



# **The Effect of Reciprocal Teaching Intervention Strategy on Reading Comprehension Skills of 5<sup>th</sup> Grade Elementary School Students with Reading Disabilities**

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## **Abstract**

*This study investigated the effect of using reciprocal teaching intervention strategy on improving reading comprehension of reading disabled students in primary five. A total of 66 students identified with RD participated. The sample was divided into two groups; experimental (n=33 boys) and control (n=33 boys). ANCOVA and t-test were employed for data analysis. Findings from this study indicated the effectiveness of reciprocal teaching intervention strategy on improving reading comprehension in the target students. On the basis of the findings, the study advocated for the effectiveness of reciprocal teaching intervention strategy on improving reading comprehension in reading disabled students.*

**Keywords :**Reciprocal teaching intervention strategy, reading comprehension, reading disabilities.

## **Introduction**

Reading comprehension is the process of constructing meaning from a text and involves the complex coordination of several processes, including “decoding, word reading, and fluency along with the integration of background knowledge and previous experiences” (Klinger & Geisler, 2008, p. 65). Reading comprehension can be influenced by students' vocabulary knowledge, word recognition skills, understanding of text structure proficiency, and cultural background differences (Esam, 2015; Francis et al., 2006; Klinger & Geisler, 2008; Mohammed, M. Fatah Allah, 2014). Vocabulary knowledge has been shown to be highly related to students' reading comprehension ability (Klinger, et al., 2006). Students who struggle with reading tend to place more focus on the “surface aspects of reading, use fewer comprehension strategies, tap less into background knowledge, and have more limited vocabularies” (Orosco, de Schonewise, de Onis, Klinger, & Hoover, 2008, p. 16).

Many researchers on reading strategy instruction according to Mohammed and Abbas (2012), state that metacognitive strategy training improves students' reading comprehension. It gives students a chance to plan before reading, control their reading process, organize their own rules, and evaluate themselves. Metacognitive strategy training shapes the students to become independent readers which is the goal of reading. Thus, in the reading classrooms, students should be trained to use metacognitive strategies to help them comprehend texts. The reciprocal teaching approach is one of the reading instruction methods which covers both cognitive and metacognitive strategies and helps students improve their reading comprehension and thus become independent readers.

*Reciprocal Teaching Strategy and Reading comprehension* In the area of reading comprehension interventions, reciprocal teaching has been proven to increase the reading comprehension abilities of students (Lederer, 2000). According to Palincsar, David, and Brown (1989) reciprocal teaching is:

*an instructional procedure designed to enhance students' comprehension of text. The procedure is best characterized as a dialogue between teacher and students. The term 'reciprocal' describes the nature of interactions since one person acts in response to another. The dialogue is structured by the use of four strategies: questioning, summarizing, clarifying, and predicting. The teacher and students take turns assuming the role of the leader (p 5).*

The reciprocal teaching approach is one of the reading instruction methods which cover the necessary reading strategies: predicting, generating questions, clarifying, and summarizing. It helps students improve their reading comprehension, and thus become better readers. The aim of reciprocal teaching is to use discussion to improve students' reading comprehension, develop self-regulatory and monitoring skills, and achieve overall improvement in motivation (Mohammed & Abbas, 2012). Palincsar and Brown (1984), in their original research, used four discrete reading comprehension strategies within reciprocal teaching: questioning, summarizing, clarifying, and predicting.

1. *Questioning*: Questioning involves the identification of information, themes, and ideas that are central and important enough to warrant further consideration. The central or important information, themes, or ideas are used to generate questions that are then used as self-tests for the reader. Questioning provides a context for exploring the text more deeply and assuring the construction of meaning.
2. *Summarizing*: Summarizing is the process of identifying the important information, themes, and ideas within a text and integrating these into a clear and concise statement that communicates the essential meaning of the text. Summarizing may be based on a single paragraph, a section of text, or an entire passage. Summarizing provides the impetus to create a context for understanding the specifics of a text.
3. *Clarifying*: Clarifying involves the identification and clarification of unclear, difficult, or unfamiliar aspects of a text. These aspects may include awkward sentence or passage structure, unfamiliar vocabulary, unclear references, or obscure concepts. Clarifying provides the motivation to remediate confusion through re-reading, the use of context in which the text was written and/or read, and the use of external resources (e.g., dictionary or thesaurus).
4. *Predicting*: Predicting involves combining the reader's prior knowledge, new knowledge from the text, and the text's structure to create hypotheses related to the direction of the text and the author's intent in writing. Predicting provides an overall rationale for reading – to confirm or disconfirm self-generated hypotheses.

According to Palincsar and Brown (1984), reciprocal teaching is an instructional approach that can be best characterized by three main features: (a) the scaffolding and explicit instruction which a teacher uses and which include guided practice and modeling of comprehension-fostering strategies, (b) the four main reading strategies of predicting, generating questions, clarifying, and summarizing, and (c) social interaction which provides opportunities for learners to improve their cognitive, metacognitive and affective strategies and offers them chances to share ideas, increase confidence, and learn from their more capable friends. These three features help improve the students' ability to resolve comprehension difficulties, reach a higher level of thinking, build metacognition, and increase motivation (Mohammed & Abbas, 2012)

Further research is necessary to build on the vast amount of research into reciprocal teaching with reading disabled students. This will allow researchers to determine how reciprocal teaching can be best used as an intervention with learning disabled students as there is a dearth of research with this population.

In order to address this issue with the lack of research on reciprocal teaching with reading disabled students. Thus the present study seeks to give answers to the following questions.

1- Are there differences in post-test scores mean between control and experimental groups on Reading Comprehension Test?

2- Are there differences in pre-post-test scores mean of experimental group on Reading Comprehension Test?

## Methods

### *Participants*

66 students participated in the present study. Each student participant met the following established criteria to be included in the study: (a) a diagnosis of RD by teacher's referral. Neurological scanning results indicated that those individuals were neurologically deficient (b) an IQ score on the Mental Abilities Test (Mosa, 1989) between 90 and 118 (c) reading performance scores at least 2 years below grade level (d) absence of any other disabling condition. Students were randomly classified into two groups: experimental (n= 33 boys ) and control (n= 33 boys).

The two groups were matched on age, IQ, and reading comprehension. Table 1 shows means, standard deviations, t- value, and significance level for experimental and control groups on age ( by month) ,IQ and reading comprehension (pre-test).

Table 1. *means, standard deviations, t- value , and significance level for experimental and control groups on age ( by month),IQ, and reading comprehension ( pre-test).*

Variable	Group	N	M	SD	T	Sig.
Age	Experimental	33	133.09	1.68	0.221	Not sig.
	Control	33	133.00	1.65		
IQ	Experimental	33	99.51	5.80	-1.433	Not sig.
	Control	33	101.54	6.70		
Reading comprehension	Experimental	33	19.51	1.37	-.439	Not sig.
	Control	33	19.66	1.42		

Table 1. shows that all t- values did not reach significance level. This indicated that the two groups did not differ in age, IQ , and reading comprehension ( pre-test).

### *Instrument*

*Reading Comprehension Test.* The test was developed to assess reading disabled children's skills in reading comprehension. It was based on the features of comprehension skills recognized by Mourad Ali (2005). The test consists of (44) items assessing word recognition, and comprehension with score ranging from 0-1 on each item and a total score of 44. The test has demonstrated high internal consistency with Cronbach's  $\alpha$  ranging from 0.79 to 0.84.

### *Procedure*

*Screening:* Primary five students who participated met the following established criteria to be included in the study: (a) a diagnosis of RD by teacher's referral. Neurological scanning results indicated that those individuals were neurologically deficient (b) an IQ score on the Mental Abilities Test (Mosa, 1989) between 90 and 118 (c) reading performance scores at least 2 years below grade level (d) absence of any other disabling condition.

*Pre-intervention testing:* All the forty students in grade four completed the reading comprehension test which was developed to assess reading disabled children's skills in reading comprehension.

*General Instructional Procedures:* Instruction was delivered after school, in the multipurpose room. Permissions were obtained from students' fathers, and the school principal. Students

received 3 training sessions a week, lasting between 40 and 45 min. The researcher presented the lesson in accordance with this strategy, where a schedule distributed to students by the four sub-strategies for reciprocal teaching strategy: prediction, questioning, summarizing, and clarification. In the first phase of the lesson the researcher leads the dialogue, applying the strategies to one of the paragraphs. Grade students are divided into cooperative groups (each group of five individuals), in accordance with sub-strategies involved. The following roles are distributed between the members of each group so that each individual has only one role: Summarizer, inquirer, clarifier, and predictor. A leader is determined for each group (the role of the teacher in the dialogue management) taking into account exchanging roles with other members of the group. Interactive dialogue within the group begins with the leader / teacher runs the dialogue, and each individual within each group presents its mission to the rest of the members of the group, and answers their questions about what he has done.

### *Design and Analysis*

The effects of implementing reciprocal teaching intervention strategy on students' reading comprehension skills were assessed using pre- post testing.

### **Results**

Table 2 shows T. test results for the differences in post- test mean scores between experimental and control groups in reading comprehension test. The table shows that (t) value was (28.31). This value is significant at the level (0.01) in the favor of experimental group. The table also shows that there are differences in post- test mean scores between experimental and control groups in comprehension test in the favor of experimental group.

Table 2. *T- test results for the differences in post- test mean scores between experimental and control groups in comprehension test*

<b>Group</b>	<b>N</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>t</b>	<b>Sig.</b>
Experimental	33	34.57	2.35	28.31	0.01
Control	33	20.57	1.58		

Table 3. shows T. test results for the differences in pre- post test mean scores of the experimental group in reading comprehension test. The table shows that (t) value was (28.31). This value is significant at the level (0.01) in the favor of experimental group. The table also shows that there are differences in pre- post test mean scores of the experimental group in reading comprehension test in the favor of post test.

Table 3. *T- test results for the differences in pre- post test mean scores of the experimental group in reading comprehension test*

<b>Testing</b>	<b>Mean</b>	<b>Std. Dev</b>	<b>t</b>	<b>Sig.</b>
Pre	19.51	1.37	31.70	0.01
Post	34.57	2.35		

### **Discussion**

The main objective of the present study was to explore the effects of implementing reciprocal teaching intervention strategy on students' reading comprehension skills.

The results of this study show that implementing reciprocal teaching intervention strategy was effective in improving reading comprehension of students in experimental group, compared to the control group whose individuals were left to be taught in a traditional way.

The researcher draws conclusions that are from the students' roles and from the teacher's roles. First is from the students' roles. The students' roles are more focused on the involvement of some certain activities. The students' activities are paying attention to the teacher's explanation, making a discussion with other friends, sharing their knowledge, answering the questions enthusiastically, helping each other in understanding the lesson material and learning from their friends who also learn the same thing. By using reciprocal teaching, the students become more active in joining and paying attention to the lesson. The students are given opportunities to understand the lesson material more by asking other group member without being ashamed and afraid, since the students are usually afraid to ask the difficulties to the teacher. Second is from the teacher's roles. There are some teacher's roles that appear while applying reciprocal teaching in reading comprehension. The teacher can play roles as planner, manager, quality controller, facilitator and motivator. The teacher can play those roles well when conducting teaching reading comprehension by using reciprocal teaching. However, the major role is the teacher as facilitator, while the other roles supported the teacher's role as facilitator.

Participants of this study fall into the minimum IQ of 90, nevertheless, they have learning disability. Thus IQ score cannot account for learning disabilities. The results of the present study support that conclusion with evidence that students who participated in the study do not fall into the low IQ range, however they have learning disabilities. When designing a program based on reciprocal teaching intervention strategy, they had statistical increase in reading comprehension.

This goes in line with what Mourad Ali et al (2006) notes that there is one problem "students who are identified as learning disabled often cover any special abilities and talents, so their weakness becomes the focus of their teachers and peers, ignoring their abilities."

Mourad Ali (2007), however, notes that "learning disabled, as well as gifted students can master the same contents and school subjects", but they need to do that in a way that is different from that used in our schools.

Experimental group gained better scores in reading comprehension than did control groups in post-tests though there were no statistical differences between the two groups in pre-test. This is due to the program which met the experimental group's needs and interests. On the contrary, the control group was left to be taught in a traditional way.

This goes in line with our adopted perspective which indicates that traditional methods used in our schools do not direct students as individual toward tasks and materials , and do not challenge their abilities. This may lead students to hate all subjects and the school in general. On the contrary, when teachers adopt reciprocal teaching intervention strategy that suits students interests and challenge their abilities with its various modalities .

## **Implications**

The results of this study have several important implications. This study adds to the literature on the effectiveness of reciprocal teaching intervention strategy with learning disabled students. Results appear to indicate that reciprocal teaching intervention strategy in an effective instructional strategy for improving reading comprehension test scores of students with learning disabilities.

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