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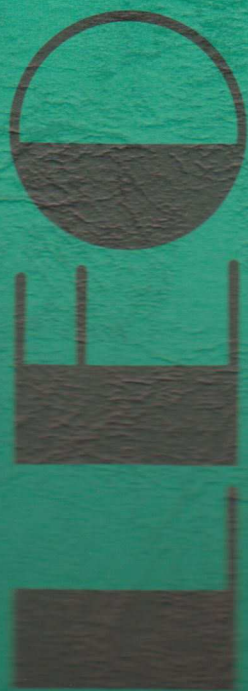
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-On Relative Clause-

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1. Introduction

In English classes, Chunk Reading (CR) is conducted by a number of teachers. Learners read a text in which slashes are put with a sense group. CR is used when a teacher instructs their students how to read a text, or slashes are employed in a reading material.

The effectiveness of this method is examined in several studies, and CR is found to be effective empirically. First, CR can prevent the bad habit of reading back within the sentence to translate from English to Japanese (Kameyama, 2003; Ohtagaki & Ohmori, 1993). Secondly, reading speed improves more when they practice reading a passage with slashes than one without them (Komaba et al., 1992; Oikawa, 1996). The third effect is that since CR is regarded as a method to help learners to read without going back to the beginning of a sentence, the practice results in the improvement of listening ability (Kameyama, 2003). The last effect is that CR can enhance their comprehension of text (Ohtagaki & Ohmori, 1993; Oikawa 1996). However, the last claim that CR can help understand the passage more remains an open question concerning the previous studies on CR (Hijikata, 2004).

Present research aims to investigate the effectiveness of CR in terms of text comprehension. From the researcher's experience of teaching English to junior high school students, the effectiveness varies from one learner to another. In order for the CR to take effect, the researcher believes we must take into account learners' developmental readiness. In other words, it is necessary to investigate how much learners need to have English proficiency to make use of CR. Therefore, the main purpose of the present study is to identify the learner's level where CR can facilitate comprehension of text.

2. Background

2.1. Chunk reading

Numerous attempts have been made by researchers to demonstrate the effectiveness of CR. First, we will review some studies under the investigation of the effectiveness on CR according to learner's English proficiency.

Oikawa (1996) inquired into the relationship between the effects of CR and the vocabulary size of the learners. The participants were 164 university students, and they were divided into three groups based on a vocabulary test which asked the knowledge of the vocabulary that appeared in the reading material used in the study: Higher Group(HG), Middle Group(MG) and Lower Group(LG). Half of the students read one passage with chunking (chunked with a slash), and the other half read one without chunking. The effects of CR concerned were reading comprehension and reading speed. The following results were obtained: the LG gained higher scores when they read the passage with slashes than those who read it without them, whereas the MG was not affected by slashes. By contrast, the HG underperformed when they read it with slashes.

Komaba et al. (1992) examined the effects of CR in terms of two conditions: one is a CR where learners read a passage by chunking in a meaningful unit by themselves based on the rules they learned in the study, and the second condition is that they read one which is already chunked. These two groups practice reading under each condition using a computer for four weeks. The participants were 165 first year and 164 second year high school students, and the effects on their reading comprehension and reading speed were compared with their general English proficiency level. The results of the study were summarized as follows: Higher-level learners improved more when they read a passage by chunking on their own; however, Lower-level learners benefited more when they read a passage which was chunked already. Moreover, Komaba et al. pointed out that it seemed to be necessary, taking into account the huge linguistic distance between

Japanese and English, for learners to be given the rules about chunking in order to utilize the effect of CR. In other words, to utilize the effect of CR, learners need to be developmentally ready where they can understand the meaning of chunking. However, how much do they need to know? If they had high proficiency, chunking sometimes inhibited the understanding of a passage (Oikawa 1996). The important thing is to identify the appropriate learner's proficiency where CR facilitates comprehension.

2.2. Chunking

This section overviews the unit of chunking used in a passage in previous studies, and determines the one in the present research. The unit of chunking used in the study on CR varies. Several researches are selected to demonstrate how it differs, and one research which examined the optimal unit of chunking is presented later. Finally, the unit of chunking employed in this study is proposed.

Komaba et al. used six rules to decide where to chunk or put a slash. These criteria are principally based on linguistic analysis:

1. "Preposition + Noun" should be chunked together.
2. "To + Verb + Object (etc.)" should be chunked together.
3. A slash should be put before a conjunction, an interrogative, relative clause, etc.
4. A longer subject should be grouped as one.
5. Adverbial phrases which express time or location should be grouped together.
6. A slash should be put before a punctuation mark.

Komaba et al.

Oikawa employed the criteria of chunking decided based on the intuition of

several English teachers, which was finally modified by the researcher himself. The reason why this approach was taken was that chunking rules sometimes produce an inappropriate chunk from the point of understanding a sentence.

Kameyama (1992) chunked from a smaller unit to a larger unit in the process of instruction to accommodate the learner's level. For instance, the sentence "The child drank the milk after he ate the rice." had slashes inserted as follows:

1. The child / drank / the milk / after / he / ate / the rice.
2. The child / drank the milk / after he ate the rice.
3. The child drank the milk / after he ate the rice.

Kameyama

Three researches above all employed different kinds of chunking criteria.

Under these circumstances, the following study aimed to examine how learners chunk a text.

Hijikata (2004) investigated whether the optimum unit of chunk differs according to the learner's proficiency and the type of reading (intensive reading or rapid reading). The result of the study indicated that learners frequently change the unit of chunking, and the unit doesn't always have to be a linguistic unit, such as a phrase or clause. While some high-level learners read a text efficiently in a smaller chunk, other low-level learners read more efficiently with a larger unit of chunking. Therefore, this study conclusively indicates that it is nearly impossible to decide an appropriate unit of chunking for all the learners.

The present study will employ a unit of chunking which can facilitate the comprehension of the text most effectively. The researcher set the purpose of this research to investigate the effectiveness of CR on comprehension. In order to achieve this aim, the researcher chose a Noun Phrase (NP) including a

postpositive modification. The first reason for this is that CR will most likely enhance the comprehension of the sentence due to the fact that it is difficult for Japanese learners of English. This is because English is typologically different from Japanese. In Japanese, a modifier always appears before a head noun. Therefore, when learners read a sentence containing the NP with the postpositive modification, they get confused especially with where the phrase ends. For these learners, the researcher thought that chunking could help them find the boundary of the NP. Secondly, an NP with postpositive modification can exhibit a chunk by CR effectively. For instance, an NP with a present participle contains a postpositive modification (e.g. "A bus / coming from Tokyo / arrived on time.?). It should be noted that the first slash chunks "a bus (NP)" and "coming from Tokyo(Adjectival Phrase)." The second slash shows the whole NP as a chunk. As a result, it is likely that learners will feel more ease at understanding the sentence thanks to CR. By contrast, other example like "to-infinitive used as an adverb" is different (e.g. I went to Shinjuku / to meet my friend.). It is less likely to show the most clear connection between "to meet my friend (Adverbial Phrase)" and went (a verb). To illustrate this distinction further, examples are given below.

NP including a postpositive modification

1. The boy / with glasses / fell down to a river. (NP with a preposition)
2. I want something / to eat. (NP with to-infinitive: usage as an adjective)
3. The person / I met / was very kind to him. (NP with a relative clause)
4. A bus / coming from Tokyo / arrived on time. (NP with a present participle)
5. The picture / painted by Picasso / was stolen. (NP with a past participle)

Other linguistic features

6. To do a lot of homework / is hard for me. (To-infinitive: usage as an NP)
7. I went to Shinjuku / to meet my friend. (To-infinitive: usage as an Adverbial

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6. To do a lot of homework / is hard for me. (To-infinitive: usage as an NP)
7. I went to Shinjuku / to meet my friend. (To-infinitive: usage as an Adverbial

Phrase)

8. I met them / in Kamakura. (Prepositional Phrase)
9. My friend lives in Setagaya, / and he likes fishing. (Conjunction)
10. I understood / that it was important to speak English. (Complement Clause)

As for instances of postpositive modification, five usages are shown: NP with a preposition, one with a to-infinitive, one with a relative clause, one with a present participle, and one with a past participle. Other linguistic features, which do not contain postpositive modification, are as follows: to-infinitive (usages as a noun or an adverb), prepositional phrase which functions except as a noun modifier, conjunction and complement clause.

From these types of chunking, the researcher has to narrow down the usages employed due to the limitation of item numbers which makes one study feasible. The present study focuses on a NP with a relative clause. This is because relative clauses are thought to be the most difficult among the five, and are learned later than the other grammatical items in junior high school.

One more issue needs to be solved. There were basically two ways of putting slashes in the sentence containing a NP with a relative clause. Compare the two examples below.

- (a). The person I met yesterday / was very kind to him.
- (b). The person / I met yesterday / was very kind to him.

In sentence (a), only one slash is placed to show the boundary of the NP, whereas sentence (b) possesses two slashes: one is the same as in the sentence (a) indicating a NP boundary, and the other expresses the internal structure of a NP (head noun and modifier). The present study focuses on the former way of chunking, which expresses only the boundary of a NP. It is because if we employ

the way of the sentence (b), learners who are unfamiliar to the rule of slashes might get confused which of the two slashes shows the boundary of a NP.

3. Research Design

3.1. Purpose

The purpose of the present research is to identify the learner's level of English proficiency where they are ready to utilize the chunking of text.

3.2. Research Questions

1. Does chunking enhance comprehension?
2. Does the effectiveness of chunking differ according to their amount of knowledge about relativization?
3. Does the effectiveness of chunking vary according to type of relative clause?

3.3. Participants

A total of 580 junior high and high school students enrolled in this study (See Table 1). They were comprised of one private junior high school and five other high schools. The year that they were in varies from third year in junior high school to second year in high school in order to collect the data of students who had different English proficiency levels.

The prospect participants were only high school students: however, students from School A, which was a *private* junior high school, also enrolled in the study. In Japan, public junior high school students learn relative pronouns in the third year for the first time. In addition, relative pronouns don't have to be acquired to the level where learners are able to produce them (Ministry of Education, Culture, Sports, Science, and Technology, 2003). From this fact, most of the junior high school students are not thought to have acquired relative clauses sufficiently. Thus, participants were narrowed down to high school students, who had learned relative pronouns at least one year before. The reason why the students from School A were allowed to join this research was they learned relative pronouns in the previous year due to their original curriculum. Therefore, there was no

problem even if we had disparity in the participants' school years as long as one year at minimum had passed after they once learned relative clause. This is because the focus of the present research was to assess their acquisition of relative clauses.

Table 1: *Participants*

School A	School B	School C	School D	School E	School F	Sum
JHS 3	HS 2	HS 1	HS1+HS2	HS 1	HS 1	
80	32	127	244 (112+132)	34	63	580

3.4. Research Instruments

3.4.1. Test 1*

Test 1 measured how well the participants know about relative clause which was comprised of two parts: Test 1-1 was designed to assess the learner's ability to comprehend the internal structure of an NP with a relative clause, and Test 1-2 was designed to assess the ability to recognize the boundary of an NP containing a relative clause (APPENDIX A, B).

Three types of relativization were chosen for the present research: Subject focused (SU), Direct object focused (DO) and Contact Clause (CC).

SU: The person that attacked Mary was arrested.

DO: The singer that everyone loves came to Aomori.

CC: The friend I called yesterday didn't show up.

Criteria for the sentences in the tests are (1) NP containing a relative clause was located in the position of subject (not in the position of object)**; (2) The relative pronoun "that" was only used in the test, excluding who, whom and which, in order to avoid confusing the participants with these different kinds of relative pronouns; (3) The words used in the test were controlled in difficulty, and some of them are given a glossary so that all the participants were assured that they know all of the vocabulary.

3.4.1.1. Test1-1

Test1-1 measured the learners' ability to understand the internal structure of an NP containing a relative clause, which consisted of 6 items in total. Each sentence contained one of the three types of a relative pronoun. Each type of relative clause was used for two items. In this test, they were required to arrange the words in correct order according to the Japanese translation and form an NP with a relative clause.

3.4.1.2. Test1-2

Test1-2 assessed whether the learners could recognize an NP from which a relative pronoun was embedded in a sentence or not. The test was comprised of 12 items in total. In the first half of the sentences, a matrix verb was a copula (i.e. *be*), whereas the last half of them contained a verb in the matrix clause. Each of these six items included one of the three types of a relative pronoun. Thus, every four items out of 12 contains the same type of a relative clause. For the first part, learners placed the omitted copula back in the original spot. As for the latter part, they were required to put a slash where they thought there was a sense group.

3.4.2. Test 2

Test 2 was also comprised of two parts: Test 2-1 and Test 2-2 (APPENDIX 3, 4). Both parts employed an English-Japanese translation task, which required the learners to translate an English sentence into Japanese. The difference lay in the point that the sentences in Test 2-2 were chunked with slashes, whereas the sentences in Test 2-1 were not. The number of words was precisely the same in each test; however, some content words in the sentences were changed to make sure that the meaning of a sentence slightly differed to reduce the practice effect, and the lexical changes were small in order not to affect the comprehension of the sentences for the learners.

Each test consisted of four sentences. SU relative pronouns were included in two sentences, while DO and CC relative pronouns were incorporated in one sentence each. A predicate both in an NP and a matrix clause were not copulas but verbs. Moreover, the verbs in an NP were carefully chosen in order to assess the

learners' ability to comprehend relativizations *syntactically*. The researcher thought a sentence such as "The books that Nancy read" to be inappropriate for this study. The head noun of this sentence is "books." It can hardly be interpreted as the agent of the action (to read) because of a *semantic* restriction (Nancy can only read the books, but the books can never read Nancy). By contrast, another sentence "the man that Nancy helped" allows two semantic interpretations when learners rely on "lexical semantics" (Vanpatten, 2007). Two Interpretations were "Nancy helped the man." and "The man helped Nancy." The researcher selected the latter sentence so that learners were to be assessed on their understanding of relativizations which is independent from the guess based on animacy.

3.5. Procedure

The researcher asked the teachers in each school to conduct the tests. They all strictly followed the same procedure so that there was no disparity. The procedure was compound of four stages, and each stage was timed for five minutes. First, the English-Japanese translation Test 2-1, which contains no slashes, was done. For the next five minutes, learners performed Test 2-2. At the third stage, participants sat for the Test 1-1 to check their comprehension of the internal structure of an NP. Finally, they were required to carry out the Test 1-2 in order to reveal their understanding of boundary recognition. After they finished each stage, they were not allowed to go back to the questions in the previous stages. The order of the tests above was determined because Test 2 which contained only English did not give any prior knowledge about relativization to learners.

3.6. Data Analysis

3.6.1. Scoring

3.6.1.1. Scoring for Test 1

Items both in Test 1-1 and Test 1-2 were scored dichotomously as correct or incorrect. The maximum score was six for Test 1-1 and 12 for Test 1-2.

3.6.1.2. Scoring for Test 2: Translation

In Test 2, a score was given to each question dichotomously as zero or one.

The researcher conducted a scoring primarily based on the idea that answers were deemed correct as long as they expressed that the learners could understand a string of an NP containing a relative pronoun and an event described in the NP correctly. The rater ignored lexical and grammatical errors (tense, aspect, etc.).

The problem concerned with the scoring would occur when the learners translated the English sentences whose type of relative pronoun is SU into the Japanese sentences. These translated sentences would sometimes become hard to tell whether they really comprehended the original sentences or not. For instance, the correct translation of the sentence ("The cat *that bit the dog* hit the lion.") has to exhibit the structure that a head noun (the cat) is modified by a relative clause (*that bit the dog*). When the translation provided the translation like "inu o kanda neko," it was scored correct. It is because the relative clause (*inu o kanda : that bit the dog*) preceded the head noun (*neko* : the cat). By contrast, if the translation turned out to be like the sentence "*neko ga inu o kande*" (neko-cat (agent); ga (subject-marking particle); inu-dog (patient); o (object marking particle); kande-to bite (action)), we could not tell whether the learners really understood the relativization or not. Because the head noun preceded the relative clause in the translation, it might suggest that learners were not able to understand that relative clause post-modified the head noun though the event described in the NP was same as that of correct translation.

In order to avoid the chances of giving zero points for this type of translation in which learners actually understood the structure and meaning, the researcher devised sentences which could discern those who actually could understand the structure and meaning of the NP and those who could not. See the sentences below.

1. The girl that kissed the boy likes math.
2. The boy that runs very fast went to Tokyo.

The first sentence employed the state verb "like" in the matrix clause because a translation such as "*Shojo ga shonen ni kisu o shite suugaku ga suki da*" would not be produced by learners. This is because the translation itself is

ungrammatical in Japanese.

In the second sentence, the verb "run" was employed. If the sentence were translated as *Shonen ga totemo hayaku hashitte Tokyo ni itta* (The boy ran to Tokyo.), this would clearly demonstrate that they did not understand the meaning of the sentence precisely. The event expressed in this wrong translation contrasted with the correct interpretation that the boy who can run very fast went to Tokyo. In the correct interpretation, we are not sure whether the boy went to Tokyo by car, by train or on foot. Those who really understand this sentence will not produce the wrong translation.

3.6.2. Data Elimination

The tests were performed on 580 learners in total. However, eight learners didn't fill in some parts of the questions or all parts of the tests. There is a possibility that they didn't take this study seriously. Thus, they were eliminated from the data analysis. In addition to this, the learners who scored full marks on the Test 2-1 were also eliminated from the analysis because they already can understand the sentences without chunking. In total, 118 learners were eliminated from the analysis. As a result, the data analyzed in the study was from 454 learners.

3.6.3. Data Analysis for Research Question 1

The data were analyzed in terms of differences between Test 2-1 and Test 2-2 by taking a sample-paired t-test.

3.6.4. Data Analysis for Research Question 2

First, the data were analyzed to reveal the relationship between Test 1 and Test 2 by calculating the Pearson correlation coefficient. Secondly, the proportion of those whose score for Test 2-2 gained one point or more than Test 2-1 was calculated according to their level of understanding of relativization, which was represented by the total score of Test 1-1 and Test 1-2. In addition to this, a sample-paired t-test was conducted to investigate the difference of score gains (Test 2-2 - Test 2-1) whose scores of Test 1 were 90 percent or higher and 10

percent or lower than the maximum score.

3.6.5. Data Analysis for Research Question 3

A one-way ANOVA was conducted to investigate the differences between the score gains of each item from Test 2-1 to Test 2-2. It should be noted that those whose score decreased between the tests were excluded from the analysis, only concerning for the analysis of a chi-square test because of the statistical operation.

4. Results

4.1. Concerning Research Question 1

Descriptive statistics and cross tabulation for Test 2-1 (Translation) and Test 2-2 (Translation with chunking) are presented in Table 2 and Table 3.

In order to examine the difference between the two tests, t-test for paired samples were performed on the T scores of Test 2-1 and Test 2-2. A significant difference was found between the scores of two tests ($t(453) = -8.115, p < .05$).

Table 2: Means, Standard Deviations and Correlation of Test 2-1 and Test 2-2

	Mean	SD	Corr
Test 2-1	0.430	0.936	0.767
Test 2-2	0.753	1.319	

N=454

**p<.01

As shown in Table 3, most of those who obtained zero points on Test 2-1 also obtained zero on Test 2-2. By contrast, 17 learners increased their scores out of 35 learners who obtained one in Test 2-1; 12 learners outperformed in Test 2-2 out of 17 learners whose original score was 2 in Test 2-1; 12 out of 42 learners who scored three in Test 2-1, improved their scores. This implied that those who had at least some ability to understand relativization were likely to benefit from chunking or improve their scores. In the next section, we will investigate whether the knowledge about relativization affects the effectiveness of chunking.

Table 3: Cross Tabulation for Test 2-1 and Test 2-2

	Test 2-2				Sum
	0	1	2	3	
0	317	20	9	4	360
1	3	15	7	5	35
2	0	1	4	5	17
3	0	0	2	28	42
Sum	320	36	22	42	454

4.2. Concerning Research Question 2

Means (with standard deviations in parenthesis) for Test 1, Test 1-1 and Test 1-2 were 7.63 (4.93), 1.81 (1.96), 5.819 (3.55). The Pearson Correlation coefficients were calculated between Test 1-1, Test 1-2, Test 1, Test2-1 and Test 2-2 (Table 4).

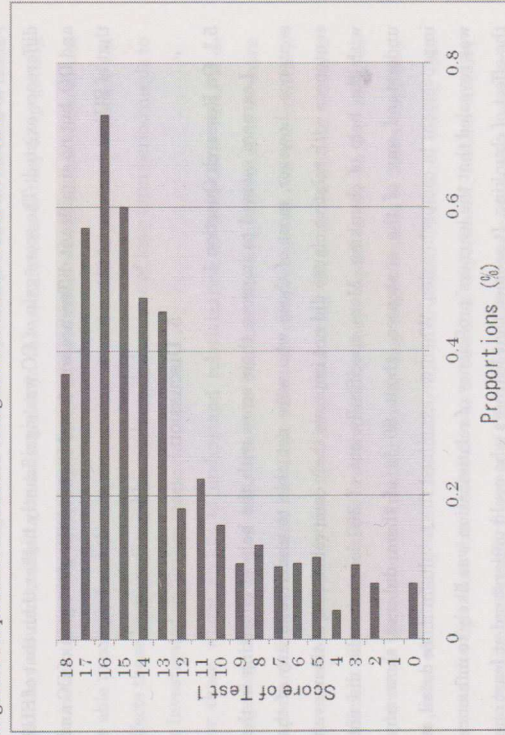
Table 4: Correlations between Test 1-1, Test 1-2, Test 1, Test2-1 and Test 2-2

	T1-1	T1-2	T1	T2-1	T2-2
T1-1	1.00				
T1-2	0.57	1.00			
T1	0.81	0.94	1.00		
T2-1	0.54	0.58	0.63	1.00	
T2-2	0.58	0.64	0.69	0.77	1.00

In terms of Test 1, which measures the knowledge of relativization, moderate correlation was found between Test 1-1 and Test 1-2 ($r=0.57$). These two tests were considered to be measuring similar but not extremely different aspects of knowledge about relativization, and the total of the two tests' scores is strongly correlated with Test 1-1 and Test 1-2 respectively ($r=0.82, 0.94$). Therefore, the researcher determined to employ the performance in Test 1 as the measurement for knowledge about relativization for the following analysis rather than using two different aspects of the knowledge about relativization measured by Test 1-1 and Test 1-2.

The proportions of those who gained scores (from Test 2-1 to Test 2-2) to those who didn't show any gains are shown in Figure 1. Each ratio was calculated according to Test 1, ranging from 0 to 18. A clear-cut border was indeed manifested between bands of 13 and 12. The learners who possessed a score of 13 or more exhibited the score gains compared to the rest of the learners. More specifically, when learners obtained a score of 13 or more scores on Test 1, about 52 % of them improved their scores, while only around 10 % of the learners improved their scores when they procured 12 or less in Test 1. The highest probability that chunking might affect was achieved for those who scored 16 in Test 1. It was more than 70 %.

Figure 1: Proportions of learners who gained score from Test 2-1 to Test 2-2



Furthermore, in order to investigate whether the difference between Test 2-1 and Test 2-2 in terms of knowledge about relativization, the learners were divided into two groups whose score of Test 1 were 17 or higher (Higher Group: HG) and one or lower (Lower Group: LG). HG consisted of 40 learners, and LG was comprised of 27 learners. Means (with standard deviations in parentheses) of HG

lies between CC and SU2 and DO is that CC did not have a relative pronoun overtly. This might have affected the difficulty of comprehension. The relative pronoun "that" might have confused some learners, and they may not have been able to understand when "that" was included in the sentence. However, due to the fact that the effect on SU was same as that of CC, it remained inconclusive in what kind of factors influenced this result from the present study.

6. Limitations

6.1. Limitations of the Method

First of all, practice effect among the four tests might have affected the results of this research. The order of the tests were decided based on the idea that there would be no practice effect; however, presenting Test 2-2, which contained chunking, prior to Test 1-2 could not deny the risk of learning the chunking at Test 2-2. Despite the fact that there was a possibility of practice effect, it is not likely that learners who have less than 70 % of understanding (363 out of 454 learners) could have learned the chunking only from the limited exposure in Test 2-2. This is because 90 % of them could not make use of chunking by themselves or understand the role of chunking. Those who did not *understand* the rule of chunking could not have been able to *learn* the rule by themselves. Therefore, we can be sure to a certain extent that there was a very low possibility of practice effect for the most learners, although it would have been better if Test 1-2 had been conducted prior to Test 2-2.

Secondly, due to feasibility of the test, there were only four items employed in Test 2-1 and Test 2-2 respectively. Although it was hard to employ more items in the tests because of the burden on learners and the limitation of time, results would be more reliable if we employed more items.

6.2 Limitations of Generalization

Compared to the previous studies on CR, the present research is unique in the respect that it focused on "sentence-level" comprehension. The reason why this study focused on sentence-level comprehension is that when we used a

passage to investigate the effect on comprehension, it entails many other factors including prior knowledge about a topic of a passage, context, cohesion, inference, etc. Though we were able to attain the purpose of this present research, which proved the enhancement of CR in sentential level, interpretation should be treated carefully when applying this study's findings in the case of discourse-level comprehension of texts.

The present research only focused on relativization as a post-positive modification; however, we are not certain whether or not the findings of this research can be applied to other features of postpositive modification. Also, we cannot decide in the case of other grammatical elements which contain no postpositive modification.

7. Pedagogical Implication

The present research unveiled the fact that 90 % of the learners whose knowledge about relativization doesn't reach a high level (approximately 70 % or more) cannot improve their reading comprehension with the help of chunking. With the knowledge reaching approximately 70%, about half of the learners can benefit from CR. From this finding, several implications for EFL classroom are discussed. Firstly, the threshold found in the present research can be a useful index to whom or when to perform CR in a classroom. Secondly, teachers should keep in mind the fact that CR can teach very little. When a teacher conducts CR in classroom, there is a very small possibility that they will be able to understand a sentence especially to those who are not well-developed to understand that chunking. Thirdly, instructing the students where to put a slash as instruction can be just a waste of time because they cannot comprehend the sentences. Therefore, when the learners are not ready to be able to utilize the chunking, it would be better for teachers to teach the structure or grammatical rule of sentences explicitly, or they can combine the method of CR while giving explicit grammatical instruction.

Notes

- * The format of Test 1 was determined with reference to Kanatani(1994) and Kanatani and ELPA (2006).
** Since the test includes a task that requires the recognition of boundary for a NP containing a relative clause, the NP had to be placed in the subject position. In addition to this, it is said that a relative clause which is embedded in the center of a sentence(i.e. an NP with a relative clause comes in the subject position) is more difficult than that which is embedded in the right of a sentence(i.e. an NP with a relative clause comes in the object position)(Izumi 2003)

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APPENDIX A: Test 1-1

制限時間：5分

次の下線部の日本語を英語で表すために、() 内の語を正しく並び替えなさい。下の回答欄に、記号で答えなさい。

(Please order the words to make a sentence that expresses the meaning of the Japanese sentence underlined. Write your answers in the box below.)

- このケーキを作った人はプロの料理人ですか。
(ア. that イ. this cake ウ. made エ. the person)
- テーブルの下で寝ている猫を見るのが趣味だ。
(ア. a cat イ. under the table ウ. that エ. is オ. sleeping)
- 先週買ったカメラがすぐに壊れてしまった。
(ア. last week イ. I ウ. the camera エ. bought オ. that)
- ジョンが愛した女性はこの世にはいない。
(ア. the woman イ. John ウ. loved エ. that)
- サトシが撮った写真は、とても上手だった。
(ア. Satoshi イ. took ウ. the pictures)
- 昨日私が出会った友達は、アメリカ人の彼氏がいる。
(ア. a friend イ. yesterday ウ. met エ. I)

1				
2				
3				
4				
5				
6				

APPENDIX B: Test 1-2

制限時間：5分

A. 次の文に () 内の語を入れるとしたら、どこに入りますか。入る箇所を **A** を入れなさい。(Where in the sentence should the word in parentheses be inserted? Indicate where to put it with **A**.)

例: I read **A** yesterday. (a book)

- The woman that made this doll my mother. (is)
- The man that went to school with my sister our new teacher. (is)
- The cat that I keep Tama. (is)
- The lady that I helped on the street Kenji's grandmother. (was)
- The friend I met from Canada. (is)
- The boy you like very much Kenta. (is)
- 次の英文を、意味のまとまりで一か所区切るとしたらどこが適切ですか。適切な箇所に **A** を入れなさい。(If you were to divide the sentence with one meaningful chunk, where would be the appropriate place to put it? Indicate it with **A**.)
- The man that swims very fast enjoyed the party.
- The friend that read books likes Japanese.
- The man that I liked drank wine.
- The girl that you invited yesterday made a cake.
- The boy Mary likes runs very fast.
- The girl he met on the street loved music.

Why can they not read English passages aloud?

-Narrative research of Junior High School Slow Learners-

Ryo Hiruta

1. Introduction

—“Don't brag about your lightning pace, for Slow and Steady won the race!”
The Tortoise and The Hare “Aesop's Fable”

As fast and slow runners exist, the speed of learning languages differs as well. These differences would be observed easily in any classroom around the world, as long as we teach human beings. Without exceptions, there is a certain number of slow learners in the EFL classrooms in Japan. Therefore we teachers are required to recognize the gap of fast learners and slow learners when we face students. However, there is not a large amount of studies that shed light on slow learners. Slow learners tend to be labeled as learners who did not study as hard as enough, which is sometimes true, and sometimes not. To help the “slow and steady” but unsuccessful learners, it is required to know why they suffer in language learning. From this viewpoint, the present study made an effort to collect as much information as possible about the slow learners, from several dimensions. This study was conducted wishing for the “slow and steady” tortoises to cut their goal tapes of language learning.

2. Background

2.1. Predicting successful learners and those who are not

Through a long period, the slow learner, underachiever issue has been discussed as a topic of language aptitude. This issue was first researched to determine who could learn foreign languages (FL) better than others. The most famous study in this field was conducted by Carroll (1962), who proposed four components of foreign language aptitude: Phonetic coding, Grammatical Sensitivity, Foreign Language Materials, and Rote Memory for Inductive Language Learning Ability. Skehan (1995) updated this by presenting three components as the factors: auditory ability, linguistic ability, and memory.

APPENDIX C: Test 2-1

制限時間：5分

以下の英語の文を日本語に訳しなさい。(Please translate the English sentences below into Japanese.)

1. The girl that kissed the boy likes math. ※math : 数学
2. The boy that runs very fast went to Tokyo. ※fast:速く
3. The boy that you saw loves dogs. ※saw : 会った
4. The person I called came to the party. ※called:電話した

APPENDIX D: Test 2-2

制限時間：5分

以下の英語の文を日本語に訳しなさい。(Please translate the English sentences below into Japanese.)

1. The boy that kissed the girl / likes science. ※science : 科学
2. The girl that runs very fast / went to Osaka. ※fast : 速く
3. The girl that you saw / loves cats. ※saw : 会った
4. The friend I called / went to the party. ※called:電話した