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A Comparative Study on the Use of English Reading Strategies between Chinese and Japanese Senior High School Students

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1. Introduction

Written words surround us daily. They confuse and enlighten us; they depress and amuse us; they sicken and heal us. At every turn, we, members of a literate society, are dependent on twenty-some-odd letters and a handful of other written symbols for significant, even life-and-death, matters in our lives (Brown, 2001). No one would deny the fact that we surely read something or other every day. Therefore, reading plays a very important role and is deeply involved in our daily life. As we know, reading is the foundation of all knowledge. Whether in reading textbooks or extracurricular materials, readers can be exposed to many new words and phrases, and thus can develop their productive language skills like speaking or writing. Many researchers and teachers have tried hard to find ways to help students read successfully in English, but there are many factors that affect reading proficiency. So we administered a questionnaire in China and Japan to find out what is the most difficult part in English reading for Chinese and Japanese senior high school students, and as a result, we know it is 'unknown words'. Thus, this study aims to investigate the differences, if any, in the ways of decoding English vocabulary during reading processes between Chinese and Japanese students, and to analyze why those differences exist. It is also hoped that this study will provide valuable information on reading instruction for Chinese and Japanese EFL teachers.

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2. Theoretical Background

According to Joe (1993), Huang (2000), and Lin (2003), insufficient vocabulary knowledge is a key factor that causes many students' frustrations in English reading. So, if unknown words might cause the biggest trouble as our questionnaire suggested, we should teach our students how to manage them while reading. Furthermore, in Garner and Kraus (1981-1982), they suggested that there is a strong correlation between reading strategy knowledge and reading performance. Thus, it can be crucial to successful reading that students should have good knowledge and control of reading strategies.

However, we know of no studies on reading strategies that took cultural differences into account, especially those in Chinese and Japanese English education contexts. So we planned to investigate the topic from the following three points of view;

1. What kinds of reading strategies are being used by Chinese and Japanese senior high school students?
2. If there are any differences between the strategies the Chinese and Japanese students use or do not use, why do such differences exist?
3. What sort of reading strategies should the students develop in order to continue their studies successfully?

3. Current Situations of Teaching English in China and Japan

Before starting the study, it will be helpful to know about current situations of English

education in China and Japan. In the People's Republic of China, English is a required subject from primary to post-graduate schools and assumes an important position in the school curriculum as well as in people's daily lives. From the mid 1990s, together with Chinese and Mathematics, English has become one of the core elements in China's university entrance examination.

In Japan, English has been taught at school as a foreign language for many years since the Meiji Era. It is also one of the main subjects of the school curriculum and therefore, one of the most important subjects for the entrance examinations to high schools or colleges. Consequently, Japanese students are interested in learning English mainly for examinations which will lead to their future careers.

In both China and Japan, English is a major subject in school curriculum and, therefore, plays a very important role in university entrance examination. But in China, English proficiency is required before and after university education. On the other hand, to many Japanese students, English is not directly connected to their future career. It indirectly affects their career in the sense that it is needed only for entering (famous) universities.

4. Study

4.1. Questionnaire

In order to find the most difficult part in English reading, a questionnaire was administered in both China and Japan in October 2007.

In China, 112 grade-two students of Jin Zhou Senior High School, located in Dalian, China, responded to the questionnaire. The questionnaire consisted of one question "When you read English material, which parts do you consider are difficult for you?" with five answer choices; (A) unknown words, (B) grammar, (C) lack of background knowledge, (D) lack of reading strategy, (E) length of the material. Students were asked to choose three out of these five answers and order them according to their difficulty levels. The answer item judged as the most difficult by any student was assigned 3 points, the second difficult one, 2 points, and the third difficult one, 1 point. The total points each item gained are considered to indicate the difficulty level of that factor.

The same questionnaire was also carried out in three senior high schools in Toyama, Japan, at the same time and 106 answer sheets were gathered. 65 were from grade-two students; 41 were from grade-three students. The results are as follows;

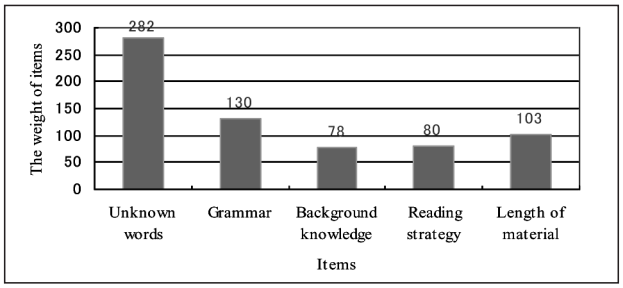

Figure 1. The weight of items (Chinese Students)

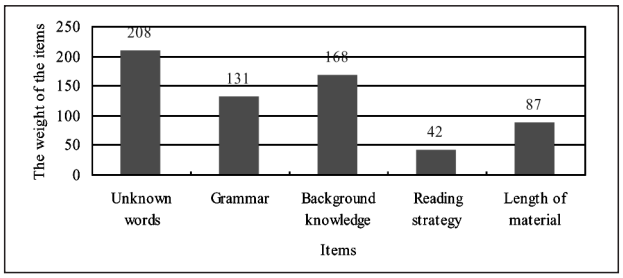

Figure 2. The weight of items (Japanese Students)

Two things might be worthy to notice. One is that 'unknown words' is the most difficult part in English reading for both Chinese and Japanese senior high school students. The other is that Japanese students have, comparatively, more difficulty in reading English than Chinese students when they do not have enough background knowledge for the material they read. We will refer to the latter point later.

4.2 Experiment

In order to know how students are really using reading strategies, we conducted a small-scale research using the think-aloud method and

the interview.

4.2.1 Think Aloud

As the title implies, 'think aloud' means 'say aloud what one thinks'. Skillful readers unconsciously use a range of strategies to catch the meaning from the text. The 'think aloud' method is to monitor these uses of reading strategies on real-time basis.

In October 2007, five Chinese students from Dalian Jin Zhou Senior High School in China and nine Japanese students from a senior high school in Toyama, Japan, 'thought aloud'. Material with a few difficult grammatical and vocabulary items was thought to be appropriate for think-aloud, and one was chosen after deliberate and careful consideration of the participants' curiosity and language competence.

The students were asked to read the chosen text and mark the first 5 unknown words. Then, they were asked to say aloud into the microphone what they thought while trying to find out the meanings of the text or unknown words. But, as is expected, 'think aloud' is not an easy task for ordinary students, especially with a microphone. So, we conducted an interview with all of those students after their thinking aloud to know what strategies they did use for each unknown word.

4.2.2 Think Aloud Results

There is no fixed list of reading strategies, but structural analysis, schematic analysis, consulting a dictionary, skipping, or ignoring are generally used. There might be some who will assert that guessing be included in the list, but guessing is not a strategy in the same sense that, for example, structural analysis is a reading strategy; guessing often refers to the entire process of managing unknown words in reading. For example, one can guess the meaning of some unknown word 'on the basis of' the structural/schematic analysis of the text. Unless one skips or ignores, every unknown word must be guessed its meaning somehow.

Our interview told us a lot of interesting differences of strategy choice between Chinese and Japanese students. First, all the 5 Chinese students used structural analysis, but only one out of nine Japanese students used it. Second, seven out of nine Japanese students used skipping or ignoring, but no Chinese students. Third, five out of nine Japanese students used 'consulting a dictionary', but no Chinese students. Fourth, Chinese students did use only two kinds of strategies, that is, structural analysis and schematic analysis. (Three Chinese students used schematic analysis.) Fifth, no Japanese student used schematic analysis. Roughly speaking, Chinese students chose structural or schematic analysis, and Japanese students, on the contrary, chose skipping/ignoring or 'consulting a dictionary', which means that *Chinese students tried guessing for all their unknown words, but Japanese students did not try for most of their unknown words.* The number of students we interviewed was so small that it may be implausible to get some generalization, but a very clear difference appeared from our interview about strategy choice between Chinese and Japanese students.

Why, then, did such a difference exist? To investigate it, we paid attention to the relation between vocabulary knowledge and guessing frequency, for vocabulary knowledge is fundamental to reading comprehension and one cannot understand text without knowing what most of the words mean (Anderson and Freebody, 1981). Also, according to Nation (1990), we could make a successful guessing only when we have 98% or more coverage of vocabulary of the page we read. Furthermore, reading strategies used by efficient and non-efficient learners are said to be different (Block, 1986; Singhal, 2001). So we thought it might be helpful to calculate vocabulary size and compare it with guessing frequency.

We adopted 'unknown word percentage' of each student for the material they read as an

indicator of vocabulary size and made the calculation as follows ('5' is the first 5 unknown words):

unknown word percentage = 5÷(number of different words before the 6th unknown word)×100

Figure 3 shows the relation between unknown word percentage and guessing frequency. C1 - C5 are Chinese students, and J1 - J3 are Japanese students. C2 student's guessing frequency is 100%, which means the student tried guessing for all the five first unknown words. (Nine Japanese students tried think-aloud, but only three out of nine were able to say aloud into the microphone. Others might be too shy. As this correlation mentioned 'guessing frequency', in other words, how often guessing was tried, it will be preferable to include only the three.)

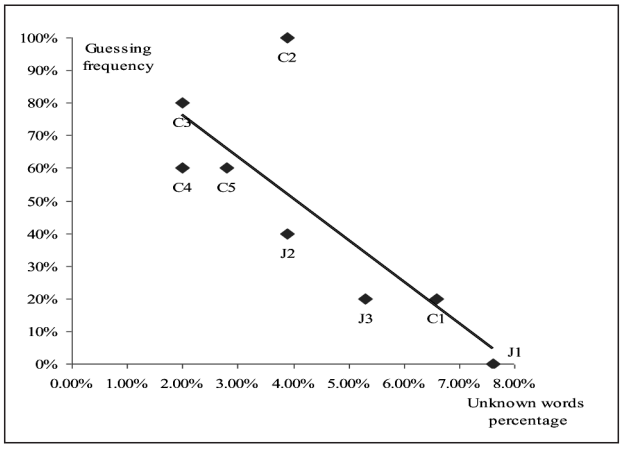

Figure 3. Correlation between unknown word percentage and guessing frequency

It should be noted that guessing frequency is not the same as successful guessing. So, Figure 3 indicates at most, but rather clearly, that the larger the vocabulary size is, the more often students tend to try the guessing.

5. Discussion

Our experiment suggested that Chinese and Japanese students may have different reading tactics for unknown words. If it is the case, in what process, or education, have they 'mastered' their different strategies? There could be many hints on this question, but we would like to consider two things in this paper; general vocabulary size and textbook styles.

5.1 General Vocabulary Size

In October 2007, a vocabulary size check test adopted from Nation (1990) was administered to 113 grade-two students of Jin Zhou Senior High School in Dalian, China and 153 grade-two students of a senior high school in Toyama, Japan. Both schools seem to be of the almost same academic level, judged from the percentages of students who enter their national universities. (Figure 5 was originally made by a senior high school teacher who actually administered the test. We borrowed it by his permission.)

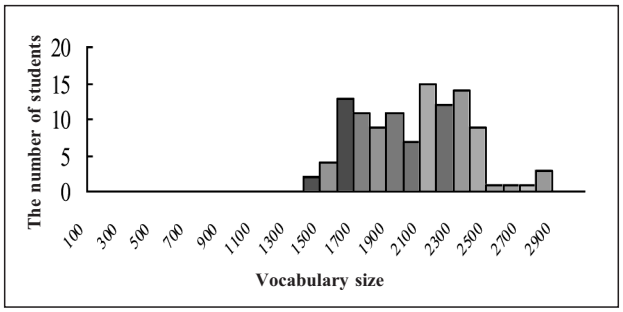

Figure 4. Vocabulary size, Chinese students (n=113)

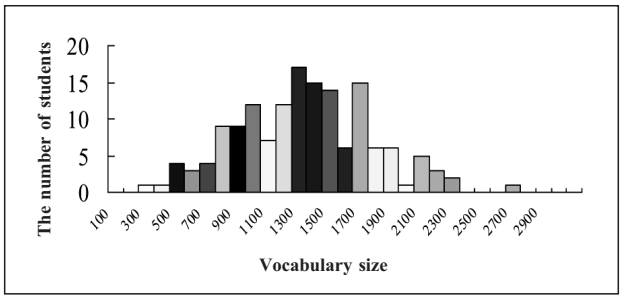

Figure 5. Vocabulary size, Japanese students (n=153)

In this test, Chinese students' average vocabulary size was 2,063, which is 1.6 times larger than that of Japanese students' 1,289. This size difference, also seen in Figure 3, is not surprising, because in China, students begin to study English from the third year in primary school and when they graduate from junior high school, their vocabulary size is expected to reach 1,600, according to the Chinese *English Course of*

Study. On the other hand, in Japan, students begin to study English after entering junior high school and their vocabulary size is expected to reach 900 at the end of the three years' junior high school education, according to the Japanese *English Course of Study*. 1,600 is about 1.8 times larger than 900. As is already mentioned, the larger vocabulary can make the guessing task easier and let the students try to guess more often. That also means they do not have to skip/ignore or consult a dictionary.

5.2 Textbook Types

Textbooks are the main source for building vocabulary. So it might be beneficial to look carefully into the textbooks actually used in Chinese and Japanese senior high schools.

Textbooks are characterized by various aspects; syllabus type, topic selection, material length, drills, and so on. Of these aspects, syllabus type and drills do look much alike in both of these countries' textbooks, and topic selection is culturally driven, especially in China. Then, how about material length or running words? It is highly possible that material length could affect the ways students learn, and teachers teach, the textbooks.

China has national-standard English textbooks, and the first year textbook for senior high school has about 2,300 running words. In Japan, there are several standard textbooks, so we selected 4 first year textbooks and calculated its average: it was about 1,400. This time again, the Chinese one is about '1.6 times' longer than the Japanese average. But it is too simplified an idea that the longer textbook is tougher to read. It is 'vocabulary density index' that really matters.

Vocabulary density index is a kind of text-readability indicator, and is calculated by dividing the number of different words in the text by the total number of words of the text. To word it more practically, it means 'the average times any one word appears in the text concerned'. Naturally, if a vocabulary density index is high, many words occur repeatedly in that text and readers feel it easier to read, irrespective of the length of the material. In fact, the vocabulary density index of the Chinese textbook was 3.0, and the average density index of the 4 Japanese textbooks was 2.8. Chinese textbooks may be a little easier to read, but there was no significant difference.

If two textbooks have a similar density index, the longer one has some merits. First, longer material naturally includes more vocabulary than shorter one with similar density, which helps students build up richer vocabulary. Second, longer material does not give students spare time to consult dictionaries. Of course, students using longer textbooks have gained richer vocabulary and do not have to often use a dictionary. No or less use of dictionaries is one of the key factors to read a lot. And last, longer textbooks, also naturally, are likely to include stories of various topics. If it might be the case that we cannot read stories without background knowledge on the topics, we are very poor readers. Various topics in the textbooks can encourage us to read even materials we are unfamiliar with. The least need for background knowledge by Chinese readers in Figure 1 seems to reflect it. So, all of these merits can tell us that we have a sort of synergistic effect here.

6. Conclusion

In both Chinese and Japanese *English Course of Studies*, students are expected to guess the meanings of unknown words. However, as far as our data suggest, Chinese students seem to try guessing against every unknown word they meet in reading, but Japanese students seem to avoid or dislike guessing; they skip/ignore unknown words or are quick to reach for dictionaries. Two interrelated observations may help us infer the reasons behind these differences.

First, Chinese senior high school students generally have a larger vocabulary than Japanese

students. Second, Chinese students use longer textbooks and read more than Japanese students. Both of these observations can give us an explanation on why Chinese, but not Japanese, students do not hesitate over guessing the meanings of unknown words.

Other factors may also affect students' like or dislike for guessing. Wei (2006) administered a questionnaire to 50 Chinese senior high school English teachers. One of the questions was on how to deal with new words in English reading. 65% answered that they encourage students to guess the meanings from the context; 20% answered that they explain the meanings of new words while reading; 14% answered they explain them before reading; 1% answered they do not explain. Clearly, Chinese English teachers have admitted values in guessing.

Of course, it will be implausible to assume that Japanese English teachers do not permit the value of guessing in reading foreign languages. However in Japan, the university entrance examination gets in the way.

In Japan, English entrance examination requires much translation. Students have to translate English into Japanese and vice versa. In translation, accuracy is regarded much more important than other aspects. Therefore, Japanese English teachers repeatedly tell their students "When you meet unknown words, you must quickly look for the meaning into your dictionary" and students should obey it. However, in China, English entrance examination does not have translation part; the heaviest burden for students is reading comprehension. So, if students' reading speed is not fast enough, they cannot answer all the questions. Thus, in order to improve their reading ability and speed, most of Chinese senior high school students practice themselves to read fast and try to guess the meanings of unknown words instead of consulting dictionaries.

The purpose of this study was to investigate factors which have affected students' reading ability and pick up some tips on some 'good' reading strategies on the basis of a comparison between Chinese and Japanese students learning English, and then, English education itself. From our discussion, it may be reasonable to assume that textbook characteristics should affect learning style and learning itself in some fundamental way. We can see it in the different preferences for reading strategies by Chinese and Japanese senior high school students. Furthermore, question types in the university entrance examination could also have a definite influence on English education in both countries. In the days when English is not a language for some native nations, but an indispensable communication tool for so many nations, strategies like skipping/ignoring or anytime-consulting-a-dictionary sound rather unpreferable or of less help. Teachers, and administrators, should pay more attention to what reading strategies, how and why, they will instruct to their students.

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