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Extensive graded reading in the liberal arts and sciences

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Abstract

For this research, learners did extensive graded reading (EGR) with traditional graded readers, and they also interacted with short graded stories in the liberal arts and sciences (LAS). This study describes the purpose and format of the LAS stories used by hundreds of university students and adult learners in Japan. It summarizes the results of two semester-long pilot projects done with 10 students in 2008 and 24 students in 2009, and it compares how both these groups perceived their experiences of doing EGR with traditional graded readers in combination with graded stories in the liberal arts and sciences. Lastly, this study examines how students learned vocabulary from the LAS stories that they used. The results support the idea that learners enjoy, are motivated by, and can gain vocabulary knowledge through using short graded stories in the liberal arts and sciences.

Keywords: extensive reading, liberal arts and sciences, vocabulary, motivation

Many applied linguists have argued compellingly for extensive graded reading (EGR) as a vital or even indispensible aspect of language education (Day & Bamford, 1998; Hafiz & Tutor, 1989; Nation, 1997; Renandya & Jacobs, 2002; Renandya, 2007; Waring, 2006). For example, Waring (2006) emphasizes that EGR enables learners to repeatedly experience comprehensible and meaningful language in context and that this experience helps them integrate and deepen their linguistic knowledge. Nation (1997, p. 4) summarizes a "wide range of learning benefits" from various forms of extensive reading, including improvements in reading, listening, oral language, and even writing. Iwahori (2008) shows that EGR can effectively help learners improve their rate of reading fluency and general language proficiency. Day and Bamford (1998, pp. 32–39) summarize the results from ten of eleven EGR programs that helped learners improve vocabulary, oral skills, general language proficiency, and student attitudes about language learning.

Clearly EGR stands as an effective and appealing approach to second language teaching and learning. Moreover, teachers have many EGR resources for the classroom, such as the Oxford, Penguin, and Cambridge graded readers, and researchers continue to produce interesting studies that help promote and develop this approach (Brown, Waring, & Donkaewbua 2008; Cobb, 2007; Huang & Liou, 2007).

Nevertheless, as researchers develop the theory and practice for EGR, we need to continually

address its limitations and weaknesses. One weakness comes from the lack of graded non-fiction texts that we can use extensively (Cobb, 2007; Hill, 1997). The Footprint Reading Library (Waring, 2007) presents real-world non-fiction stories that are graded, and they come with video from National Geographic Digital Media. In addition, The Oxford FactFiles (Lindop, 2008) also present non-fiction in a graded format. These are excellent materials, but they represent the minority of graded readers today, which are primarily fiction.

Waring (2009) claims that 90% of what people read in daily life is non-fiction. Because learners need to read non-fiction, and because we generally lack non-fiction graded readers, EGR could benefit from additional ways for using non-fiction texts for language learning. In this paper, I argue that the liberal arts and sciences (LAS) provide a compelling way to present non-fiction graded texts to second language learners. LAS education will be defined in some detail below, but in general, it deals with a broad array of vital topics meant to critically engage students in the learning process. Thus, graded LAS materials have the potential not only to benefit learners linguistically, but as will be described in greater detail below, these materials may also help educate learners in a broader and more holistic sense as well.

This paper discusses the potential of LAS in EFL in the following ways. (1) It defines and defends the liberal arts and sciences in an EFL context, especially for secondary and higher education. (2) It describes existing materials in the liberal arts and sciences that have been successfully used with over 200 learners from two Japanese universities and with staff from an international hospital in Japan. (3) It summarizes the qualitative results of two semester-long pilot projects done with 10 students in 2008 and 24 students in 2009, and it compares how both these groups perceived their experiences of doing EGR with graded readers in narrative fiction and with graded stories in the liberal arts and sciences. (4) For the 2009 group of 24 students, it summarizes the quantitative results of a preliminary study that looked at vocabulary learning through using LAS texts.

Briefly stated, the results of these two pilot projects support the idea that learners enjoy, are motivated by, and can learn English vocabulary through short graded stories in the liberal arts and sciences. This project also supports the hypothesis that learners enjoy these LAS stories as much or more than traditional graded readers, and that they believe they are benefiting from LAS stories linguistically and educationally.

Defining and Defending Liberal Arts and Sciences in Language Education

Put simply, the liberal arts and sciences provide for comprehensive learning in the sciences, social sciences, and humanities. LAS educators aim to help learners gain knowledge skills and intellectual tools for becoming more effective global citizens (Hovland, 2006). These tools and skills include the following (Forest & Kinser, 2002, pp. 401–403):

1. critical thinking
2. analytical reading
3. multiple-solution problem solving
4. learning how experts think and learn
5. developing social and global knowledge

6. gaining self-knowledge and moral values
7. integrating knowledge across disciplines

The liberal arts and sciences have a rich purpose and engaging nature, with the aspiration of educating people for life and work (Wolniak, Seifert, & Blaich, 2004). LAS educators aim to provide a holistic and empowering education in arts, drama, humor, cinema, culture, language, society, nature, philosophy, spirituality, wisdom, health, and mind. They also aim to help learners develop aesthetic, ethical, scientific, logical, and critical thinking. These "learning values" are not just important for success at school, but they also benefit the workplace and community. Learning values are important because "the most important result of a liberal arts education is learning how to learn" (Forest & Kinser, 2002, p. 403).

The liberal arts and sciences encompass the whole scope of human knowledge, and a broad LAS education can help people become informed citizens who participate responsibly and intelligently in democratic and free societies (Knauer, 2005). University educators are responsible to create, develop, assess, and maintain a dynamic LAS curriculum and a faculty to teach it, so that this liberal education can significantly contribute to the general education of the public (Chambliss, 2009; Wolniak, Seifert, & Blaich, 2004).

Besides the above rhetorical and anecdotal support, scholars have recently begun to do empirical research on the liberal arts and sciences. This kind of research is complex and still preliminary in nature. But in one major study, (Wolniak, Seifert, &Blaich, 2004), researchers followed 900 students for their first three years of study at 16 colleges and universities. The study claimed that students who received strong liberal arts emphases and experiences had statistically positive outcomes in many areas, including reading comprehension, critical thinking, scientific reasoning, writing skills, openness to diversity and challenge, and plans for going on to graduate school. In another major study, (Seifert et al., 2008, p. 123), researchers found that a holistic liberal arts experience developed the following characteristics in learners: "intercultural effectiveness, inclination to inquire and learn for a lifetime, psychological well-being, and leadership." Institutions tend to foster these liberal arts outcomes by creating learning environments that emphasize intellectual arts over professional skills and that blend student-student and teacher-student interaction in and outside the classroom.

Space will not allow for an in-depth review of the empirical literature on the liberal arts and sciences, but the same questions about its influence on undergraduate education also apply to language education. That is, as we develop an LAS curriculum for language learners, we should not only research the potential linguistic benefits, but we should also begin to study the broader educational benefits as well.

The liberal arts and sciences can provide a comprehensive vision for language teaching, and this is because they reflect the grand vision of liberal education and the university. But the point at hand is that language educators can simplify and translate this vision into an extensive body of short and simple graded texts that serve as LAS primers. And we can do this in a way that learners will find just as interesting, motivating, and helpful as traditional graded readers. In fact, in this study, students indicated that they preferred the LAS content (just slightly) to traditional graded readers.

Method

Describing Graded LAS Texts

The materials piloted and tested for this project are available at the online magazine BeeOasis.com (*a Basic and Essential English Oasis of Arts and Sciences in Stories*). With language learners in mind, editors have published stories in the magazine for their permanence and significance in the liberal arts and sciences. For example, there are stories about important scientific or technological breakthroughs or about famous artists who have produced classical or renowned works. Some stories are original, and others are repurposed from the public domain or from the simple English Wikipedia. For the short term, editors have casually chosen a somewhat random buffet of significant topics for stories, but in the future, they will need to create a more complete storehouse of LAS topics and texts that will give learners scores of stories to choose from.

These LAS stories are graded into five levels or steps. Table 1 shows how editors grade texts, using the word bands from the BNC or British National Corpus (Cobb, 2009; Heatly & Nation, 1994) at <lextutor.ca/vp/bnc>. The BNC divides word frequency into bands of 1000 words, and these LAS stories are graded on these bands. Editors follow a two-step process for grading and profiling stories. First, after composing the text, they profile it for lexical frequency with the BNC profiler. If, for example, an editor is targeting a story for Step 2, then he ensures that 95% or more of the words are in the top 2000 words of the BNC. The editor does this by exchanging out the lower frequency words with higher frequency words until 95% of the words in the text come from the BNC 2000 word band. Editors choose the 95% coverage to fit with the principle that learners can read enjoyably and improve vocabulary if they know 95% (preferably more) of the words in a text (Hirsh & Nation, 1992; Laufer, 1989, 1992). This percentage of coverage also helps learners guess unknown words from context, without the aid of a dictionary (Laufer, 1997; Nation, 1990).

Table 1. *Grading system for LAS stories in 5 steps*

Step	Description	SMOG grade	BNC lexical grading	Word count
1	Very Easy	3–5	95% of the words are in the BNC top 1000	200–250
2	Easy	6–8	95% of the words are in the BNC top 2000	200–275
3	Middle	9–10	95% of the words are in the BNC top 3000	225–275
4	Advanced	10–11	95% of the words are in the BNC top 4000	250–300
5	Near Native	11–12+	95% of the words are in the BNC top 5000	250–400

Secondly, after the editor profiles a text for lexical frequency, he may often give it a subordinate check for readability. Editors use the SMOG measure for readability, which stands for the Simple Measure of Gobbledygook. The SMOG algorithm gives a readability estimate that generally compares with other readability measures (McLaughlin, 1969). This gives editors a helpful and secondary measure for grading texts based on reading ease that they can use cautiously as a guideline. In this way, editors have two ways for grading texts, primarily for lexical frequency, and secondarily for readability. Learners have indicated, through numerous surveys, informal interviews, and comprehension checks that the levels of the LAS stories are appropriate for them. That is, they claim that the texts are "just right" in difficulty, especially

when they claim to know 95% or more of the words.

Participants and Data Collection

The participants for this study were first and second year students at Tokyo Christian University who had an intermediate level of English. Participants belonged to an integrated skills course called Total English Level B, which used extensive graded reading and learning high frequency vocabulary as two main engines of study. The students were required to read on average 4 pages per day in a graded reader of their choice, from the Oxford, Penguin or Footprint graded reader series. They used a reading log (see Appendix A) to keep track of their reading progress. Data was collected from two different groups of Total English B students on two occasions, once in the Fall of 2008, and once in the Spring of 2009. The 2008 group consisted of 10 students, and the 2009 group consisted of 24 students. The following chart shows their graded reading activity for the terms under study.

Table 2. *Summary of student reported reading log data*

Term	Reading days 10-week term	Class hours 30 x 70 minutes	Page average all students	Max pages read	Min pages read	Median pages	Students
Fall 2008	81 Days	35 Hours	305	594	195	269	10
Spring 2009	77 Days	35 Hours	244	594	56	264	24

In this chart, "Reading Days" refer to the total number of rows on the students' reading logs. Generally it refers to the total number of days students could read during the 10-week term. In a 10-week term, students would generally have three 70-minute classes per week, for a total of 30 classes and 35 class hours in the term. There are breaks, holidays, and variations in a 10-week term, and that is why the total number of reading days can vary and why there are more than 70 reading days in a 10-week term. There was a difference between the two groups for "Page Average All Students" and "Minimum Pages Read." This was possibly due to outliers in the data.

In addition to the graded readers, students read short, graded stories in the liberal arts and sciences, and this data is included in the survey. For the 2008 group, students could receive four pages of graded reading credit for one LAS story of about 250–300 words. In the 2009 group, students could receive two pages of credit for reading one LAS story. Obviously, students in the 2009 group received less credit for one story, and this also may explain why their page average was lower. The different requirement for both groups should not have impacted the survey results because the difference is not relevant to the focus of the survey. In both cases, however, the teacher gave credit to students for reading LAS stories online in order to encourage them to read and listen to these texts independently.

Besides the online LAS stories, students used classroom versions of these stories as well. The classroom texts were fill-in-the-blank cloze versions of the LAS stories, using n^{th} word deletions or high frequency vocabulary deletions. (See Appendix B for an example.) Students listened to a recorded version of the story one time while filling in the blanks, and then they compared their answers with classmates. Usually, they needed to listen a second time, and after that, the whole class would check their answers with the teacher. After checking the cloze, students responded to a number of questions on a worksheet that dealt with vocabulary and comprehension. The teacher also asked the students to count the words in the text that they did not know. Then students checked a chart that calculated what percentage of words they knew in a text based on

their individual totals of unknown words. This quick check consistently showed that students generally knew about 95% or more of the words in every text done in class.

For the 2008 group, students did 10 classroom versions of the LAS stories; the 2009 group did 12 LAS stories in class. Both classes had 35 hours of instruction, and LAS stories amounted to about one-third of the total class hours in each semester. Stories done in class did not count for the total pages in student reading logs, but the students could count these stories in their logs if they read them again outside of class. At the end of the terms, both groups of students completed the survey (Appendix C) that compared their impressions of the graded readers and the LAS stories.

Learners Impressions of LAS Stories and Graded Readers

The teacher prepared a 10-point Likert scale for a survey that focused on the reading activities that learners did over the course of the semester. The survey posed 10 questions in Part A about traditional graded reading, and 10 questions in Part B about LAS stories. Questions in Part A and B mirrored each other in order to compare students' impressions of the two ways of doing reading. LAS stories in the survey are referred to as BeeOasis stories.

For the 2008 group, 9 of 10 students responded to the survey, and 24 of 24 students completed the survey in the 2009 group. In addition to the survey, the teacher triangulated it with informal interviews, comprehension checks of the graded texts, and with clear instruction (and motivational talks) about extensive graded reading. The scale is presented here as Table 3.

Table 3. *10-point likert scale*

Circle the numbers 1–2–3–4–5–6–7–8–9–10 for your opinion.									
1 Very Strongly Disagree	2 Strongly Disagree	3 Disagree	4 Disagree a Little	5 Barely Disagree Don't Know	6 Barely Agree Don't Know	7 Agree a Little	8 Agree	9 Strongly Agree	10 Very Strongly Agree

Discussion

Positive Preliminary Results

The survey revealed positive results about learners' impressions of LAS stories compared with traditional graded readers. These results show the potential and promise of blending an extensive graded reading program with a program of graded reading and listening in the liberal arts and sciences. Though preliminary quantitative results will be reported below, and they are the most important kind of results for validating this kind of approach, the qualitative impressions reported here are still important. This is simply because these impressions touch on factors concerning motivation and enjoyment that are hard to quantify. The point is that if learners do not find LAS stories motivating and enjoyable, the stories will likely become dull, hard, and obligatory tasks instead of enjoyable activities that students can easily add to a lifestyle of learning.

Question 1–2

Question 1 gives us data on how much learners read with graded readers and LAS stories. Question 2 gives student impressions about how these texts helped them learn English. It is difficult to compare the mirrored versions of Question 1, but we do see how much learners used the LAS stories outside of class. In 2008, students did 10 LAS stories in class, and they averaged 5 LAS stories outside of class. In 2009, students did 12 LAS stories in class, and they averaged 11.3 LAS stories outside of class. Over the two terms, students averaged about 4 pages per day with the graded readers. This data should show us that students read enough with graded readers and LAS stories in order to give informed opinions about them. Question 2 simply shows that learners felt that both graded readers and LAS stories helped them learn English. This data, at the very least, shows that students perceive LAS stories as just as helpful for learning English as graded readers.

Question 1–2	2008	2009	AVE
1. About how many pages did you read per day (on average) using Graded Readers? Circle the number.	3.63	4.33	3.98
1. We did *x* BeeOasis stories in class. About how many BeeOasis stories did you read online? Write the number.	5.25	11.3	8.28
2. I feel that using Graded Readers helps me learn English.	8.50	7.67	8.08
2. I feel that reading and listening to BeeOasis stories (inside and outside of class) helps me learn English.	8.63	7.54	8.08

Question 3–4

Questions 3–4 deal with interest and motivation. Regarding interest (Question 3), learners indicated that LAS stories were a bit more interesting and enjoyable than the graded readers. More importantly, (Question 4) learners felt that this interest and enjoyment also gave them a little more motivation for reading LAS stories than the traditional graded readers. Though this is preliminary data, these learners appear to agree that both traditional graded readers and LAS stories are interesting and motivating, and that the LAS stories have a slight edge in this regard.

Question 3–4	2008	2009	AVE
3. Graded Readers are interesting and enjoyable.	7.50	6.65	7.08
3. BeeOasis stories are interesting and enjoyable.	8.13	7.83	7.98
4. Graded Readers are interesting and enjoyable, so I want to read them.	6.88	6.42	6.65
4. BeeOasis stories are interesting and enjoyable, so I want to read them.	7.55	7.71	7.73

Question 5–6

Questions 5–6 deal with lessons about life and educational value. The researcher intended that these questions gather data on how learners perceive the *significance* of learning with graded readers and LAS stories. Significance relates broadly to the idea of a liberal arts education, as defined above, that learners would gain general knowledge and intellectual tools and skills for life. These questions may need to be refined for future research; however, at this point, they do give us some helpful insight. Learners appear to agree that both graded readers and LAS stories help them gain important lessons about life and valuable knowledge for their education, and on

this point too, subjects gave the LAS stories a slightly higher approval.

Question 5–6	2008	2009	AVE
5. The stories in Graded Readers help me learn important lessons about life.	7.25	6.63	6.94
5. BeeOasis stories help me learn important lessons about life.	7.88	6.67	7.27
6. The stories in the Graded Readers give me valuable knowledge for my education.	7.50	6.92	7.21
6. BeeOasis stories give me important knowledge for my education.	7.88	7.38	7.63

Question 7–8

Question 7 is similar to Question 2 in that it asks about the helpfulness of the two kinds of reading. But Question 7 asks about doing traditional graded readers *outside* of class and LAS stories *inside* of class. Learners seemed to find the in-class LAS graded listening and reading to be more helpful than doing traditional graded reading outside of class. This is the readers' impression, and we would need to do actual language testing to see which approach actually yields better results for learning English. However, affectively, learners seem to find the in-class LAS stories (Appendix B & D) just slightly more helpful than extensive reading, which they do outside of class. The reasons for this are unclear. Perhaps learners felt that listening to the LAS texts was an added bonus, or perhaps they felt that they benefited from group work, information gap conversations, the cloze, and question and answer times, or the interaction with the teacher and classmates. These are all issues for future research. Question 8 asks about the design of the materials, and learners seemed to favor the online design of LAS materials over the traditional graded readers. Though this may not seem like a serious point, and the two kinds of materials are essentially different types, many online educational materials are often made with only minimal concern for design. Question 8 underscores the importance of making online materials that are well designed and that also have content of the highest quality. Traditional graded readers are well written and designed, but good web materials have some advantages, including accessible audio, photos, videos, and hyperlinks to related information. In any case, learners indicated that they were satisfied with the design of the online content, and they seem to count this as another positive aspect of the LAS materials piloted for this study.

Question 7–8	2008	2009	AVE
7. Doing Graded Readers outside of class helped me improve my English.	7.88	6.88	7.38
7. Doing BeeOasis stories in class helped me improve my English.	8.88	7.54	8.21
8. Graded Readers have a nice design and are easy to use.	7.75	6.54	7.15
8. The BeeOasis website has a nice design and is easy to use.	8.57	8.04	8.31

Question 9–10

Questions 9–10 finish up the survey, asking about audio and difficulty. Learners indicated that they would have liked audio with their traditional graded readers, and that it was good that many LAS stories came with audio. Audio CDs are available with traditional graded readers, but at considerable additional cost, and learners cannot use these CDs as easily as online materials. Currently, many of the online LAS stories have audio. When a student chooses to read a story, an audio player appears below the text. The learner can start, stop, and scroll through the audio. Learners clearly indicated that they prefer to have audio, and this shows that they perceive the

value of graded and extensive *listening*. Regarding Question 10 and the grading of materials, learners felt that both the traditional graded readers and the LAS stories were just about right in difficulty.

Question 9–10	2008	2009	AVE
9. It would be good to have audio (a CD or MP3) of Graded Readers.	8.13	6.71	7.42
9. It was good that BeeOasis stories have audio.	8.75	8.04	8.40
10. Graded Readers were too easy (1–2–3), just right (4–5–6), or too hard (8–9–10)	5.25	5.25	5.25
10. BeeOasis stories were too easy (1–2–3), just right (4–5–6), or too hard (8–9–10)	5.63	5.38	5.50

This brief survey has its limitations, the main problem being that it simply does not deal with actual learning outcomes. That problem will be covered in a preliminary sense below. Learners may have also felt the need to please the teacher while filling out the survey. For this reason, learners completed it anonymously, and the teacher left the room while students were doing it. In spite of its limitations, this survey does give us valuable insight. We need to know if our learners enjoy and are motivated by the materials they use for learning English, and this data seems to indicate that learners enjoy and are motivated to use graded readers and LAS stories. More importantly, for the purposes of this study, learners appear to see the value of graded stories in the liberal arts and sciences, and this is a meaningful factor as we go on to investigate actual learning outcomes.

Vocabulary Learning with Short LAS Stories

Besides the above survey, the 2009 group took a small battery of pretests and posttests to check vocabulary learning as they interacted with the LAS stories. This type of test was not done with the traditional graded readers because students were reading different books at the same time. The following outlines the method used in the testing process.

Prepare the pretest. Before they do an LAS story in class, students take a pretest of 10 vocabulary items that appear in that story. Words are not chosen randomly, but are chosen based on two criteria. First, the teacher chose words based on frequency bands. In fact, 82% of the words for these tests came from the BNC 2000–3000 range. (See Table 4 below.) Second, based on intuition, the teacher chose words that he thought the students might not know.

Administer the pretest. Students are told that there is no grade for this test. After finishing it, the tests are collected. The teacher does not go over the test with the students in class, and the students do not see the answers.

Use the story that contains pretest words. Students then interact with the LAS story that contains those 10 words. The story is done as a listening cloze activity (Appendix B) or a speaking information gap activity (Appendix D).

Repeat steps 1–3 with a second story. On another class day, students may repeat steps 1–3

with a second and different LAS story.

Do the posttests. About one week after working with the second story, the teacher informs the students that they will be given the same two quizzes again for a total of 20 questions. For posttests, students are told they will receive a grade. The teacher tells them that they can review for the quizzes by reading and listening to online versions of the two stories. Students do not see a list of the vocabulary items, and they do not see the pretests that they took earlier (See Note 1).

The researcher followed this procedure so that the students were pretested and posttested on a total of 50 words over the course of the semester. Table 4 shows the words listed by test, and by the British National Corpus (BNC) frequency bands. BNC profiling was done at <lextutor.ca/vp/bnc/>, (Cobb, 2009; Heatly & Nation, 1994).

Table 4. *List of words for pretests and posttests*

Test 1		bright, victory, celebrate, empty, stone, accuse, burial, falsely, condemn, tomb
Test 2		exam, regular, vision, normal, diet, blindness, lamp, shield, injury, diabetes
Test 3		attraction, prison, campaign, bury, honor, accompany, military, symbol, remain, pregnant
Test 4		perform, tap, mental, tired, memorize, researcher, pill, divide, fake, hurt
Test 5		avoid, extremely, occur, spread, prevent, ache, habit, liquid, infection, sore
BNC Band	Percent	Words
BNC 1,000	6%	divide normal researcher
BNC 2,000	52%	attraction avoid blindness bright campaign celebrate diet empty exam extremely honor hurt injury memorize mental occur perform pregnant prevent prison regular remain spread stone tap tired
BNC 3,000	30%	accuse ache burial bury falsely habit infection lamp liquid military shield sore symbol victory vision
BNC 4,000	6%	accompany condemn pill
BNC 5,000	4%	diabetes fake
BNC 7,000	2%	tomb

The test questions also included a check box for item discrimination. That is, for each question, learners did two things. First, they checked whether they thought that they knew the word or not, and second, they chose their answer from among 4 choices. The questions looked like this (Table 5).

Table 5. *Pretest and posttest question format*

Choose A, B, C, or D for the WORD closest in meaning. Check (✓) if you know or don't know it.							
1. PERFORM						❍I know --- ❍I don't know.	
A ❑	to do	B ❑	to step	C ❑	to repeat	D ❑	to come
2. TAP						❍I know --- ❍I don't know.	
A ❑	to fill	B ❑	to tell	C ❑	to hit	D ❑	to stir

Table 6, below, shows the results for the pretests and posttests. Students improved on every posttest, and the overall increase was an average of 1.67 points for all posttests. The lowest average point increase (0.83) was on Quiz #3, and the highest average point increase was (2.72) on Quiz #5. On average, students got 60% of their answers correct on the pretests and 76% of their answers correct on the posttests.

From a teacher's perspective, this data is positive for a number of reasons. First, the general improvement is positive, and this is true especially because the data includes all students, including outliers who may be less motivated to learn, or who may have spent less time reviewing the stories before the posttest. Secondly, it is positive because students needed to prepare for the quizzes on their own. They were simply told that they needed to review the stories before retaking the vocabulary test. Though they had seen the words once on a pretest, there was at least a week delay between tests, and they would have had to recall on their own which words would be on a posttest. If the teacher had spent time explicitly teaching students the vocabulary items in the stories and tests, then posttest scores would have most likely increased much more. Thus, the increase in vocabulary scores appears to be at least a temporary positive by-product of a learning process that students found enjoyable and motivating.

Table 6. *Pretest and posttest averaged results (24 students, 5 quizzes, 10 words per quiz)*

Quiz	Pre correct	Pre incorrect	Post correct	Post incorrect	Increase
Quiz 1	6.22	3.65	7.61	2.22	1.39
Quiz 2	6.09	3.04	8.39	1.39	2.30
Quiz 3	6.00	3.14	6.82	2.55	0.82
Quiz 4	7.29	2.59	8.41	1.59	1.12
Quiz 5	4.33	4.89	7.06	2.50	2.72
Average	5.99	3.46	7.66	2.05	1.67

In addition to these averaged results, for each question on the pretests and posttests, students were asked whether they knew or did not know the meaning of the target words. This data appears to show a fairly strong correlation between students claiming that they knew a word and the actual results they got on the pretests and posttests. Table 7 shows how well students predicted whether they knew a word or not. The "Pretest Yes" column shows how many words the students thought they knew out of 10. The "Pretest Correct" column shows how many words the students actually got correct out of 10. The pretest correlation here was pretty high, at 0.92.

The "Posttest Yes" column shows how many words (out of 10) the students thought that they got right on posttests, and the "Posttest Correct" column shows how many words they actually got correct on the posttests. For the posttests, students were still pretty good at predicting whether they knew the words or not, but they did not predict as well on the posttest as they did the pretest. On the posttest, the correlation between predicting and knowing was 0.79. This data is hard to interpret, but it may indicate this. Students may have been confident on pretests in predicting words that they had not seen before or words that they had little contact with. This would explain the high correlation on the pretest. For the posttests, students had already met the target words in the stories and pretests, but perhaps they were more cautious in predicting whether they knew the words or not. For future research, if this pattern continues, we may need to interview students in order to better understand the reason for the difference in correlations.

Table 7. *Item discrimination*

Quiz	Pretest Yes	Pretest Correct	Posttest Yes	Posttest Correct
Quiz 1	5.78	6.22	7.61	7.61
Quiz 2	6.65	6.09	9.39	8.39
Quiz 3	5.55	6.00	7.59	6.82
Quiz 4	6.71	7.29	8.71	8.41
Quiz 5	3.67	4.33	5.50	7.06
Correlation	0.92		0.79	

Conclusion

In spite of its relatively small scale, this study begins to satisfy two interesting hypotheses. The first conclusion deals with perceptions. Learners perceive that they enjoy extensive graded listening and reading in the liberal arts and sciences. They also perceive a learning benefit. These perceptions are important because they influence motivation, and learners indicated that LAS stories were intrinsically motivating for them. As teachers know, motivation is a vital aspect of language learning and teaching, and this is especially true, for example, in Japanese higher education where for many students, "required for graduation" is the main motivator for taking English courses.

Since the 34 students worked with more than 20 LAS stories (and even more graded readers) over the course of two semesters, we can also safely conclude that student opinions and perceptions were informed by a sufficient amount of experience with the materials. We should value how learners perceive the study materials that they use because this gives us important information regarding the affective realm of learning. That is, if learners do not enjoy learning materials, if they do not perceive a learning benefit, and if the materials do not motivate them, then we can assume that something is not right. On the other hand, if learners perceive learning benefits, enjoyment, and motivation, then we should assume that something is right.

Besides the perceived enjoyment, motivation, and learning benefits, learners also appeared to learn vocabulary in the process. This learning was not necessarily incidental because the teacher told learners that they were going to be tested on the words in the LAS stories. However, it was perhaps slightly incidental in the sense that the teacher spent no planned classroom time teaching the vocabulary items on the test. The only exception to this occurred when a student might have asked a question about vocabulary from a story that happened to be on the test, and this happened rarely.

By way of qualification, we need to see the learning result on this study in light of other research on vocabulary and extensive reading (Brown, Waring, & Donkaewbua, 2008; Day & Bamford, 1998; Day, Omura, & Hiramatsu, 1991; Pigada & Schmitt, 2006; Waring & Takaki, 2003). This research shows that the relationship between vocabulary learning and extensive reading is complex. Students can learn words from extensive reading, but learning can decay (Waring & Takaki, 2003). Students tend to do better on multiple choice type tests, and this may have skewed the results for this study. Moreover, when we look only at vocabulary learning and extensive reading, we may overlook other learning that can take place related to reading speed,

lexical collocations, and word nuance (Brown, Waring, & Donkaewbua, 2008). These are topics for future research regarding LAS stories.

These caveats are minor problems because we should not strongly expect students simply to learn vocabulary by osmosis through extensive graded reading. LAS stories provide learners with graded content for extensive reading and listening (if they do enough of them), or LAS stories augment and add variety to an existing EGR program, with the goal to help students learn language holistically. For vocabulary, teachers and learners can use these stories to learn vocabulary intentionally. They can make lists, flash cards, and tests, and students can learn this vocabulary systematically, by recycling vocabulary items on quizzes and through spaced repetition. Since the stories are graded, when students focus on vocabulary, they will not be over-burdened by it. This is because they will only find 2–5% of the words in any story to be difficult or unknown, and thus the process will be very similar to what native speakers might experience in their undergraduate classes.

But the most important potential outcome of using LAS stories goes beyond the perceived learning, enjoyment, motivation, and vocabulary acquisition. This outcome may come through the goals of an education in the liberal arts and sciences. We cannot yet claim that our EFL students will receive the benefits of a liberal arts and sciences education by using short LAS stories, but in the future we can begin to investigate how the liberal arts and sciences in language education can help learners develop aesthetic, ethical, scientific, logical, and critical thinking. For our linguistic goals, we can help learners develop a lexical and grammatical schema in the liberal arts and sciences. But beyond this, we can develop an exciting holistic approach to language teaching that has real potential for future research in applied linguistics, EFL curriculum development, and general education in the humanities, arts, and sciences.

Notes

1. On one occasion, the posttest was not a combination of two tests of 20 words, it was just one test of 10 words taken from one story.

References

Brown, R., Waring, R., & Donkaewbua, S. (2008). Incidental vocabulary acquisition from reading, reading-while-listening, and listening to stories. *Reading in a Foreign Language*, *20*, 136–163.

Chambliss, D. (2009). A neglected necessity in liberal arts assessment: The student as the unit of analysis. In C. Schreiner (Ed.), *Handbook of research on assessment technologies, methods, and applications in higher education* (pp. 291–297). Hershey, PA: Information Science Reference.

Cobb, T. (2007). Computing the vocabulary demands of L2 reading. *Language Learning & Technology*, *11*(3), 38–63.

Cobb, T. (2009). Web vocabprofile: An adaptation of Heatley & Nation's (1994) Range. Retrieved August 1, 2009 from http://www.lextutor.ca/vp/

Day, R. R., & Bamford, J. (1998). *Extensive reading activities for teaching language.* Cambridge: Cambridge University Press.

Day, R. R., Omura, C., & Hiramatsu, M. (1991). Incidental EFL vocabulary learning and reading. *Reading in a Foreign Language*, *7*, 541–551.

Forest, J. J. F., & Kinser, K. (2002). *Higher education in the United States: An encyclopedia.* Santa Barbara, CA: ABC-CLIO.

Hafiz, F. M., & Tudor, I. (1989). Extensive reading and the development of language skills. *ELT Journal*, *43*, 4–13.

Heatly, A., & Nation, P. (1994). Range [Computer program, available at http://vuw. ac. nz/lals/]: Victoria University of New Zealand.

Hill, D. R. (1997). Setting up an extensive reading programme: Practical tips. *The Language Teacher*, *21*(5), 17–20.

Hirsh, D., & Nation, P. (1992). What vocabulary size is needed to read unsimplified texts for pleasure? *Reading in a Foreign Language*, *8*, 689–696.

Hovland, K. (2006). *Shared futures: Global learning and liberal education*. Washington D.C.: Association of American Colleges and Universities.

Huang, H. T., & Liou, H. C. (2007). Vocabulary learning in an automated graded reading program. *Language Learning & Technology*, *11*(3), 64–82.

Iwahori, Y. (2008). Developing reading fluency: A study of extensive reading in EFL. *Reading in a Foreign Language*, *20*, 70–91.

Knauer, J. T. (2005). Democracy lab: Liberal learning for strong democracy. *LiberalArtsOnline*, *5*(4).

Laufer, B. (1989). What percentage of text-lexis is essential for comprehension? In C. Lauren & M. Nordman (Eds.), *Special language: From humans thinking to thinking machines* (pp. 316–323). Clevedon: Multilingual Matters.

Laufer, B. (1992). Reading in a foreign language: How does L2 lexical knowledge interact with the reader's general academic ability. *Journal of Research in Reading*, *15*, 95–103.

Laufer, B. (1997). The lexical plight in second language reading. In J. Coady & T. Huckin (Eds.), *Second language vocabulary acquisition: A rationale for pedagogy* (pp. 20–34). New York: Cambridge University Press.

Lindop, C. (2008). *Australia and New Zealand: Stage 3* (Oxford Bookworms Library, Factfiles). Oxford University Press.

McLaughlin, G. H. (1969). SMOG grading: A new readability formula. *Journal of Reading*, *12*, 639–646.

Nation, P. (1990). *Teaching and learning vocabulary*. Boston: Heinle & Heinle.

Nation, P. (1997). The language learning benefits of extensive reading. *The Language Teacher Online*, *21*(5), 13–16.

Pigada, M., & Schmitt, N. (2006). Vocabulary acquisition from extensive reading: A case study. *Reading in a Foreign Language*, *18*, 1–28.

Renandya, W. (2007). The power of extensive reading. *RELC Journal*, *38*, 133–149.

Renandya, W., & Jacobs, G. (2002). Extensive reading: Why aren't we all doing it? In J. Richards & W. Renandya (Eds.), *Methodology in language teaching: An anthology of current practice.* (pp. 295–302). Cambridge: Cambridge University Press.

Seifert, T. A., Goodman, K. M., Lindsay, N., Jorgensen, J. D., Wolniak, G. C., Pascarella, E. T., & Blaich, C. (2008). The effects of liberal arts experiences on liberal arts outcomes. *Research in Higher Education*, *49*, 107–125.

Waring, R. (2006). Why extensive reading should be an indispensable part of all language programs. *The Language Teacher*, *30*(7), 44–47.

Waring, R. (2007). *Footprint reading library: Teacher's manual 1000.* Thomson ELT.
Waring, R. (2009, October). *Building an academic vocabulary through reading*. Paper presented at the 4th JALT Joint Tokyo Conference, Toyo Gakuen Hongo Campus, Tokyo.
Waring, R., & Takaki, M. (2003). At what rate do learners learn and retain new vocabulary from reading a graded reader? *Reading in a Foreign Language*, *15*, 130–163.
Wolniak, G., Seifert, T., & Blaich, C. (2004). A liberal arts education changes lives: Why everyone can and should have this experience. *LiberalArtsOnline*, *4*(3).

Appendix A

Reading log

	Date	Pages	Book or BeeOasis	Level	Level	Level	Level	Level	Too	Just	Too
		Read	Title	1	2	3	4	5	Easy	Right	Hard
	Ex	*4*	*The Client*								
1	4/28										
2	4/29										
3	4/30										
4	5/1										
5	5/2										
6	5/3										
7	5/4										
8	5/5										
9	5/6										
10	5/7										
11	5/8										
12	5/9										
13	5/10										
14	5/11										
15	5/12										
	Total		Total Books								

READING LOG #2 DUE 5/13/09

For the top grade, you need to average 4 pages per day. By signing, you promise that this information is true. 1 BeeOasis story counts as 4 pages. Limit one per week.

Signed: _____ **Date:** _____

Appendix B

Sample in-class LAS story

The Fear of the Flu By Zoe Nova

Swine flu is a kind of influenza common in pigs. And sometimes humans catch (1)_____ too. Human (2)_____ of swine flu are not that common. But (3)_____, many people are infected at the same time. This is called an "epidemic." When an epidemic (4)_____ over a whole country or the world, it is (5)_____ a "pandemic."

On April (6)_____, 2009, the World Health Organization (WHO) made an announcement. The WHO said (7)_____ swine flu had reached pandemic Level 5. There are (8)_____ Levels (or (9) _____) to a pandemic. They (10)_____ listed here.

Phases 1-3: mostly animal infections; few (11)_____ infections.
Phase 4: (12)_____ human to human infections.
Phases 5-6: international and (13)_____ human infection.

Influenza can be (14)_____ serious. The Spanish Flu pandemic occurred between (15)_____ and 1919. It was first (16) _____ in the United States. And it (17)_____ spread across the whole world. About (18)_____ million people died. And it was the (19)_____ pandemic in human history.

The (20)_____ of influenza generally include: fever, headache, (21)_____, coughing, sore throat, (22)_____ or stuffy nose, body (23)_____, diarrhea, and vomiting. People who (24) _____ these symptoms should call a doctor as soon as possible.

To (25)_____ the flu, the Center for Disease Control (26) _____ six good health habits. (1) (27)_____ close contact with people who are sick. If you are sick, (28)_____ your distance from others. (2) Stay at home when you are sick. (3) (29)_____ your mouth and nose when you cough or sneeze. (4) Wash your hands often. (5) Avoid touching your eyes, nose, or mouth. (6) Get enough sleep. Keep active. Manage your stress. Drink (30)_____ of liquids, and eat healthy food.

Beeoasis Step	SE-Super Easy	1-Very Easy	2-Easy	3-Middle	4-Advanced	5-Near Native

THINK ABOUT IT

1. What is a pandemic?
2. When was the Spanish Flue pandemic?
3. What are some symptoms of the flu?
4. What does CDC stand for?
5. How many good health habits does the CDC suggest? What are they?
6. The word "congested" means (A) sore, (B) stuffy, (C) vomiting.

WORD FOCUS: LIST NEW OR HARD WORDS

verbal	He's a *** person. He talks a lot.

Appendix C

Survey

Circle the numbers 1-2-3-4-5-6-7-8-9-10 for your opinion.										
1 Very Strongly Disagree	2 Strongly Disagree	3 Disagree	4 Disagree a Little	5 Barely Disagree; Don't Know	6 Barely; Agree Don't Know	7 Agree a Little	8 Agree	9 Strongly åAgree	10 Very Strongly Agree	
Graded Readers										
1. About how many pages did you read per day (on average) using Graded Readers? Circle the number.	1	2	3	4	5	6	7	8	9	10
2. I feel that using Graded Readers helps me learn English.	1	2	3	4	5	6	7	8	9	10
3. Graded Readers are interesting and enjoyable.	1	2	3	4	5	6	7	8	9	10
4. Graded Readers are interesting and enjoyable, so I want to read them.	1	2	3	4	5	6	7	8	9	10
5. The stories in Graded Readers help me learn important lessons about life.	1	2	3	4	5	6	7	8	9	10
6. The stories in the Graded Readers give me valuable knowledge for my education.	1	2	3	4	5	6	7	8	9	10
7. Doing Graded Readers outside of class helped me improve my English.	1	2	3	4	5	6	7	8	9	10
8. Graded Readers have a nice design and are easy to use.	1	2	3	4	5	6	7	8	9	10
9. It would be good to have audio (a CD or MP3) of Graded Readers.	1	2	3	4	5	6	7	8	9	10
10. Graded Readers were too easy (1-2-3), just right (4-5-6), or too hard (8-9-10)	1	2	3	4	5	6	7	8	9	10
BeeOasis Stories										
11. We did 10 BeeOasis stories in class. About how many BeeOasis stories did you read online? Write the number.	1	2	3	4	5	6	7	8	9	10
12. I feel that reading and listening to BeeOasis stories (inside and outside of class) helps me learn English.	1	2	3	4	5	6	7	8	9	10
13. BeeOasis stories are interesting and enjoyable.	1	2	3	4	5	6	7	8	9	10
14. BeeOasis stories are interesting and enjoyable, so I want to read them.	1	2	3	4	5	6	7	8	9	10
15. BeeOasis stories help me learn important lessons about life.	1	2	3	4	5	6	7	8	9	10
16. BeeOasis stories give me important knowledge for my education.	1	2	3	4	5	6	7	8	9	10
17. Doing BeeOasis stories in class helped me improve my English.	1	2	3	4	5	6	7	8	9	10
18. The BeeOasis website has a nice design and is easy to use.	1	2	3	4	5	6	7	8	9	10
19. It was good that BeeOasis stories have audio.	1	2	3	4	5	6	7	8	9	10
20. BeeOasis stories were too easy (1-2-3), just right (4-5-6), or too hard (8-9-10)	1	2	3	4	5	6	7	8	9	10

Appendix D

Information gap slides

Student A faces the screen. Student B stands with her back to the screen. Student A reads the contents of the first slide. Student B listens and takes notes. On the next slide, Student A reads questions to Student B, and Student B answers. The students switch places and repeat the process with a number of slides.

Wonders of the World
The Taj Mahal is one of the Seven Wonders of the World. It was completed around 1649 by the Muslim King, Shah Jahan. Over 1,000 elephants and 22,000 workers took 22 years to build it. The Taj Majal is located in the beautiful city of Agra, India. And it stands on the banks of the River Yamuna.
Question and Answer
Q: When was the Taj Mahal completed? A: 1649. Q: How many workers built it? A: 22,000. Q: Where is the Taj Mahal? A: Agra, India, on the bank of the River Yamuna.

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