory English courses. All students in the university take a placement test based on the TOEIC Bridge test of English on entering the university. There are four levels of class; ‘A’, ‘B’, ‘C’, and ‘D’. The students in this project were from the top level ‘A’ class and the level ‘C’ class. The combined number of students in these classes was 64, but for the purposes of this study n=53, due to some students not taking the end of semester survey. Some questions have a total higher than 53, as students could choose more than one correct answer.
### Methodology

Students were supplied with an online reading application on their Smartphones called Raz-kids© (Learning A to Z, n.d.). The application was provided free of charge to two classes of students using the researcher’s research funds. This application provides students with access to over 300 books at 29 different levels. The books can be read on smart phones, tablet computers, laptop and desktop computers. Students can choose to read or listen to books. At the end of each book students can take a quiz to check comprehension. The application has a very effective learner management system (LMS) allowing the instructor to monitor student progress identifying how many books have been read, how many books have been listened to, how many quizzes have been taken and how many minutes have been spent in the application. After one semester students were surveyed on their feelings about online learning specifically using mobile devices. The survey was anonymous and was carried out during the final class while the teacher left the room. The survey was made up of questions on a four point Likert scale and open style questions (see appendix 1). All questions on the survey were translated into Japanese to ensure comprehension. Based on research by Nemoto and Beglar (2014) a four point (strongly agree, agree, disagree and strongly disagree) scale was chosen to make questions simple and quick to answer, encouraging students to complete all the questions reliably. The neutral answer was not included to avoid difficult to analyze results and representing the researcher’s belief that all questions should elicit a positive or negative response. Likert style questions were analyzed individually acknowledging that the difference between strongly agree and agree might be different than the difference between agree and disagree, thus making a mean or average inaccurate.

### Findings

#### Student survey results

<table>
<thead>
<tr>
<th>Question</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Raz Kids was enjoyable</td>
<td>8</td>
<td>38</td>
<td>7</td>
<td>0</td>
<td>0.54</td>
</tr>
<tr>
<td>2. I read more books to buy body parts for my robot.</td>
<td>5</td>
<td>17</td>
<td>24</td>
<td>7</td>
<td>0.84</td>
</tr>
<tr>
<td>3. I think my reading has improved due to ‘Raz-kids’.</td>
<td>2</td>
<td>35</td>
<td>16</td>
<td>0</td>
<td>0.52</td>
</tr>
<tr>
<td>4. I feel my listening skills have improved due to ‘Raz-kids’.</td>
<td>4</td>
<td>31</td>
<td>18</td>
<td>0</td>
<td>0.59</td>
</tr>
<tr>
<td>5. I would like to continue using ‘Raz-kids‘ after this course is finished.</td>
<td>5</td>
<td>32</td>
<td>14</td>
<td>2</td>
<td>0.68</td>
</tr>
<tr>
<td>6. The audio helped with my comprehension.</td>
<td>8</td>
<td>33</td>
<td>10</td>
<td>2</td>
<td>0.70</td>
</tr>
<tr>
<td>7. Using ‘Raz-kids’ was convenient.</td>
<td>12</td>
<td>33</td>
<td>8</td>
<td>0</td>
<td>0.62</td>
</tr>
<tr>
<td>8. ‘Raz-kids’ was more enjoyable than reading paper books.</td>
<td>19</td>
<td>28</td>
<td>6</td>
<td>0</td>
<td>0.65</td>
</tr>
</tbody>
</table>

10. ‘Raz kids’ books were too easy for me.  

<table>
<thead>
<tr>
<th>When did you use Raz-kids?</th>
<th>Number of responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekdays</td>
<td>36</td>
<td>57</td>
</tr>
<tr>
<td>Weekends</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Evenings</td>
<td>16</td>
<td>25</td>
</tr>
<tr>
<td>Lunchtime and free periods</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>total</td>
<td>63</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Where did you use Raz-Kids?</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public transport</td>
<td>26</td>
<td>41.9</td>
</tr>
<tr>
<td>Cafe or restaurant</td>
<td>3</td>
<td>4.8</td>
</tr>
<tr>
<td>University</td>
<td>12</td>
<td>19.4</td>
</tr>
<tr>
<td>Home</td>
<td>21</td>
<td>33.9</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>100</td>
</tr>
</tbody>
</table>

Quantitative data from usage and TOEIC Bridge test scores.

<table>
<thead>
<tr>
<th></th>
<th>All students</th>
<th>Average per student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum increase in TOEIC Bridge Scores</td>
<td>14 points</td>
<td>0.26 points</td>
</tr>
<tr>
<td>Total Hours spent in application</td>
<td>8925 minutes</td>
<td>162 minutes</td>
</tr>
</tbody>
</table>

The first question was the most important for this research. The result that 87% of students agreed with this statement indicated that reading books online was an enjoyable activity for most students. The application is actually designed for American elementary school students, so it might be thought that the books would be too easy for university students, this was not the case. Question 10 asked if the books were too easy, but only one respondent chose strongly agree and 83% chose disagree or strongly disagree. There are a number of possible reasons for this. The first is because the students’ English reading ability is similar to native speaker elementary school children. Another reason is that extensive reading is supposed to be at a level, which is easy enough for students to read large quantities quickly. Finally with 29 levels the top level may be suitable for students with levels beyond the average reading level for elementary school students. The reading matter was also a concern as it might be too juvenile, but students thought the books were enjoyable and no students commented on the topics of the books. However, only 36% were prepared to pay anything to have the application after the course finishes. This indicates either that students are unwilling to continue studying English after their compulsory classes have finished, or that students do not think that this application is worth paying money for.

One important factor of autonomous language learning is making learning enjoyable, as well as
rewarding. The application has a built in game function allowing students to use points to either buy parts for their robot or items to decorate the inside of their rocket. However, 60% disagreed with the statement that they read more to get points, indicating that for some students gamification was motivating and added to the enjoyment, but there were many students who were not motivated by the gamification. One possible reason for this is that when students read a large number of books the points are not motivating as they have enough body parts for their robots. As the survey was carried out at the end of the semester, some students, who may have been motivated by the gamification in the beginning, were no longer interested in collecting points. Malley (2009) states that reading should be its own reward, the students who did not read to get points still said that the activity was enjoyable, so the gamification was not needed for most students. Based on anecdotal evidence, one student told me that she had read extra books because she wanted to collect points, so gamification might just be a matter of personal preference.

Attribution theory states that learners, who believe they have control over their learning, and that their actions will lead to success, will be more successful learners. Approximately 67% of students thought that their listening and reading skills had improved due to Raz-kids© and 70% of students wanted to continue with Raz-kids© after the course had finished. Unfortunately the correlation between the change in TOEIC scores from the beginning of the semester to the end of the semester and the amount of time spent in the Raz-kids© application was negligible at -0.018. There are various possible reasons for this, firstly the TOEIC test is not necessarily a good test to measure skills acquired through extensive reading. Takase (2003) found that although extensive reading had a significant effect on reading skills the general improvement in English language proficiency was small. Secondly, one semester is probably not a long enough time period for students to significantly change their language proficiency. Lee S.-y. (2012) found that longer duration was better, although small gains could be made in one semester it requires a large amount of extensive reading, so the time period was possibly too short. Interestingly although there was no clear correlation between students’ TOEIC Bridge scores and extensive reading, the students thought that their English scores had improved. Kelly (2012) found that if students feel that with a little effort they can achieve success, it is highly motivational, creating a virtuous cycle of success and motivation.

85% of students thought that Raz-kids© was convenient and 87% thought that reading on their device was more enjoyable than reading paper books. This is an important difference between paper books and online books. Malley (2009) states that more research needs to be done into the Internet culture of young people concerning reading. It is possible that students rarely read paper books now and are far more comfortable reading on mobile devices. In a survey of 35,000 eight- to 16-year-olds The National Literary Trust found that about a third were reading fiction on screen, with 23% of the youngsters reading fiction on their smartphones.

One disadvantage mentioned in the open question section was that some students ran out of battery at the end of the day and were unable to read books during the train ride. This is significant as 42% used
the application on public transport, with 34% using it at home. It is difficult to solve this problem and as the Raz-kids© application uses a relatively low amount of battery usage the students are using the battery up with other applications. Only 19% of students used the application in the university indicating that most students either return home immediately after class or that students prefer other activities when they are at university.

The final question indicated that all but one student only used the application on their smart phones, one student out of 53 stated that they used a tablet computer. This is indicative of the student body, and might be different in a scientific university. It backs up White and Mills (2012) study, which found that 99.5% students at a private university in Japan had a mobile phone, of those 54.1% had smartphones. As that research was carried out in 2012 it is likely that the percentage of smartphone possession is much higher now. In this case all students had smart phones.

**Discussion**

It can be observed that students did find the online reading to be enjoyable; this was identical across the English language proficiency levels. There seems to be a clear indication that students felt their English reading and listening was improving due to the Raz-kids© application. If students believe their English skills are improving due to the Raz-kids© application hopefully this will create a virtuous cycle in which students believe their English is improving due to the application, so they use the application more and their English continues to improve.

**Implications for teaching**

Online Extensive reading is not necessarily a replacement for reading books, and especially graded readers. Graded readers are written for language learners with carefully graded vocabulary and grammar, and the majority of stories are written for teenagers and young adults, but online reading has
many advantages being easily accessible for students and in a medium familiar to them. This research aimed to show how online extensive reading could addresses some of the obstacles of conventional extensive reading. The problems of time and pressure to teach to a test using prescribed textbooks are answered by the fact that Raz-Kids is used entirely outside the classroom. Similarly the reading materials are all available within the application so teachers do not need to purchase and manage them. Although it had been hoped that the gamification built into the application would motivate students it seems that less than half the students were motivated to use the application because of the gamification. However, the Learner management system is very easy to use. The teacher does not need to check books in or out and can see how many books have been read and listened to as well as monitoring how much time students spend in the application. Due to this quantity of data, in the future other motivational activities, such as scoreboards and giving prizes for the students who read the most should be trialed in the classroom to discover their effect on increasing the amount of reading undertaken by students.

**Implications for institutions and administrators**

The final data from this study, which is useful for teachers and administrators to realize, is that nearly all students have smart phones. Schools do not necessarily need to provide a large quantity of expensive hardware in order to introduce technology into the classroom. In this case two iPod, were available for students to borrow, but these were not used. University funds would probably be better spent providing equipment for teachers, or software for students. Another very important finding is that most students used the application on public transportation. Providing ample access to mobile devices or computers in the university will not necessarily increase the amount of time that students spend studying, however with students using their own devices for study the university should set up a system by which students can charge their phones during the day. Some students stated that they could not study on the way home, due to lack of battery.

**Conclusion**

Although the amount of reading carried out by students was disappointing and possibly as a result the students did not make as large English proficiency gains as the researcher had hoped, students did read more than in the past. It is also hoped that through the autonomy and enjoyment of the activity student learning habits may have changed. The fact that students thought their English proficiency had improved is very important. Storey, Gibson, and Williamson, (2006) also found disappointing gains in TOEIC score based on extensive reading. However on investigation it was discovered that students who read more than 52 minutes per week did makes gains in TOEIC scores. When students were occasionally seen reading on their devices they were focused on study. As many students come to university with a negative view of English having endured years of fairly boring grammar translation,
anything that can be done to make learning English enjoyable is to be promoted and encouraged.

**Areas for future research**

There were some problems with the project. Firstly, during the semester students used the application on average twelve minutes per week. As other researchers have recommended a minimum of one hour a week in order to make significant gains in language proficiency, if students are going to make significant language proficiency gains it is important to increase the quantity of reading being done by students (Waring, 2000). Secondly Lee (2012) states that for extensive reading to be effective longer is better. Although one semester can show gains, it would be preferable to conduct a study over a minimum of a year. Finally more research should be carried out on the differences between high-level and low-level English proficiency students and their use of the online extensive reading application.

**Bibliography**


（受付日：2015.12.8）
Appendix 1

Raz-kids Questionnaire

1. Using ‘Razkids’ was fun.
   Strongly agree | Agree | Disagree | Strongly disagree
   1 | 2 | 3 | 4

2. I read more books to buy body parts for my robot.
   1 | 2 | 3 | 4

3. I think my reading has improved due to ‘Razkids’.
   1 | 2 | 3 | 4

4. I feel my listening skills have improved due to ‘Razkids’.
   1 | 2 | 3 | 4

5. I would like to continue using ‘Razkids’ after this course is finished.
   1 | 2 | 3 | 4

6. The audio helped with my comprehension.
   1 | 2 | 3 | 4

7. Using ‘Razkids’ was convenient.
   1 | 2 | 3 | 4

8. ‘Raz-Kids’ was more enjoyable than reading paper books.
   1 | 2 | 3 | 4

   1 | 2 | 3 | 4

10. ‘Raz kids’ books were too easy for me.
    1 | 2 | 3 | 4

11. How much would you be prepared to pay to use ‘Raz-kids’ per year?
    a. 0 yen  b. 500 yen  c. 1000yen  d. 2000 yen
    Choose all that apply 反複回答可

12. When did you use ‘Raz-kids’?
    a. Weekdays 平日  b. Weekends 週末
    c. Evenings 夜  d. Lunchtimes or free periods 昼食時か休み時間
    Other please list その他

13. Where did you use ‘Raz-Kids’?
    ‘Raz-kids’ はどこで利用しましたか。
a. On public transport 公共交通機関  

b. In café or restaurants カフェやレストラン  

c. At university 大学キャンパス内  

d. At home 家  

Other please list. その他  

14. What devices did you use to read books on 'Raz-kids'?  
‘Raz-kids’ を利用するのには何を利用しましたか。  

a. Smart phone スマホ  

b. tablet computer タブレット  

c. home computer 家のパソコン  

d. university computer 大学のパソコン  

Other please list. その他  

What activities do you think help to improve your English ability the most?  
どのアクティビティがあなたの英語を一番上達させたと思いましたか。  

Which activities in English do you enjoy the most?  
どの英語のアクティビティを一番楽しみましたか。  

Do you have any plans to learn English in the future? If so what?  
将来英語をもっと学ぼうと思いますか。もしそうであれば、どうやって勉強しますか。