

## *Japanese EFL Reading Texts: How Readable Are They?*

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In the Japanese education system there is enormous pressure to study for and get high marks on the college entrance examinations. According to Brown & Yamashita (1995), Japanese families devote a surprising proportion of their financial and time resources toward helping their children to prepare for the exams. Many have pointed out that one result of the huge number of applicants competing for a very small number of spots at the top private and public universities is an undue emphasis on teaching material that is too difficult for students to master (Law, 1994; Takahashi, Midorikawa & Wada, 1994; Cummings, 1980). With high school English teachers forced to spend their time teaching obscure grammar points, difficult vocabulary, and reading material far above the level of their students, many classes are conducted almost entirely in Japanese (Browne & Evans, 1994). Unfortunately, this results in a situation where even after 6 years of instruction in English, most university bound high school students graduate with only a minimal ability to use English.

Over the past 11 years of teaching English, writing textbooks, and doing teacher training in Japan I have noticed that although there is a lot of discussion of improving the way spoken English is taught, many people seem to assume that there are no problems with the way reading is taught. This also seems to be true of teaching materials. Despite numerous changes made over the past few years in conversation textbooks produced by Japanese publishers for both the secondary school and university level, reading textbooks seem to have changed hardly at all. Partially as a result of my exposure to research which claims that students need to "know" 95 to 97% of the vocabulary on a page to be able to work effectively with reading materials (Hirsch & Nation, 1992; Laufer, 1992; Nation & Kyongho, 1995), I've come to suspect that Japanese high school and university reading classes utilize materials which are often too hard for the students to be able to improve their reading skills. One of the main purposes of this study is to establish the difficulty level of these texts so that the data could be utilized in future studies to highlight the gap which may exist between student reading ability and the level of the materials being used to teach them. To this end, three main research questions were posed:

1. What is the reading difficulty of Japanese college EFL reading texts?
2. How does the reading difficulty of Japanese college EFL texts compare with the difficulty of Japanese high school texts? How does it compare with that of mainstream American university and graduate school texts?
3. What simplification strategies are used to make Japanese EFL reading texts more accessible? Are these strategies similar to those used in reading texts produced by mainstream US and UK publishers?

### **Method**

#### Materials

From a pool of 26 university-level EFL reading textbooks produced by seven different Japanese publishers, and 21 ESL reading books by 11 American and British publishers, two groups of 12 texts were randomly selected (the names of the texts were written on slips of paper and drawn from a hat) for use in this study. Next, four Japanese

Ministry of Education-approved, third-year high school reading texts were selected. Finally, four American university textbooks were chosen; two undergraduate-level texts, and two graduate-level texts.

### Procedures

After the texts were chosen, one chapter from each book was selected at random, and typed into the Microsoft Word<sup>TM</sup> (Microsoft, 1995) word processing program for Macintosh. These texts were then analyzed for readability via the procedure described in the next section. Then, 24 of the texts (12 Japanese university-level EFL reading texts and 12 foreign ESL reading texts) were reviewed one by one and classified according to the predominant simplification strategy used to assist the reader with difficult words and phrases.

### Analyses

In recent years, the advent of personal computers and increasingly powerful word processor programs has led to the use of such programs by researchers to analyze the linguistic difficulty of written material. Cottler (1987) used the Flesch Readability Formula to examine the correlation between the readability of 26 New Jersey daily newspapers and circulation. Brown & Yamashita (1995) employed RightWriter<sup>TM</sup> (Que Software 1990) to establish the difficulty of reading passages on Japanese university entrance examinations by analyzing the texts via 3 readability formulas included in the program: The Flesch Readability Formula, The Flesch-Kincaid Grade Scale and The Fog Index.

In this study, reading difficulty was analyzed via the 4 readability formulas (Flesch Reading Ease, Flesch-Kincaid Grade Scale, Coleman-Liau Grade Level, and Bormuth Grade Level) included with Microsoft Word 6.1 for Macintosh. The first statistic, Flesch Reading Ease, computes readability based on the average number of syllables per word and the average number of words per sentence. Scores range from 0 to 100. According to Word's on-line manual (the CD-ROM version of this program doesn't come with a written manual), "standard writing" scores for native speakers of English averages between 60 to 70. The higher the score, the greater the number of people who would easily be able to understand the writing.

The Flesch-Kincaid Grade Level uses the same basic approach, calculating reading difficulty based on the number of syllables per word and the average number of words per sentence. In this case, though, the score indicates a grade level. For example, a score of 10.0 means that an average tenth grader would be able to readily understand the document. According to the on-line help, standard writing is approximately equal to the seventh-to-eighth grade level (7.0 to 8.0).

No specific information was available from the on-line manual regarding the Coleman-Liau Grade Level and Bormuth Grade Level except that both determine the grade level of the written material through an analysis of word length in characters and sentence length in words. Obviously, there are some important differences in the way they calculate difficulty since the scores obtained for these Grade Scales on charts 2 to 4 typically differed by about 5 full grade levels. Spangler (1980), in a review of readability indexes, described the Coleman-Liau as using a regression equation containing 4 variables (number of one syllable words/100 words, number of sentences/100 words, number of pronouns/100 words and number of prepositions per 100 words), and the

Bormuth as using a staggering 169 variables in a total of 24 different regression equations!

Additional statistics provided by the program include 3 "count" figures and 3 "averages." Although the count data by itself does not give much information about the difficulty of a passage, these counts (number of words, paragraphs and sentences) are most likely given because they provide the raw data necessary to calculate the averages and readability indexes. The 3 averages, sentences/paragraph, words/sentence, and characters/word offer another way of comparing the relative reading difficulty of different texts, with higher numbers indicating a higher difficulty.

## Results

1. What is the reading difficulty of Japanese college EFL reading texts? As can be seen from the results in Table 1, the range of readability indexes is quite large. For example, although the average Flesch-Kincaid Grade Level for all 12 titles is 8.3, individual titles ranged from a low of 2.2 for *The Speckled Band* to a high of 11.84 for *The Story of English*. This means that, at least according to the Flesch-Kincaid Grade Level, the difficulty of college level EFL reading material produced by Japanese publishers varies as much as ten full academic years. The Coleman-Liau Grade Scale and the Bormuth Grade Scale also showed similarly large high-low differences of 13.34 and 6.0 grade levels, respectively.

The statistic for average words per sentence also follows this trend with an overall average of 16.72 words per sentence, and a large range for individual titles from a low of 8.47 in *The Speckled Band*, to a high of 24.17 words per sentence in *Boy*.

It is worth pointing out that only one of the 12 books surveyed (*American Vistas*) directly makes any mention of difficulty level on the book jacket or anywhere else in the book. Interestingly, *American Vistas* was also the only book in this group produced by a Japanese subsidiary of a foreign publisher (Addison-Wesley Japan).

Despite being promoted as "university level reading texts" in the catalogs put out by the Japanese publishing companies, it seems clear that the authors and editors of the titles surveyed here had extremely different ideas about what level reading material university students are capable of dealing with.

2. How does the reading difficulty of Japanese college EFL texts compare with the difficulty of Japanese high school texts? How do they compare with mainstream American university and graduate school texts? It was felt that calculating readability indexes for Japanese high school reading textbooks (Table 2) and typical American university and graduate level textbooks (Table 3) would help to give a framework for interpreting the reading difficulty of Japanese EFL textbooks (Table 1).

Readability scores for the high school texts also varied tremendously with the chapter from *The New Age Reader* being rated as more difficult than the other texts by as much as 10 grade levels (on the Coleman-Liau Grade Scale). It should be pointed out though, that the goals and focus of Japanese high schools also vary a great deal as well. For example, one might expect that textbooks such as *The New Age Reader* or *Spectrum English Reading*, with Flesch-Kincaid Grade Scale of 12.9 and 12.38 respectively, would be used at high schools with traditions of sending a high percentage of graduates on to college, while textbooks such as *Legend English Reading* and *New Horizon English Reading*, which are much easier (7.31 and 3.33 respectively), would be used at technical or agricultural high schools, where there is no pressure or need to prepare for the English section of the university entrance exam.

Table 1 *Readability Statistics for Twelve EFL Reading Textbooks Published for Japanese University Students*

	<i>Boy</i>	<i>American Vistas</i>	<i>Sarah, Plain and Tall</i>	<i>The Culture Network</i>	<i>Polite Fictions</i>	<i>An Inter-cultural Exploration</i>	<i>Twenty Tales</i>	<i>The Speckled Band</i>	<i>The Background of American Values</i>	<i>Reading for Thinking</i>	<i>Tour of Dietary Culture</i>	<i>The Story of English</i>	<i>Averages</i>
<u>Counts</u>													
Words	1136	716	878	2005	1673	1507	291	678	1820	192	749	1377	1085.17
Paragraphs	14	14	49	20	34	24	8	22	25	4	13	9	19.67
Sentences	47	42	101	137	86	90	14	80	135	11	43	63	70.75
<u>Averages</u>													
Sentences/Paragraph	3.36	3	2.6	6.85	2.53	3.75	1.75	3.64	5.40	2.75	3.31	7	3.83
Words/Sentence	24.17	17.5	8.69	14.64	19.45	16.74	20.79	8.47	13.48	17.45	17.42	21.86	16.72
Characters/Word	4.27	4.48	4.40	5.30	4.44	4.97	4.15	3.82	4.63	4.72	4.76	5.14	4.59
<u>Readability Indexes</u>													
Passive Sentences	12.77%	19.50%	0%	21.17%	12.79%	7.78%	21.43%	1.25%	13.33%	18.18%	20.93%	19.5%	14.05%
Flesch Reading Ease	73.83	70.17	88.56	45.2	60.77	47.89	72.70	95.59	64.12	53.50	52.94	42.97	64.02
Flesh Kincaid Grade Scale	8.46	7.4	3.5	10.51	9.49	10.52	7.36	2.2	7.53	10.9	9.89	11.84	8.3
Coleman-Liau Grade Scale	10.30	9.87	5.26	11.85	9.17	13.2	12.24	3.37	9.51	10.58	10.59	16.71	10.22
Bormuth Grade Level	10.0	9.20	7.80	9.80	9.70	10.60	10.30	6.50	9.20	10.10	10.10	12.50	9.65

Table 2 *Readability Statistics for Four Third-Year Japanese High School Reading Textbooks*

	<i>The New Age Reader</i>	<i>Legend English Reading</i>	<i>Spectrum English Reading</i>	<i>New Horizon English Reading</i>	<i>Averages</i>
<u>Counts</u>					
Words	1220	1737	1011	986	1238
Paragraphs	25	38	10	13	21.50
Sentences	56	106	43	85	72.50
<u>Averages</u>					
Sentences/Paragraph	2.24	2.79	4.30	6.54	3.96
Words/Sentence	21.79	16.39	23.51	11.64	18.33
Characters/Word	5.2	4.49	4.90	4.12	4.67
<u>Readability Indexes</u>					
Passive Sentences	16.7%	18.87%	11.63%	3.53%	12.68%
Flesch Reading Ease	41.55	70.0	42.85	89.87	61.06
Flesh Kincaid Grade	12.9	7.31	12.38	3.33	8.98
Coleman-Liau Grade	15.75	9.37	15.7	5.82	11.66
Bormuth Grade	11.20	9.20	11.20	7.80	9.85

Table 3 *Readability Statistics for Four USA College-Level Textbooks*

	<i>The Port- able MBA</i>	<i>Organizational Behavior in Education</i>	<i>Averages</i>	<i>Basic De- bate</i>	<i>Public Speaking Today</i>	<i>Averages</i>
<u>Counts</u>						
Words	1112	1154	1133	1049	1273	1161
Paragraphs	16	21	18.50	25	35	30
Sentences	41	46	43.50	52	65	58.50
<u>Averages</u>						
Sentences/Paragraph	2.56	2.19	2.37	2.8	1.86	2.33
Words/Sentence	27.12	25.9	26.71	20.17	19.58	19.87
Characters/Word	4.91	5.45	5.18	5.19	4.97	5.08
<u>Readability Indexes</u>						
Passive Sentences	39.2%	15.2%	27.2%	46.2%	9.2%	27.7%
Flesch Reading Ease	41.92	27.70	34.81	44.25	55.90	50.07
Flesh Kincaid Grade	11.89	14.66	13.27	11.33	9.94	10.63
Coleman-Liau Grade	16.87	17.29	17.08	15.94	14.62	15.28
Bormuth Grade Level	11.50	11.60	11.55	11.20	10.90	11.05

Table 4 has been arranged from left to right in order of expected difficulty. That is, it is assumed that third-year high school texts should be easier to read than the Japanese college texts, and the Japanese college texts should be easier to read than either the American university or graduate school textbooks.

Table 4 *Readability Statistics Summarized by Textbook Type (Averages)*

	<u>High School Textbook Averages</u>	<u>EFL Reading Textbook Averages</u>	<u>American University Textbook Averages</u>	<u>American Graduate Textbook Averages</u>
<u>Counts</u>				
Words	1238	1018.5	1161	1133
Paragraphs	21.50	19.67	30	18.50
Sentences	72.50	70.75	58.50	43.50
<u>Averages</u>				
Sentences/Paragraph	3.96	3.83	2.33	2.37
Words/Sentence	18.33	16.72	19.87	26.71
Characters/Word	4.67	4.59	5.08	5.18
<u>Readability Indexes</u>				
Passive Sentences	12.68%	14.05%	27.69%	27.21%
Flesch Reading Ease	61.06	64.02	50.07	34.81
Flesh Kincaid Grade Scale	8.98	8.3	10.63	13.27
Coleman-Liau Grade Scale	11.66	10.22	15.28	17.08
Bormuth Grade Level	9.85	9.65	11.05	11.55

Generally speaking this holds true, except for the relationship between the Japanese high school and college EFL texts. Surprisingly, a comparison of the three readability indexes shows that the high school texts are, on average, about a grade level higher in reading difficulty. If the premise that Legend and New Horizon are not used at high schools which focus on preparing students for the college entrance examination is accepted, and are thus excluded from the readability averages for the high school texts, the difficulty gap becomes much more pronounced. In this case the high school scores for Flesch-Kincaid, Coleman-Liau and Bormuth would be 12.64, 15.7, and 11.2, an average of about 3.5 grade levels higher than the Japanese college texts, and nearly equivalent in level to the American university-level textbooks.

Although not unexpected, it should also be noted that for each statistic, the averages for the two groups of Japanese textbooks and the two groups of American textbooks were closer in level to each other than they were to the books in the other group. For example, on the Coleman-Liau Grade Scale and the Bormuth Grade Scale, the Japanese high school and university texts differed from each other by only 0.20 to 1.44 of a grade level, and the American university and graduate texts differed from each other by only 0.50 to 1.80 of a grade level, while the gap between the Japanese and American textbooks differed from each other by 1.90 to 6.88 of a grade level.

3. What simplification strategies are used to make Japanese EFL reading texts more accessible? Are these strategies similar to those used in reading texts produced by mainstream US and UK publishers? As can be seen in Table 5, Japanese EFL reading texts tend to deal with problematic vocabulary and grammar by relying on unmarked glosses at the end of the passage or the end of the book. In this case, "unmarked" means that there is no indication in the text itself as to which words and phrases are explained in the gloss. By far the most widely used strategy was an English-Japanese gloss at the end of the book (10 out of the 12 books surveyed).

*Table 5 Comparison of Strategies Used to Simplify Reading Passages in 12 Japanese EFL Texts and 12 US/UK Reading Texts (some ESL books used more than 1 pre/post reading activity)*

<u>Simplification Strategy</u>	<u>Japanese EFL Reading Texts</u>	<u>US/UK ESL Reading Texts</u>
E-E vocabulary gloss (unmarked) end of passage	3	1
E-J vocabulary gloss (unmarked) end of passage	2	0
E-J vocabulary gloss (unmarked) end of book	4	0
No gloss	2	1
E-E vocabulary gloss (marked) end of book	0	1
E-E vocabulary gloss (marked) end of passage	0	8
E-J vocabulary gloss (marked) end of book	0	0
E-J general notes (marked) end of passage	1	1
Pre-reading vocabulary activities	0	10
Post-reading vocabulary activities	0	5

In contrast, books produced by British and American publishers tended to rely almost exclusively on marked glosses. For these books, the predominant pattern was a marked, English-English vocabulary gloss at the end of each reading passage (8 of the 12 books surveyed employed this technique). It is interesting to note that even in the one case where a book produced by an American publisher added Japanese notes at the end of the passage (Suzuki, Rost and Baxter, 1987), it still did not follow the typical pattern used by Japanese publishers of leaving the difficult words unmarked.

Another clear difference between the two groups of books was the way they handled the teaching of difficult vocabulary. All of the books produced by American or British publishers employed pre-reading and/or post-reading vocabulary activities. Of these 12 books, pre-reading activities were more prevalent, appearing more than twice as many times as post-reading activities. Interestingly, not one of the twelve Japanese textbooks surveyed employed pre or post-reading vocabulary activities of any kind.

### Discussion

What are the implications of these results for reading students and teachers in Japan? The 3 readability indexes used in this study indicate that the average reading level of the twelve Japanese college reading texts used in this study is about the same as reading materials which typically would be used by native speakers in the ninth or tenth grade. Except for two titles (*Sarah, Plain and Tall*, and *The Speckled Band*), none of the books in this study could be classified as simplified based on readability statistics alone.

High school level readers were even more difficult, with two of the four texts in this study showing readability levels similar to intermediate college texts for native speakers. This gap between the reading ability of most Japanese high school and university students and the difficulty of the reading materials they typically encounter in the classroom may explain the oft-cited tendency of Japanese students to over rely on dictionaries while reading English texts (for example, Bamford, 1993).

The difficulty level of ESL texts produced by American and British publishers, on the other hand, seems to be decided by fairly clear criteria. For example, the *Oxford Bookworm* series of ESL readers (Oxford University Press, 1995), classifies each reader according to the specific number of headwords used in the text. Each of the 6 levels, which vary from 600 to 500 headwords, is based on West's (1953) frequency count data, with the texts in the lowest level (600 words) containing only the 600 most frequently encountered headwords.

Even in cases where the criteria are not so clear, all the texts produced in the US and the UK, which were reviewed in this study, gave some indication as to the level of student the material was targeted for, usually on the back cover of the book. In contrast, none of the reading materials produced in Japan gave any direct indication about the level of the material (except for the high school texts, which at least gave an indication that they were produced exclusively for third-year students).

Another factor which may contribute to the reading difficulty of the Japanese university-level texts is their general approach to assisting readers with difficult vocabulary. Whereas 10 of the 12 books produced in America and Britain marked the difficult words in the texts and provided definitions either at the end of the passage or at the end of the book, only one of the books produced by the Japanese publishers marked difficult words. Furthermore, none of the Japanese texts provided pre or post-reading vocabulary activities, whereas almost all of the foreign texts did so.

It is possible that some of these differences may be due to the effect which SLA research can sometimes have on commercially produced materials in the US and the UK. For example, researchers such as Carrell (1988), point to the well established high correlation between knowledge of word meanings and the ability to comprehend passages containing those words. Nation (1990, p.135) too, believes preteaching vocabulary and glossing to be useful activities when the emphasis is on helping students to improve their overall reading ability. Although few findings in our field are undisputed, the ones cited here do seem to justify the approaches taken by the AS and UK publishers.

### The Need for More Data

Due to budgetary constraints, all data analyzed in this study had to be entered into the computer manually, drastically reducing the amount of writing from each book included in the analysis. In the future, a more comprehensive study could easily be undertaken by researchers with access to a flatbed scanner and a good OCR program.

### Overreliance on Readability Statistics

Although there are precedents for using readability indexes to establish reading difficulty in the past (for example, see Brown & Yamashita, 1995) and although such indexes are widely used in word processing and grammar checker computer programs such as Microsoft Word (1995) and WordPerfect (1988), they are by no means universally accepted as accurate measures of reading difficulty by reading researchers.

For example, in a study conducted by O'Hear, Ramsey & Richard (1990) which asked 311 college students to rate the readability of 3 first year college composition texts, serious discrepancies were found between student perceptions of reading ease and the predictions made by several readability formulas such as the Flesch.

An earlier study conducted by Olson (1984), which looked at how four readability formulas (the Flesh Reading Ease Formula, the Dale-Chall Formula, the Gunning-Fog Index, and the McLaughlin SMOG Grading) to determined the reading grade of secondary school instructional materials, concluded that the formulas ignore much of our theoretical knowledge about the reading process and that each had been developed on statistically "shaky ground." These studies bring into question the validity of the readability formulas: That is, we need to ask if they are they really giving us an accurate measure of reading difficulty.

Perhaps one way to support the validity of the indexes used in this study would have been to compare the readability statistics results with an independent assessment of reading difficulty by a panel of reading experts (and then establish a high interrater reliability), or with a survey of students' perceived difficulty of the texts, as in the O'Hear study. Another possibility might have been to add some other, non-formulaic methods of establishing passage difficulty such as doze tests.

### Establishing Reading Difficulty Through an Analysis of Vocabulary

In the original design of this study I had hoped to be able to triangulate the readability findings with an analysis of vocabulary level, as well as establish the approximate vocabulary knowledge of "typical" university students. To this end, I administered the Vocabulary Levels Test (Nation, 1990) to three different classes of students at my university to establish a baseline for comparison with the vocabulary level of the various texts they typically encounter. The results in Table 6 show that the average student in the classes tested knew only about 60% of the first 2000 words on the General Service Word List (West, 1953), obviously far below the recommended 95 to 97% comprehension level quoted earlier.

As was previously mentioned, the vast majority of Japanese EFL reading texts used in this study could not be classified as simplified readers. In an experiment designed to establish what vocabulary size is necessary to be able to read unsimplified texts, Hirsh & Nation (1992), analyzed the vocabulary in three short children's novels and concluded



that a vocabulary of at least 5000 word families would be necessary for most students to be able to read even children's novels without difficulty. Results from the Levels Test indicate that the average EFL student in my school only knew about 35% of the vocabulary words encountered at the 5000 level.

If I had taken the research further in this direction, the next step would have been to analyze the texts used in this study in terms of number of headwords from the General Service Word List and compare the results with students' scores on the Levels Test. Unfortunately, the only program I was able to locate which could accomplish this analysis, VocabProfile (Nation, 1993), is currently not available for the Macintosh operating system which I used to enter all my data.

Table 6 *Results of the Vocabulary Levels Test on Three Second-Year, Non-Major English Classes (Economics & Engineering Majors)*

<u>Number</u>	<u>Percent</u>	<u>2000</u>	<u>3000</u>	<u>5000</u>	<u>Univ.</u>	<u>10,000</u>
<u>Correct</u>	<u>Known</u>	<u>Word</u>	<u>Word</u>	<u>Word</u>	<u>Word</u>	<u>Word</u>
		<u>Level</u>	<u>Level</u>	<u>Level</u>	<u>Level</u>	<u>Level</u>
18	100%					
17	94.4%	1				
16	88.8%	3				
15	83.3%	5	2			
14	77.7%	11	2			
13	72.2%	7	7			
12	66.6%	11	6			
11	61.1%	4	3			
10	55.5%	6	9	3	1	2
9	50%	5	9	11		1
8	44.4%	5	12	3		4
7	38.8%	3	4	11		4
6	33.3%	2	3	12	1	7
5	27.7%	1	2	13	6	11
4	22.2%	1	3	8	16	15
3	16.6%	1	2	9	8	7
2	11.1%		1	3	13	9
1	5.5%		1	2	14	4
0	0%					
<u>Number of Students</u>		66	66	66	66	66
<u>Average Number Correct</u>		11.37	9.75	6.57	2.63	4.37

However, there is no strong consensus on the relationship of vocabulary level to readability. Marshall & Gilmore (1993) for example, point out that knowledge of vocabulary alone may not be enough to insure comprehension of reading texts. Their study, which looked at the relationship between Papua New Guinean students' knowledge of subtechnical vocabulary and reading ability, concluded that the activation of appropriate background knowledge (content schema) can also be a critical factor in reading comprehension.

#### The Need to Gather More High School Textbooks

The range of reading difficulty reported for the four high school reading texts in this study is extremely large. More data needs to be gathered to find out if there are indeed

certain levels of reading difficulty associated with certain types of high schools. One possible approach might be to gather every third-year, Ministry of Education-approved reading textbook, do a more extensive readability analysis of them, survey a random sample of high schools throughout Japan to determine which texts they are using, and then do a correlation analysis to see if there is a significant relationship between readability of text and type of school.

### Conclusion

Although the exploratory nature of this project makes it difficult to draw any strong conclusions, several clear trends in the data may warrant further study in the future.

The first main trend noticed was that college reading textbooks produced by Japanese publishers seem to vary tremendously in level, with most texts far above the reading ability of most Japanese college students. Future studies could be done to establish the reading ability of the students and contrast this with the difficulty of the materials they typically encounter in class.

The second, and perhaps more surprising point to emerge from the data was that high school reading texts appear to be even more difficult in terms of readability than the college texts. As was mentioned in the previous section, a comprehensive review of all Ministry of Education-approved reading texts could be the first step in several interesting studies that look at either the gap between student reading level and readability, or the relationship between readability and type of high school the texts are used at.

The third major trend was the clearly different approach to simplification which Japanese and American/British publishers took in their respective reading texts. Here, it might be valuable to do a study which surveys far more titles than were reviewed in this study, and then makes an attempt to control for the various types of reading texts (i.e. readers, anthologies, literature, etc.).

Despite the limitations of this study it seems clear that many Japanese high school and college students are required to learn from reading texts far beyond their reading ability. Although there is very little that can be done to directly encourage changes in the way English is taught at the high school level, it is hoped that the findings in this study could be the basis for future studies which might ultimately have a positive influence on the choices EFL reading teachers in Japan make with regard to the texts they use in class.

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## Appendix

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