Use of Re-reading Strategy in EFL Reading

Masumi Tahira

Abstract

Re-reading or regressively reading a text is a reading strategy that readers frequently employ for improving reading comprehension while reading a text in either L1 or L2 settings. This study attempted to illustrate the relationship among three factors, readers’ proficiency levels, text difficulty, and re-reading strategy, by investigating participants’ re-reading behavior and perceptions of regressive reading in an EFL context. In this study, four adult English learners who are native Japanese speakers read two passages following a think-aloud protocol and were interviewed immediately after they finished reading. Participants were divided into two levels of proficiency (high and low), and each participant read an easy passage and a difficult passage for their level. The results indicated that re-reading behavior increased when readers read a difficult text than an easy text, and that, in reading a difficult passage, good readers demonstrated a higher awareness of the use of the re-reading strategy than poor readers did.

Introduction

Reading strategies have received increasing attention over the last few decades in L2 reading research. Reading strategies can be defined as “plans for solving problems encountered in constructing meaning” (Duffy, 1993, p. 232). Strategic reading is a crucial factor for effective reading performance in both L1 and L2 (Anderson, 2009; Baker, 2002; Macaro & Erlr, 2008). Grabe (2009) summarized eight effective strategies for reading comprehension (e.g., summarizing, activating prior knowledge, using text structure awareness). Bottom-up strategies and top-down strategies are also one of the most widely accepted classifications. They range from local level processing (i.e., bottom-up strategic reading), such as decoding a word or phrase, to more global and comprehensible level processing (i.e., top-down strategic reading) such as activating background knowledge (Janzen, 2001; Brown, 2007; Griva, Alevriadou, & Geladari, 2009). However, readers do not always apply such reading strategies in the same manner.
Instead, studies conducted on reading strategies indicate that all readers employ multiple strategies in combination (Grabe, 2009; Grabe & Stoller, 2002).

**Literature Review**

Re-reading or regression of texts is defined as a type of reading strategy that readers employ to achieve higher comprehension of a text (Alessi, Anderson, & Goetz, 1979). The significance of the re-reading strategy has been reported from empirical studies. According to an eye move tracking experiment, Rayner (2009) reported that re-reading occupied approximately 10% - 15% of reading time among skilled readers. According to GÜnen’s (2014) survey, which was conducted among 65 native Turkish EFL university students, re-reading (or going back and forth in text in the original term) was ranked as the fourth most preferred strategy out of 30 reading strategies. Furthermore, Schotter, Tran, and Rayner (2014) examined the effectiveness of re-reading on the accuracy of comprehension among 40 university students of native English speakers, comparing differences in reading comprehension when students were allowed to read a text again and when they did not have re-reading opportunities. The researchers concluded that, when readers had opportunities to read back a text, they significantly increased comprehension. These research results have shown that re-reading is an essential part of the reading process and a lack of this ability may lead to negative impacts on reading performance.

At the same time, the proficiency level of readers can also be a powerful factor in differences in strategy use and reading performance. Previous studies have found that good readers and poor readers are noticeably different in their use of reading strategies (Janzen, 2002; Lau & Chan, 2003). Phakiti (2003) examined the use of reading strategies in an EFL university setting in Thailand, and compared reading comprehension. The results revealed that successful readers tended to be more aware of making use of strategies when they have difficulties in their comprehension. He suggested differences in the use of strategies could explain differences in reading performance. In Greece, Griva, Alevriadou, and Geladari (2009) conducted a think-aloud (i.e., report in which participants verbalize their thought processes while reading) and interviews with 33 young bilingual EFL readers, and concluded that poor readers of all grades used fewer reading strategies compared to good readers, and poor readers more often employed word-level, bottom-up strategies. As these studies suggest, it has been theoretically and
empirically accepted that good readers and poor readers are different in their use of strategies, and poor readers tend to utilize strategies less effectively in reading comprehension (Garner, 1987; Grabe, 2009).

Readers’ proficiency levels also affect re-reading behavior. Zabrucky and Commander (1993) investigated 44 undergraduate students of native English speakers, dividing them into two groups of 20 readers with higher comprehension test scores and 24 poor readers with lower scores. The researchers traced time of re-reading on a computer screen and compared the degree of increase in re-reading time when readers read incoherent information at the end of a passage. For example, readers read a sentence (e.g., "With patience, the kangaroo rat can be tamed...") in the middle of a passage, but at the end of the passage, an incoherent sentence was given (e.g., "It is impossible to tame these little creatures..."). As a result, their study showed two major findings. First, poor readers spent more time reading previous sentences than good readers did. Second, only good readers increased their re-reading time when they read incoherent information at the end of a passage whereas poor readers’ re-reading time remained the same. In sum, Zabrucky and Commander’s conclusion showed that good readers and poor readers differed in the amount and the quality of regression of texts in their reading process.

One thing to be noted here is that poor readers’ use of re-reading strategy did not change in accordance with the difficulty of a text. In general, it has been assumed that the difficulty of text is a strong factor affecting re-reading behavior. Schotter et al. (2014) indicate that readers tend to read back more frequently when they fail to comprehend the meaning of a text. Grabe (2009) suggests that even an advanced level reader is likely to behave like a lower level reader when processing difficult information. If these claims are accurate, poor readers’ re-reading time should increase in the same way as good readers do when they process a text difficult to understand. However, Zabrucky and Commander found no change.

To summarize, there are two major issues remaining to be clarified concerning the use of re-reading strategy. One issue is the difference in the use of re-reading strategy between readers of various proficiency levels. The other is the influence of text difficulty on re-reading behavior. Therefore, the research questions of the present study to be addressed are as follows:

1. Does re-reading behavior increase when EFL readers read a difficult text at a
higher level than their reading ability?

2. Is there any difference in the use of re-reading strategies between low-proficiency EFL readers and high-proficiency EFL readers? If so, how differently will re-reading strategy be applied in their reading?

To fully understand the nature of re-reading strategy and to have deeper insights into re-reading behavior, this study followed both a quantitative approach and a qualitative approach to data collection and analysis.

Methodology

Participants and their Proficiency Levels

Four adult EFL learners who are native Japanese speakers participated in the present study. Their English levels were estimated by consideration of the results of a vocabulary-level test taken in this study and grades of English proficiency tests taken in the past.

The Vocabulary Levels Test (Nation, 2001; Schmitt, Schmitt & Clapham, 2001) is a diagnostic test that looks at the level of a learner’s vocabulary at the 2nd 1000, the 3rd 1000, the 5th 1000, the Academic Word List, and the 10th 1000 of most frequent words. It is widely accepted as a test to determine whether learners know enough high frequency words, academic words, or low frequency words (Nation & Beglar, 2007). In this study, prior to the reading passages, each participant took the test at the levels at the 2nd 1000, the 3rd 1000, the 5th 1000, the 10th 1000 lists. The test of academic word knowledge was excluded because of time restriction. Hiro and Sachi had the 10,000-word and 5,000-word level vocabulary, respectively. Yohei had the 2,000-word level but he did not reach the 3,000-word level. Kana did not have the 2,000-word level.

In addition, Sachi and Hiro had already passed the highest or the second-highest grade of the STEP English proficiency test, respectively. On the other hand, Yohei and Kana already had three and six months of experience, respectively, in learning English at the time of participation in the study. Thus, two participants (Hiro and Sachi) were considered high-proficiency readers while the other two (Yohei and Kana) were considered lower-proficiency readers in this study. Table 1 below shows the basic data of the participants, including their vocabulary level.
Table 1.

*Participants’ Information*

<table>
<thead>
<tr>
<th>Name</th>
<th>Yohei</th>
<th>Hiro</th>
<th>Kana</th>
<th>Sachi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>Male</td>
<td>Female</td>
<td>Female</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>40s</th>
<th>50s</th>
<th>40s</th>
<th>40s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vocab level</td>
<td>2,000</td>
<td>10,000</td>
<td>Less than 2,000</td>
<td>5,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>English qualification</th>
<th>-</th>
<th>STEP Pre-1</th>
<th>-</th>
<th>STEP-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>English learning experience</td>
<td>For TOEIC test</td>
<td>For 3-month</td>
<td>20 years</td>
<td>Radio program</td>
</tr>
<tr>
<td>Prof. Level</td>
<td>Low</td>
<td>High</td>
<td>Low</td>
<td>High</td>
</tr>
</tbody>
</table>

*STEP = EIKEN English test by the Society for Testing English Proficiency*

**Selection and Use of Reading Passages**

Prior to the choice of the three final passages, 70 passages were initially selected from three online speed-reading course materials for EFL learners (Millett, 2005; Quinn, Nation & Millett, 2007), the book series of *Reading for Speed and Fluency* (Nation & Malarcher, 2007), and four institutional tests (TOEFL, IELTS, STEP, and Cambridge CPE). To select three different level materials for the study, the length, vocabulary level, and readability scale of each of 70 passage were carefully checked. First, passages that contained 300 to 400 words were kept so that a large gap in the length of passages could not cause a bias about difficulty in reading process. Second, lexical frequency profiles and Flesch-Kincaid readability estimates of passages were looked at to select different levels of passages. Lexical frequency profiles were analyzed because a higher ratio of frequent words (e.g., words at the 2,000- and 3,000-word level) in a passage reduces reading difficulty. Flesch-Kincaid readability estimates were used, as they are a widely used formula for assessing the difficulty of a reading passage (Crossley, Greenfield, & McNamara, 2008). As a result, three passages were selected for this study. *Penguins* (Nation & Malarcher, 2007) was the easiest passage. *Whale Falls* (STEP, 2010) was the middle passage, and *Body in Space* (STEP, 2010) was the highest-level
passage. Table 2 shows the difference in the lexical frequency profiles of the three finally selected passages. In this study, the lower-level participants (Yohei and Kana) read *Penguins* as an easier text for them to read and *Whale Falls* as a more difficult text. The advanced-level participants (Hiro and Sachi) read *Whale Falls* as an easier text and *Body in Space* as a more difficult text. All four participants read the passage *Whale Falls* in common.

Table 2.

**Lexical profiles of passages**

<table>
<thead>
<tr>
<th>Material Level</th>
<th>Source</th>
<th>Passage Title</th>
<th>Flesch-Kincaid readability estimates</th>
<th>Total number of words</th>
<th>Up to 2000 level</th>
<th>Up to 3000 level</th>
<th>Up to 5000 level</th>
<th>Up to 8000 level</th>
<th>From 10000 level</th>
<th>Ratio of NILW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>SR book 1</td>
<td>Penguins</td>
<td>1.5</td>
<td>301</td>
<td>90%</td>
<td>93%</td>
<td>99%</td>
<td>99%</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Middle</td>
<td>STEP G-2</td>
<td>Whale Falls</td>
<td>8.1</td>
<td>360</td>
<td>88%</td>
<td>89%</td>
<td>99%</td>
<td>97.2%</td>
<td>0.6%</td>
<td>0%</td>
</tr>
<tr>
<td>High</td>
<td>STEP G-1</td>
<td>The Body in Space</td>
<td>12.5</td>
<td>370</td>
<td>83.7%</td>
<td>88.1%</td>
<td>93.0%</td>
<td>94.9%</td>
<td>95.1%</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

NILW = *Not in the List Words*, SR = *Reading for Speed and Fluency* (Nation & Malarcher, 2007)

STEP = *EIKEN English test by the Society for Testing English Proficiency*, G = Grade

**Data Collection Process**

The think-aloud and interview methods were used in the present study to explore the details of the use of the re-reading strategy. Each part of the data collection process consisted of three parts, taking one hour on average. First, as an orientation, participants received an explanation of the purpose and the outline of the study, filled in the consent form, took a vocabulary level test, and practiced how to do thinking aloud or verbalizing their thoughts while they read by reading a 100-word short text. Second, the participants read the first passage that was considered easier for them to read, and were interviewed immediately after reading. Finally, they read the second passage that was considered more difficult for them and were interviewed again immediately after reading. The researcher met with each participant individually. All of the participants’ readings and interviews were recorded by a video recorder.
Think-aloud Protocol

In the think-aloud protocol, participants were asked to verbalize all information they thought or noticed and all procedures they used to comprehend the text. Participants did a think-aloud twice in total because there were two passages (an easier text and a more difficult text). Participants were told in advance that they could spend up to 10 minutes reading a passage. However, information on the difficulty level of target passages was withheld so that the participants were not biased. The participants were allowed to use either Japanese or English to report their thoughts in this study. In addition, during the think-aloud, the researcher videotaped the process and took notes in shorthand about what the participants said for the later interview session.

Interviews

Each time the participants finished a think-aloud session, a semi-structured post-task interview was held to gather retrospective comments on the task. Interview 1 was completed immediately after participant finished reading an easy passage (the first passage). Since it was expected that the re-reading behavior the participants performed would be collected through their think-aloud processes, the interview mainly attempted to assess metacognitive perceptions on task difficulty and metacognitive strategy use instead of focusing only on re-reading strategy. Based on the sample questions from Lau’s (2006) study, a set of open-ended interview questions were designed as follows:

(1) How much do you think you understand this passage?
(2) Please tell me the story of the passage.
(3), (4) Which parts (sentence, or word) did you feel were the easiest/most difficult to understand?
(5) Why did you feel that part was the easiest/most difficult?
(6), (7) What did you do when you encountered a difficult part or when you did not understand the meaning of the text during your reading?

Interview 2 was held immediately after the participants finished reading a difficult passage (the second passage). In the second interview, the researcher created two new questions to compare differences in the two passages. The question numbers 8 and 9 were given in addition to the same seven questions of the interview 1 as follows:

(8) Comparing the two passages you read, in which passage was it more difficult
to understand the meaning of the text during your reading? Why do you think so?

(9) When reading the more difficult passage, what were your approaches to reading?

During the interview, the participants were allowed to look back at the passage.

Findings

The entire process of the think-aloud and interview sessions were videotaped and transcribed for analysis. The transcription was written in either Japanese or English to keep the original meanings and nuances of the participants' utterances. In addition, the researcher added information on participants' reactions recognized in videotaped records, such as noticeably long pauses or finger-pointing actions. In this study, lines spoken in Japanese are shown in italics and translated parts are shown in brackets.

Quantitative Description of Re-reading Behavior

First, with regard to the time each participant spent on the think-aloud, Hiro and Sachi finished thinking-aloud both passages in the allotted time (10 minutes), whereas Yohei did not finish the difficult passage and Kana finished neither passage, as shown in Table 3. The figures in Table 3 show the percentage of the number of words of the passage a participant verbally reported in the given time. For example, in reading her difficult passage (Whale Falls), Kana reported her thoughts on the text of the first 173 words (48% of the 360-word passage).

Table 3.

<table>
<thead>
<tr>
<th>Proficiency</th>
<th>Yohei</th>
<th>Kana</th>
<th>Hiro</th>
<th>Sachi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy passage</td>
<td>100%</td>
<td>86%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Difficult passage</td>
<td>84%</td>
<td>48%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Second, by analyzing the data of the think-aloud, it was found that the participants performed re-reading behavior more frequently when reading a difficult text. When
comments were made in the think-aloud, the participants repeatedly read a certain part in a passage. For example, when Yohei read the passage *Whale Falls*, he re-read a part related to the words “ocean floor” three times because he did not understand the meaning of it as follows:

Yohei: “...has fallen to the ocean floor...ocean floor? *Korenannndarou* [What does it mean]? ...fallen to the ocean floor...*Wakaranai* [I can’t understand]. *Tuginiiikou* [Anyway, I’m skipping this part now].”

In this case, Yohei re-read seven words in total in this part (two words on the first underline and five on the second underline). The occurrence of re-reading was counted as the number of words that were reread or repeated in either English or in Japanese during think-aloud process. Table 4 shows the percentage of the words the participants re-read in a passage.

Table 4.

*Percent of the number of words re-read/repeated in Japanese and English*

<table>
<thead>
<tr>
<th></th>
<th>Yohei</th>
<th>Kana</th>
<th>(average)</th>
<th>Hiro</th>
<th>Sachi</th>
<th>(average)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Proficiency</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Easy passage</strong></td>
<td>3%</td>
<td>31%</td>
<td>17%</td>
<td>13%</td>
<td>24%</td>
<td>18.5%</td>
</tr>
<tr>
<td><strong>Difficult passage</strong></td>
<td>27%</td>
<td>61%</td>
<td>44% (+27%)</td>
<td>32%</td>
<td>33%</td>
<td>27% (+8.5%)</td>
</tr>
</tbody>
</table>

The high-level participants (Hiro and Sachi) increased re-reading by 8.5% on average when they read a difficult passage compared to when they read an easy passage, while the low-level participants (Yohei and Kana) increased re-reading by 27%. Although this comparison is not statistically valid because of its small sample size (*n* = 4), participants used the re-reading strategy more in reading a passage at a higher level than their ability, compared to when reading an easier-level passage.

**Perceptions Seen in Interview Data**

In the interview part, six to eight open-ended questions were asked to retrospectively explore the participants’ perceptions during the reading. As to the easiest or most difficult parts, the answers varied. To the question about what they did when they met a difficult part or did not understand the meaning of the text, several
differing perceptions and reactions were found. Three participants responded that continuing to read forwards was a strategy used on encountering difficulty (Excerpt 1).

Excerpt 1
Sachi: [I kept reading even if I was not sure ... I expected its meaning might make sense afterward.]
Yohei: [I kept reading, not caring about exact meaning of an unknown word or not trying to find Japanese words equivalent to it.]
Hiro: [I thought the meanings of difficult sentences would come across later if I go on reading.]

The interview revealed that another method was also used when the participants had semantic problems. Yohei explained that he guessed the meaning of an unknown word from context (Excerpt 2):

Excerpt 2
Yohei: [I didn’t know the meaning of the word “bill” at first. But reading the sentence which contains the word, I finally became sure of its meaning.]

Moreover, when asked what their approaches to reading the more difficult passage were, Yohei and Kana answered that skipping difficult parts was employed, implying that they did so because they were aware of the budget of reading time (Excerpt 3).

Excerpt 3
Yohei: [I spent certain times trying to read words or phrases I didn’t understand well, but I could not allot too long a time. If it seems to take me long, I skip that part and go on to the next sentence.]
Kana: [The words whose meanings I thought I could guess, for example the verb last, took me longer time to deal with it. I repeated to read such words so that I could recall or guess their meaning. I can more easily skip words that I don’t know at all.]

Contrary to Yohei and Kana, Hiro and Sachi responded that they put importance on the re-reading approach when they read the more difficult passage.

Excerpt 4
Hiro: [I think I re-read more times during reading the previous passage than reading this passage so that I understand it well.]
Sachi: [I repeatedly read some parts in this passage trying to paraphrasing it or translating it into Japanese.]
Discussion

First, as for the first research question, all the participants re-read more words when they read a difficult passage than an easy passage. This can be seen in the number of words participants re-read in the present study. In addition, the re-reading done in the passage titled *Whale Falls* also explains the influence of text difficulty more closely. In the present study, all the participants read the passage in common. As it was seen in Table 4, low proficiency participants read back 44% of words on average when they read the passage *Whale Falls* as a difficult text while high proficiency participants read back 18.5% when they read the same text as an easy one. This comparison confirms that, when readers have more difficulties in reading, they are likely to re-read a text. In this light, it can be a support for the argument that readers are more likely to re-read a difficult text than an easy text (Schotter, Tran, & Rayner, 2014).

To the second research question, high-proficiency readers showed a higher awareness of using the re-reading strategy than low-proficiency readers did. Instead, low-proficiency readers showed higher awareness of the use of the strategy of skipping difficult words/parts. As is seen in Excerpt 1, when the semantic difficulties in a text were encountered, the basic strategy both low-level readers and high-level readers employed was to guess the meaning of unknown words or phrases from context, expecting the meaning to become clear afterwards. However, guess work often does not succeed with more difficult passages. When the participants read a difficult passage, only low-level readers mentioned skipping the difficult part in Excerpt 3. On the other hand, high-level readers emphasized the use of the re-reading strategy for better comprehension in Excerpt 4. Grabe (2009) suggests that this difference arises from which focus readers have. He claims that readers employ multiple reading strategies at one time and use particular strategies preferably in accordance with their reading focus. In the present study, compared to the high-level readers, the low-level readers seemed to be more time-focused, being short on time (Table 3). As a result, low-level readers were forced to skip more difficult parts than high-level readers. The high-level participants seemed to put more effort into achieving adequate comprehension by re-reading because they did not need to worry about time limitation as much.

Conclusion

Re-reading is a fundamental strategy during reading processing. This study
originally intended to explore the difference in re-reading practice in relation to text difficulty and readers’ proficiency level. Putting quantitative description and qualitative data together, this study yielded certain findings. First, both low- and high-level readers increased re-reading behavior when they read a passage that was at a higher level than their reading ability. Second, good readers merely used the re-reading strategy for higher comprehension when they read a difficult passage. In contrast, when the difficulty of the passage increased, poor readers tend to more often employ a strategy of skipping problematic parts than good readers do because of the time restriction. As a conclusion, these findings render the highly condition-sensitive nature of the use of re-reading. Multiple variables of reading settings such as text difficulty, greater proficiency level, or time restriction may differentiate how readers differently apply re-reading.

Finally, for future research, the methodological approaches should be improved. This study, to some extent, illustrated an aspect of the relationship between text difficulty, readers’ proficiency level, and the use of re-reading. However, to have deeper insights into the issue, more thoroughly detailed and more powerful research is required. First, a quantitative method of data collection is likely to be a strong approach to controlling the effects of reading conditions on strategy use, and gaining statistically clear consequences. Second, the text selection must be done more carefully, as the present study suggested the sensitivity of re-reading behavior to text difficulty. In this study, considering that the high-level participants finished reading their difficult passage in the given time, the passage *Whale Falls*, which the low-level participants read as a difficult passage, was too difficult for them because they could not finish it in time. For making a fair comparison, the degree of passage difficulty should be set more sensitively.

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