

Developing Reading Strategies Through Reciprocal Teaching Method

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The purpose of the present study was to investigate the effect of strategy training on the improvement of reading proficiency of Korean EFL college students. The training procedure was based on Reciprocal Teaching Method developed by Brown and Palincsar (1984). It involves four concrete activities to teach comprehension-fostering and comprehension-monitoring strategies explicitly. The four activities are summarizing, questioning, clarifying, and predicting. Strategy training was provided to 68 students enrolled in a College English for Liberal Arts course in the spring semester of 1996. Pre- and post-tests were administered prior and after the training, and students were grouped according to their reading proficiency level, based on the pre-test scores: high, intermediate, and low. The following research questions were addressed: "Does strategy training through Reciprocal Teaching Method enhance L2 reading?" If so, "Which reading proficiency group is influenced most by the training?" The results show that strategy training is effective in enhancing EFL reading, and that the effectiveness of the training varies with L2 reading proficiency; the students in the low proficiency group improved the most on the post-test. The results of the study suggest that foreign language reading pedagogy, especially for adult students in academic settings, should benefit from the explicit and direct strategy teaching.

1. Introduction

Reading courses in a foreign language are often taught by having the texts translated into the native language for comprehension, and reading in English is no exception. Due to the influence of Grammar Translation Method, many Korean English teachers as well as students still equate translating English sentences into Korean to reading in English. As a result, in order to comprehend a text, students frequently resort to word-for-word translation by consulting a bilingual dictionary and they are

forced to focus on word-by-word identification of the text and look for detailed information before an overall comprehension of the text sets in (Soh 1987). As a consequence, the text is studied as though it is a succession of separate sentences thematically related by structure and vocabulary. However, unless reading a text is the sum of sentences and paragraphs, translation may not necessarily lead to most efficient comprehension of the text (Rivers 1981).

Influenced by psycholinguistic model of reading in the reader's first language (Goodman 1970; Rumelhart 1977; Anderson 1984), recent years have seen a fast growing interest in the area of reading in a second language (Carrell 1987). The results of the studies have brought new insights into the highly complex process of reading in L2. Furthermore, the findings have changed our perspective of L2 reading. In contrast to the old view of L2 reading as a passive decoding process, L2 reading is currently viewed as an interactive process between a L2 reader and the text. Thus, constructing meaning from the text has been viewed as the goal of reading rather than decoding or translating each word with accuracy (Carrell 1987).

Within the framework of the new interactive perspective, it is generally agreed that given reasonable facility with decoding, reading comprehension is the product of two main factors: the compatibility of the reader's knowledge and text content, and active strategies the reader employs to enhance understanding and retention, and to circumvent comprehension failures (Brown & Palincsar 1984).

Comprehension is influenced by the extent of overlap between the readers' prior knowledge and the content of the text. There have been many studies which demonstrated the influence of the readers' background knowledge on text comprehension (Anderson 1978; Mandler 1983).

Then, there are strategies. Comprehension strategies indicate how readers conceive a task, and how they make sense of what they read, and what they do when they do not understand (Block 1986). For example, the readers with reasonable decoding skills proceed relatively automatically, until a triggering event alerts them to a comprehension failure. While the process is flowing smoothly, construction of meaning is very rapid, but when a comprehension failure is detected, readers must slow down and allot extra processing to the problem area. They must employ debugging devices or active

strategies that take time and effort.

In recent years, there has been a great deal of research devoted to reading strategies and strategy training (Barnett 1988; Block 1986; Carrell 1989a; Knight, Pardon, & Waxman 1985). Carrell (1989), for example, studied the relationship between awareness of reading strategies and reading comprehension. In the study, she found that her subjects who were aware of effective reading strategies tended to perform reading comprehension tasks better than those who were not. Furthermore, Barnett (1988) found that students who effectively use strategies understood more of what they read than students who employ the strategies less. In addition, many researchers have designed reading strategies training studies that have resulted in significant improvement in reading ability (Baker & Brown 1984; Brown & Palincsar 1984).

One daunting problem for those who engage in the explicit instruction of comprehension skills is that there are so many putative strategies. There is, however, considerable agreement concerning what the most important and effective strategies might be. (Brown & Palincsar 1984). In a review of both the traditional reading education literature and recent theoretical treatments of the problem, Brown and Palincsar (1984) found that six functions were common to all: (1) understanding the purposes of reading, both explicit and implicit; (2) activating relevant background knowledge; (3) allocating attention so that concentration can be focused on the major content at the expense of trivia; (4) critical evaluation of content for internal consistency, and compatibility with prior knowledge and common sense; (5) monitoring ongoing activities to see if comprehension is occurring, by engaging in such activities as periodic review and self-interrogation; and (6) drawing and testing inferences of many kinds, including interpretations, predictions, and conclusions.

The present study was motivated by Brown and Palincsar's (1984) study on the effect of Reciprocal Teaching Method on the improvement of reading comprehension ability of native speakers of English. Based on the six underlying functions, Brown and Palincsar (1984) developed a procedure called Reciprocal Teaching in which four concrete activities -summarizing, questioning, clarifying, and predicting- were instructed. The four strategies were selected because they provide a dual function, that of enhancing comprehension and at the same time affording an opportunity for the student

to check whether it is occurring. That is, they were both comprehension-fostering and comprehension-monitoring activities.

Self-directed summarization is an excellent comprehension-monitoring technique (Brown & Day 1983; Linden & Wittrock 1981). Monitoring one's progress while reading, to test whether one can pinpoint and retain important material, provides a check that comprehension is progressing smoothly. If the reader cannot produce an adequate synopsis of what she is reading, this is a clear sign that comprehension is not proceeding smoothly and that remedial action is called for. Similarly, self-directed questioning concerning the meaning of text content leads students to a more active monitoring of their own comprehension (Andre & Anderson 1978). Thus, closing one's eyes metaphorically and attempting to state the gist of what one has read, and asking questions of clarification, interpretation, and prediction are activities that both improve comprehension and allow students to monitor their own understanding.

In the reciprocal teaching procedure, after discussing relevant background knowledge, teacher first assigned a segment of the passage to be read and either indicated that it was her turn to be the teacher or assigned the student to teach that segment. The teacher and the student then read the assigned segment silently. After reading the text, the teacher or student for that segment asked a question that a teacher or test might ask on the segment, summarized the content, discussed and clarified any difficulties, and finally made prediction about future content. However, in the initial phase, the teacher was modeling effective comprehension-monitoring strategies and the students were relatively passive observers. Gradually, the students were encouraged to participate in the activities. From the study using the method, Brown and Palincsar (1984) found that the group which received the reciprocal teaching intervention improved in reading comprehension ability more than the group which did not.

However, Brown and Palincsar's (1984) research was not conducted in a second/foreign language setting. The subject of their study were 7th grade native speakers of English, and the study was not conducted in a classroom setting; instead, the teacher worked individually with the students. In addition, although many Korean researchers have discussed the importance of teaching reading skills and comprehension strategies (Kim 1993; Soh 1987), no empirical studies have been conducted on the actual application

of teaching reading strategies in the classroom. Therefore, the present study attempts to investigate whether or not teaching reading through Reciprocal Teaching Method can be applied in the college EFL reading classroom. Then, it also examines whether the strategy training would improve EFL college students' reading comprehension proficiency. The following specific research questions were addressed: "Does strategy training through Reciprocal Teaching Method enhance L2 reading?" If so, "How is the effectiveness of reading strategy training related to the reading proficiency of college students?", in other words, "which reading proficiency group is affected most by the training?"

2. Methodology

2.1. Subjects

The subjects consisted of sixty-eight first-year college students majoring in Archeology, Esthetics, and Religion at a university in Korea. These subjects were enrolled in a College English for Liberal Arts course in the spring semester of 1996. Since no placement tests were administered to the subjects, they differed in their English reading proficiency. In this study, a reading proficiency pre-test and post-test were given to the subjects. Not all of the 68 subjects completed the tests; eighteen subjects didn't take both tests. Those who did not complete both tests were excluded from the statistical analysis.

2.2. Instruments

A reading proficiency pre-test was constructed to divide the subjects into three different reading proficiency levels. The pre-test included 40 multiple-choice items and consisted of six passages, ranging from 302 to 333 words in length. Bereiter and Bird (1985) suggest that trouble-free reading does not require readers to call upon their strategic resources. Therefore, passages which are a little beyond their current reading levels were selected. Following each passage, there were 6-7 multiple choice questions: (a) 1-2 main idea questions, (b) 2-4 factual information or detail questions, and (c) 1-2 inference questions. Among the 40 items, 10 items were main idea questions, 10 inference questions, and 20 detail questions. Based on the

results of the pre-test, students were classified into three reading proficiency groups: low, intermediate, and high. Fifteen students who received scores below 20 points were classified into the low level group; 26 students between 20 and 30 points were classified into the intermediate level group and 9 students who obtained above 30 points were classified into the high level group.

2.3. Testing Procedures

One day prior to the onset of the training, all subjects were given a reading comprehension pretest. Fourteen weeks later, when the subjects finished the 42-hour-long training, all subjects were given the same reading comprehension test as a post-test. The rationale for using exactly the same test for both pre- and post-testing was to assure an exactly comparable test, thus avoiding the problem of equating different forms of pre-test and post-test. The fourteen-week interval between administration was deemed long enough to control for any short-term memory effect; since subjects were not provided with the correct answers after the pretest, even were they to remember how they had answered a question the first time, they had no way of knowing whether that answer was correct. Moreover, any effects due to experience with the test would be comparable for each of the three groups. And, finally, one of the most common types of test reliability in psychometrics consists of such test-retest reliability.

2.4. Materials and Training Procedures

The subjects had the reading textbook, "College English for Liberal Arts", which had been provided by the university; however, English teachers were allowed to use any textbooks and materials and to develop their own tests. Therefore, the teacher (the researcher) selected twelve reading passages which would be covered during the semester from a variety of sources. Five reading passages were drawn from the subjects' textbook and seven reading passages from popular writings or ESL reading materials. The reading passages were chosen on the basis of subjects' presumed interest and for their readability.

The strategy training procedure used in this study was modified from the teaching approach of Brown and Palincsar (1984), which consisted of four

concrete reading strategies such as summarizing (self-review), questioning, predicting, and clarifying.

Prior to the training, the teacher and the class had general strategy discussion. In the discussion, reading strategies and strategic reading were defined. The teacher explained and the class discussed why learning and practicing effective strategies is important. Through this discussion, the subjects were informed of the following points: first, strategies help to improve reading comprehension; second, strategies also help enhance efficiency in reading; third, students will be reading in the way that expert readers do; finally, strategies help students to process the text actively, to monitor their comprehension. The teacher used this type of discussion not just in initial class periods, but also on a recurring basis to make sure that students were aware of the importance and value of what they were doing.

In addition, the teacher clearly and explicitly explained the specific procedure of the training method and its benefit. Next, the teacher conducted pre-reading activities in order to activate students' background knowledge related to the topic and content of the reading passage. After that, the teacher asked the students to read silently the assigned section of the passage. When the students finished this task, the teacher modelled the following reading strategies: first, the teacher summarized the section of the passage; second, the teacher composed a couple of questions on the content of the section; third, the teacher predicted the content of the following sections; finally, the teacher critically evaluated the content for internal consistency and compatibility with prior knowledge and common sense, and discussed the points that needed to be clarified. In addition to these four concrete strategies, the teacher sometimes modelled other useful strategies such as understanding rhetorical structures, guessing the meaning of unfamiliar words from context, skimming, etc. when they were relevant to the passage. In modelling the strategies, the teacher read aloud the portion of the passage, and when she did so, she used the "think aloud" technique. The teacher always tried to provide contextualized examples in order to show the students clearly which strategies are useful, how they are used, and why they are helpful.

From the very beginning, students were encouraged to participate at whatever level they could though the teacher expected that familiarity with this process would take time. In the initial phase of the training, therefore,

students were relatively passive observers. However, when the teacher felt that the students were capable of performing the four activities, she encouraged the students to participate in the four activities more actively. Some students successfully summarized a portion of the passage with or without the teacher's help; some students predicted the general content of the following paragraphs. From time to time, the teacher divided the students into groups of three or four and had each student in the groups alternately lead the activities. When the class finished reading one text, the teacher sometimes gave a summary writing assignment to students. The teacher also encouraged students to use the strategies outside the classroom so that the training could be transferred to other reading tasks. The remaining eleven reading texts were taught following the same procedure.

3. Results

The experimental data were subjected to two-way analysis of variance (ANOVA) in order to test the research questions of the present study: 1) Does strategy training enhance EFL college students' reading proficiency? 2) Which reading proficiency group (high, intermediate, low) was influenced most by the strategy training? The means and standard deviations of the pre-test and post-test reading comprehension scores for each proficiency group are presented in Table 1. The means and standard deviations of pre- and post-test total reading comprehension scores suggest strong main effects for both independent variables (proficiency level and time of task). Compared with the pre-test total reading comprehension scores ($M=23.14$), students' total reading comprehension scores from the post-test administered after the reading strategy training were significantly improved ($M=26.75$).

Table 2 shows the results of 3 (proficiency levels) \times 2 (time of task) ANOVA for the dependent variable, total reading comprehension score. Two-way ANOVA score of $F=24.60$, $df=1$, for the independent variable (Time of task), significant at the $p<.05$ level, confirms the power of the reading strategy training variable. Thus, in answer to the first research question, the result suggests that reading strategy training does enhance EFL college students' reading ability.

Table 2 also shows the results of interaction effects of the two indepen-

dent variables: proficiency level and time of task. A significant interaction between the two factors, $F=4.35$, $p<0.015$, indicates that while all of the three different proficiency groups gained scores in the post-test, they were dissimilar in the amount of the gains (See Figure 1). The reading ability of the students in the low proficiency group improved the most, followed by the intermediate proficiency group and the high proficiency group, respectively.

Table 1. Means and Standard Deviations of Main Idea, Inference, and Detailed Questions

Level	N	Pretest				Posttest			
		Main	Inference	Detailed	Total	Main	Inference	Detailed	Total
Low	15	3.27	3.60	8.80	15.70	5.47	5.47	10.60	21.54
		(1.2)	(1.5)	(2.0)	(3.6)	(1.4)	(1.5)	(2.2)	(4.1)
Inter.	26	5.89	5.00	12.73	22.60	7.07	6.15	12.15	25.38
		(1.3)	(1.4)	(2.8)	(1.4)	(1.3)	(2.4)	(2.8)	(3.4)
High	9	7.67	7.33	16.11	31.11	8.33	7.66	17.33	33.33
		(0.7)	(1.0)	(1.3)	(1.4)	(0.5)	(0.5)	(1.0)	(1.0)

Maximum total score=40, Main=10, Inference=10, Detailed=20

In order to test whether the gain scores of each proficiency group is statistically significant, the SIMPLE EFFECT test was conducted. The results of the simple effects test show that while there are statistically significant differences between the pre-test and post-test scores of the low proficiency group and the intermediate proficiency group respectively, there is no statistically significant difference between the pre-test and post-test scores of the high proficiency group (See Table 2). The results suggest that although the high proficiency group gained scores from the post-test, the improvement is not statistically meaningful; it indicates that the improvement can happen by chance. Therefore, in answer to the second research question, it appears that the low reading proficiency group benefits most from the reading strategy training, followed by the intermediate reading proficiency group. The results also indicate that although students in the high reading proficiency group benefited from the training, the benefit was the least of the three groups.

Table 2. Skeletal Source Table for the 3×2 ANOVA: Dependent Variable, Reading Comprehension Total Score

Source of Variations	Dependant Variable		
	df	F	p
Main Effects			
I. Levels	2	109.08	0.0001*
II. Time of Task	1	24.60	0.0001*
Interaction Effects			
Level \times Time	2	4.35	0.015*
SIMPLE EFFECTS			
By Level			
1. Low (Pre. vs. Post)			0.001*
2. Inter. (Pre. vs. Post)			0.014*
3. High (Pre. vs. Post)			0.23

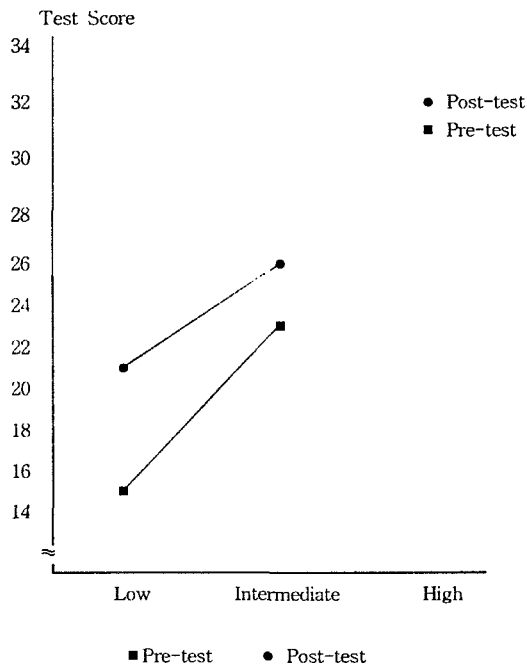


Figure 1. Visual Display of the Levels \times Time of Task Interaction for Dependent Variable, Reading Comprehension Total Score.

4. Discussion

Reading research in the L1 and L2 fields has shown that reading strategies can be taught to students, and when taught, they enhance student performance on tests of comprehension and recall (Carrell 1985; Carrell, Pharis, & Liberto 1989; Perason & Fielding 1991). Although these studies have claimed the positive effect of strategy training in the L1 or ESL settings, there have been relatively few studies to investigate the effect of strategy training on students' reading ability in an ongoing EFL college reading classroom situation. The results of this study clearly shows that the teaching approach of Brown and Palincsar (1984), which was effective for L1 students, can be successfully applied to an ongoing EFL college reading class with students whose reading abilities are divergent. The results of this study provide support for the educational value of strategy training in EFL college reading class. From this study, it was found that EFL college students' overall reading comprehension ability was significantly improved after the training.

In addition, many L1 and L2 reading researchers have demonstrated that strategy use and awareness on reading strategies are different in more and less proficient readers, and that more proficient readers use various types of strategies, and they use them in more efficient ways (Block 1986, 1992; Jimenez, Garcia, & Pearson 1995). In this study, less able readers benefited more from the strategy training than more able readers; students who were in the low and the intermediate proficiency groups exhibited more improvement than the students who already had good reading ability prior to the training. This finding suggests that the students in the low and the intermediate groups might not be aware of the types and the value of reading strategies prior to the training, or might not utilize those strategies actively even though they may be aware of them, whereas the students in the high group might already know and utilize them efficiently. This may explain the reason why the amount of the gain made by the two groups was relatively greater than that made by the most proficient group. From these findings, it can be claimed that strategy training may be most helpful for less able readers although it still helps more able readers in enhancing their reading ability. Therefore, ESL/EFL reading teachers should make an effort to incorporate the reading strategy training into their reading instruction.

5. Conclusions

The purpose of the present study was to investigate the impact of strategy training on the reading ability of EFL college students. It also aimed to obtain answers for the differential effect of the strategy training on students' reading proficiency level. The findings of the study showed that the reading strategy training through Reciprocal Teaching Method does improve EFL college students' reading proficiency. Furthermore, the present study demonstrated that less able readers benefited more from the training than more able readers. The amount of gains made by the low and the intermediate reading proficiency group was found to be much greater than that made by the high proficiency reading group. These findings suggest that strategies can be taught and help EFL college students improve their reading comprehension ability.

Given that one of the most important goals of teaching reading is to help our students develop as strategic and independent readers, several suggestions for EFL reading teachers can be made on the basis of the findings of the study. First, as instructed in this study, strategies should be taught through direct explanation, explicit teacher modeling, and extensive feedback. In addition, students should never be in doubt as to what the strategies are, where and when they can be used, and how they are used. More importantly, they should be informed of the value and usefulness of strategies in L2 reading. Second, EFL readers, particularly less capable EFL readers, should be given an intensive and contextualized strategy training for a long period. As Gaskins (1994) claims, decontextualized teaching of strategies for a short period would not have a long-term effect on students and effectively help them develop as strategic readers. In conclusion, the results of the study suggest that foreign language reading pedagogy, especially for adult students in academic settings, should benefit from explicit and direct strategy training.

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