

## ORIGINAL ARTICLE

# Effects of Reciprocal Teaching Strategy on EFL Students' Reading Comprehension and Self-Efficacy: Grade 9 in Focus

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## Abstract

The purpose of this study was to investigate effects of reciprocal teaching strategy on EFL students' reading comprehension and self-efficacy. The research employed quasi-experimental research design. In the study, Shinta Secondary School was chosen using simple random sampling technique, and grade 9 was chosen purposively. From this grade level, two sections (one experimental and the other control groups) were selected through simple random sampling technique. To collect data, reading comprehension tests and self-efficacy questionnaire were employed. The data were analyzed quantitatively using independent samples t test (mean, standard deviation, t-value and p-value). The study uncovered that there was a significant difference in reading comprehension between the experimental and control groups in favor of the experimental one. The study also showed that the low and the high-performing students in the experimental group outperformed those of the control group in reading comprehension. In addition, there was a significant difference in reading self-efficacy scores between the experimental and control groups favoring the experimental one. Accordingly, the study concluded that reciprocal teaching strategy enhanced students' reading comprehension and self-efficacy beliefs. Based on the results and conclusion, it is suggested that EFL teachers and students should implement reciprocal teaching strategy in reading classes.

**Keywords:** reading comprehension, reciprocal teaching strategy, self-efficacy

## Background

Reading is an active process in which readers construct knowledge through linking text information with their prior knowledge (Tracey & Morrow, 2006). It plays indispensable roles in determining learners' academic achievement and lifelong learning (Chawwang, 2008; Moneus, 2018). Reading enables students to obtain a wide range of linguistic inputs which can gradually be cognitive skills (Soto et al., 2019). Furthermore, reading is one of the most crucial skills to obtain much of other content-related knowledge (Motuma,

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2019). This implies that reading takes the lion's share in students' academic scenarios.

Additionally, learners' self-efficacy, which is the belief they hold about their abilities to perform a given task, plays a central role in academic achievement. As to Henk et al. (2012), Boakye (2015) and Unrau et al. (2017), self-efficacious learners are motivated to put more effort, persevere longer and accomplish a task successfully. Several studies also indicate that there is a strong correlation between reading self-efficacy and reading competence in which the self-efficacy belief predicts the reading comprehension competence (Pajares, 2006; Mizumoto, 2012; Carroll & Fox, 2017; Shehzad et al., 2019). This implies that students are required to have firm self-efficacy beliefs to comprehend texts better.

However, considerable inquiries have reported that the Ethiopian high school students lack the required reading comprehension performance (Abiy & Adelaahu, 2013; Mebratu, 2014) and reading self-efficacy beliefs (Mengistie et al., 2023). Niguse (2019) and Mengistie et al. (2023) emphasized that students do not usually trust on their abilities to perform reading tasks effectively. This shows that learners with low self-efficacy cannot complete reading tasks properly, and have lack of reading comprehension as a result.

One of the reasons for students' poor reading self-efficacy and proficiency may be related to the current practice of teaching reading skills. Local studies (Yenus, 2018; Getnet et al., 2021) showed that the actual reading instruction in Ethiopian secondary schools does not seem to consider the proper application of reading procedures. Mengistie et al. (2023) and Tadele et al. (2023) also indicated that improper practice of reading strategies appears to be an influential factor for reading deficits and low self-efficacy.

According to Brown (2001), Pan (2014) and Tadele et al. (2023), reading instructions should bolster strategies in order to help learners develop their perceived efficacy and overcome reading difficulties. Among the reading strategies, reciprocal teaching (RT) is the one which incorporates a set of other four strategies (predicting, questioning, clarifying and summarizing) to resolve reading complexities. By prediction, students can extrapolate what a text will be about and set overall purposes for their readings. Thus, learners could plan ahead before the initiation of reading, monitor their reading comprehension and evaluate their reading progress and themselves. By questioning, they could stipulate a text more deeply. Through clarification, the students can clear up their confusions, and by summarization, they differentiate, pinpoint and make short versions which offer them the motivation to comprehend the entire text (Freihat, 2012; Pan, 2014). The RT strategy could, therefore, help students to mitigate reading difficulties.

Besides, RT values modeling and guided practice on predicting, questioning, clarifying and summarizing strategies so that learners can be aware of when and how to apply these strategies in reading classes (Pan, 2014; Navaie, 2018). Moreover, RT fosters collaborative practices on reading tasks in small groups in order that students can scaffold each other when reading difficulties occur (Navaie, 2018; Jones, 2021). Furthermore, RT empowers learners to take responsibilities and engages in tasks actively; thus, learners could be

accountable for their learning (Choo et al., 2011; Ojo, 2015). This suggests that the application of RT strategy may augment students' self-efficacy and reading comprehension skills.

There is, however, a contention between interactionists about the advantage of social learning strategies. On the one hand, scholars like (Arends, 1997; Dunne et al., 2007; Chang & Brickman, 2018) argue that it is usually the high achievers who dominate and take advantages over the less able learners in group tasks. On the other side, researchers like (Choo et al. 2011; Seid, 2012; Ojo, 2015) claim that the low-performing learners are also beneficiaries from team tasks as they have scaffolding from others and take their shares in group activities. This suggests the researchers that when group members in RT strategy are small in number and heterogeneous and have clearly defined roles during tasks, both achievers could engage in tasks, assist each other, and be effective in reading lessons.

As to the researchers' teaching experience and observations in community service engagements, a number of secondary school students in Gondar town faced reading difficulties. Many of them did not attain tasks independently because of lack of self-efficacy beliefs. Rather, they demanded support from their teachers and partners. However, grade nine EFL teachers were not observed applying supportive reading strategies. This indicated the researchers that the RT strategy which is characterized by interactions among students and the explicit application on predicting, questioning, clarifying and summarizing strategies might remediate students' self-efficacy beliefs and reading comprehension.

At a global level, Freihat (2012), Pan (2014), Gomaa (2015) and Navaie (2018) ensured that RT could boost students' reading performance. On the contrary, AL-Hilawani et al. (1993), Hancock (2012), Brown (2015) and Jones (2021) unveiled that RT did not enhance students' reading comprehension abilities. The aforementioned studies show that there are inconclusive findings of the RT on students' reading comprehension achievements. Therefore, there is still a demand of examining RT strategy on students' reading comprehension. In line with this, Davidson (2015) and Jones (2021) suggested that further studies are pivotal to determine the actual effect of the RT to reconcile the inconsistent findings.

To the researchers' knowledge, RT has been given little attention in Ethiopian context both in instructional process, and research. There are scanty studies at local level. For instance, Mekibib (2019) examined the effect of peer tutoring on students' achievement in physics. The study reported that peer tutoring improved learners' score. More pertinently, Michit et al. (2019) scrutinized the impact of RT on reading performance. Then, the study showed that RT improved students' reading comprehension.

The present study, however, differs from the aforementioned studies in that it examined the effect of RT on high and low achievers' reading comprehension independently. This was because the impact of RT on both achievers' performance is a contentious area. As to

Arends (1997) and Dunne et al. (2007), social learning strategies are usually beneficial for high-competent learners. On the other side, Choo et al. (2012) and Ojo (2015) contended that social learning strategies can also help the less-competent learners. Therefore, conducting the study to determine whether or not the RT could enhance the reading comprehension abilities of the high and the low-performing students is still a research demanding area which the aforementioned international and local studies did not consider.

Moreover, the study investigated the impact of RT on students' reading self-efficacy that the above studies did not take into account. The rationale was that the self-efficacy which students have about their reading abilities vastly matters to their comprehension (Mizumoto, 2012; Carroll & Fox, 2017); hence, examining the effect of RT on reading self-efficacy sounds invaluable to take immediate actions. Accordingly, the study endeavored to fill in the existing research gaps by posing the following questions.

1. Does reciprocal teaching strategy enhance students' reading comprehension?
2. Is there a significant difference in teaching reading comprehension through the RT strategy on the high and the low achievers?
3. Does the reciprocal teaching strategy improve the students' reading self-efficacy beliefs?

## **Theoretical and Conceptual Framework**

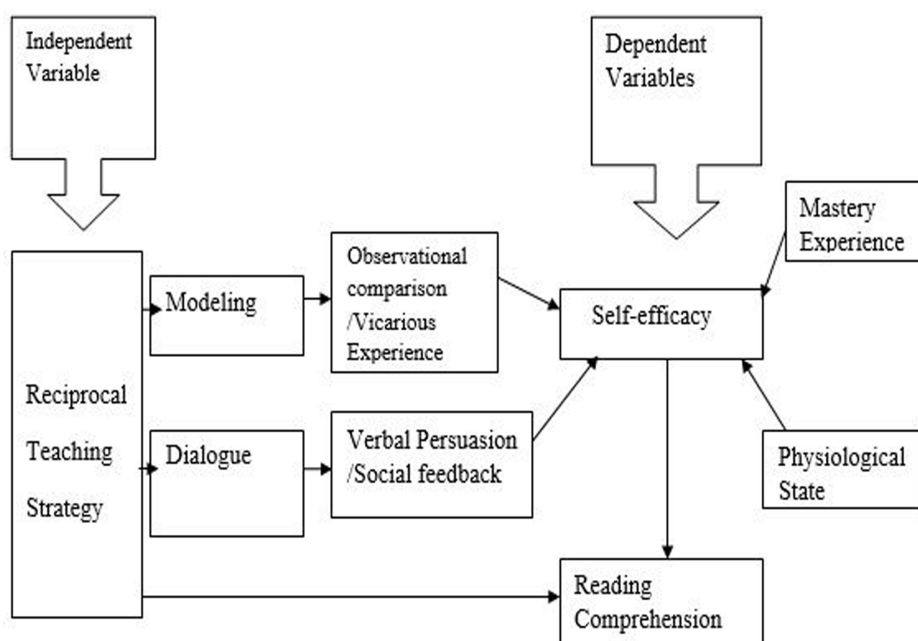
The reciprocal teaching (RT) strategy which stemmed from the social constructivism theory basically involves collaborative practice on learning and underpins on zone of proximal development, dialogue, and scaffolding. In other words, RT is characterized by dialogues, responsibility sharing, and scaffolding (Ahmadi & Gilakjani, 2012; Navaie, 2018). Students work with others to solve reading perplexities, and skilled classmates offer assistance to them (Ojo, 2015; Pan, 2014). Therefore, the more students engage in discussions, the better they scaffold each other, build self-efficacy, and comprehend texts.

Moreover, RT encourages learning through observations. This indicates that it has a relation to the social-cognitive and social-constructive theories which value learning from the environment (parents, peers and teachers) (Pan, 2014; Navaie, 2018). In other words, RT advocates modeling on predicting, questioning, clarifying and summarizing strategies so that students can observe and implement the modeled strategies accordingly. In Bandura's (1977) experiment, a child was watching while adults were either playing or fighting with a Bob doll. Then, Bandura found that the child imitated and practiced what he had watched. Likewise, literature evidences that RT credits modeling and social learning (Navaie, 2018). The modeling feature of the RT can, thus, be connected with students' reading self-efficacy. Bandura (1977) and Shehzad et al. (2019) affirmed that the observational comparisons/vicarious experiences, which is the sources of self-efficacy, originate from observation. This observational experience can persuade someone to believe that he/she can also complete the same task. Thus, in

RT, when students observe their peers using reading strategies effectively, they believe that they can also do the same thing.

Additionally, the verbal persuasion/social feedback, which is the source of self-efficacy, can be affected by the application of the RT. As to Shehzad et al. (2019), the feedback individuals receive from others influences their performance. When students work in groups, they discuss ideas, comment on others' work, and encourage each other. Therefore, the feedback learners receive from their peers could promote their reading self-efficacy beliefs. Furthermore, considerable studies showed that reading self-efficacy can affect students' reading comprehension (Pajares, 2006; Mizumoto, 2012; Boakye, 2015; Unrau et al., 2017). Let us look at figure 1 (below) for more clarification.

Figure 1: The relationship between RT, reading comprehension, and self-efficacy



## Methodology

### Research Design

The study employed quasi-experimental research design. Mackey and Gass (2005), and Creswell (2009) affirm that in a quasi-experimental research, participants are not randomized. Despite the absence of randomization, the quasi-experimental design was used in the present study because it enabled the inquiry to take naturally existing groups without disrupting classes which had already been formed by the school.

## **Source of Data, Participants, and Sampling Techniques**

The study was conducted in one of the governmental secondary schools in Gondar city. In the city, there are eight secondary schools. Out of those, Shinta Secondary School was chosen using simple random sampling technique. The reason for using simple random sampling technique was that firstly the technique could give equal opportunities to other schools to be selected in the study. Secondly, the nature and method of teaching reading skills in schools in the city was almost similar (Yoseph, 2014; Mengistie, 2023).

In the school selected, 9<sup>th</sup> grade was chosen purposively because this grade level is the beginning and critical level for both secondary and tertiary levels where learners are expected to obtain much of their knowledge through reading and prepare themselves for the next grades. Thus, learners in this grade level need to be strategic to develop a good reading habit. That was why the reciprocal teaching strategy was given to them. At grade 9, there were eight sections, and of which two sections were selected (one as a control and the other as an experimental group) for the study through simple random sampling technique. Since there were two groups following different procedures (the reciprocal teaching and conventional teaching procedures) in the course of the study, two teachers were also selected. The rationale for taking two teachers was for fear that the two procedures might overlap when one teacher implemented them.

## **Instruments**

### **Reading Comprehension Tests**

The study employed pre-test and post-test reading comprehension tests. Reading passages for the tests were adapted from Chesla's (2010) reading texts. From the source, only three reading texts which sounded appropriate in length and level of difficulty vis-à-vis the passages in students' textbook were taken for reading comprehension tests. The reading comprehension tests included three tests such as the placement test, the pre-test and post-test. Each test had thirty items including recognizing general ideas, understanding references, discerning meanings of vocabularies, inferring implied ideas, distinguishing purposes of texts, discriminating facts from opinions, and determining tones of authors. The format of the tests was multiple choice. The purpose of the placement test was merely to label students as high and low-achievers. This test was administered before the intervention. But, the pre-test had two purposes: it was to see whether or not the control and the experimental groups had similarity prior to the intervention, and it served to place students as high-and low-achievers. However, the purpose of the post-test was to determine if RT has brought significant difference on reading comprehension between the experimental and control groups after the experiment.

## Questionnaire

In this study, a survey of self-efficacy questionnaire was used to assess students' reading self-efficacy beliefs as pre- and post-tests. The questionnaire was adapted from Henk et al. (2012). The questionnaire had thirty-two items with six Likert scales ranging from 'it is certainly true of me' (6) to 'it is not true of me at all' (1). It incorporated four dimensions of self-efficacy such as mastery of experience/previous performance, vicarious experience/observational comparison, verbal persuasion/social feedback and physiological state. The questionnaire was designed in English initially, and then translated into Amharic (the students' first language) to overcome the respondents' linguistic barriers. The questionnaire was administered before and after the intervention.

## The Validity and Reliability of the Instruments

The reading comprehension tests (pre-test) and (post-test) were first designed and given to TEFL experts and grade nine teachers to ensure their validities. Then, the tests were evaluated whether or not they included/covered fundamental aspects of reading comprehension. Regarding face validity, some changes such as phrasing, sequencing and formatting of questions, and clarifying instructions were made to the drafts of the tests. In a similar vein, questions in the questionnaire were reviewed by colleagues of the researchers. Then, the comments were taken into account. That was, the items which might confuse participants were clarified. In addition, the Amharic version of the students' questionnaire was commented on its English version.

Once the validity was considered, the reliabilities of the reading comprehension tests and the questionnaire were checked. In fact, the parallel/alternative form reliability was used for the reading comprehension tests for the following reasons. Firstly, the parallel form reliability minimizes the memory effect that the participants could carry over in test retest reliability. Secondly, it could reduce the issue of subjectivity and bias which a variety of raters might bring on the same test in inter-item reliability. For these reasons, the study applied parallel/ alternate form reliability. Then, the scores obtained from the two sets were calculated using the Pearson product-moment correlation, and the result was .873 which showed the high correlation between the two tests. In addition, the reliability of the questionnaire was checked using Cronbach alpha, and it was found .936 showing very high reliability of the questionnaire.



## **Procedures of the Study**

### **Procedures for Experimental Group**

The experimental group students learnt reading skills through the following phases adapted from (Duke et al., 2011).

#### **Phase 1: Training/Explicit Description Phase**

Training or explicit description about the application of RT was given to the experimental group teacher (for two hours) and students (for three hours). This description was to familiarize the teacher and students with the strategy on when, why and how they could apply reciprocal teaching strategy. In order to make predictions, the students were explicitly briefed to use different techniques like previewing headings and sub-headings of texts, looking visual clues (photos, pictures, graphs, maps and diagrams), visiting pre-reading questions, using key vocabularies, and skimming the introductory parts of texts. To generate questions, both close and open-ended questions were informed to the students to interrogate reading materials and themselves. To clarify perplex vocabularies and concepts, specific techniques such as rereading, breaking down complicated vocabularies into root words and affixes, adjusting reading rate, using contextual clues (synonyms, antonyms and definitions) and asking for help were explicitly briefed to the experimental group students. Moreover, to summarize reading texts, the students were told to identify main and specific ideas leaving out detailed and repeated issues and make summaries in their own words. This introduction was given in the pre-intervention phase.

#### **Phase 2: Modeling Phase**

The experimental group teacher modeled the reciprocal teaching strategies (predicting, questioning, clarifying and summarizing) through thinking-aloud procedure what he was mentally doing while reading to students. This was to show practical examples to the students how they could implement each strategy while reading. The modeling phase was carried out in the pre-intervention phase in two reading lessons.

#### **Phase 3: Guided Practice Phase**

Students started practicing reciprocal teaching through the guide of their teacher. To this end, groups were formed consisting of four students having high and low achievers together. Besides, responsibilities were assigned to the students: they became predictors, questioners, clarifiers and summarizers, and these roles of the students in a group were exchanged with respect to daily reading classes. They practiced predicting, questioning, clarifying and summarizing within their groups. In this phase, the teacher also helped the students and even demonstrated the strategies to them when necessary. The guided practice phase was undergone during the intervention for four reading lessons.



#### **Phase 4: Independent Practice Phase**

As their practice on the RT went on, students became aware and capable of implementing it on their own. In this phase, students independently practiced the strategies of predicting, questioning, clarifying and summarizing with their group members. In other words, the students made predictions, questions, clarifications and summaries, and shared their views. They negotiated ideas and assisted each other with teammates. In independent practice phase, the teacher facilitated students' learning like encouraging students to engage in group discussions, supporting students-led discussions, monitoring students' progress, guiding students when they were in need of his assistance and providing comments on their work. This independent practice was done during the intervention phase for four reading lessons. Totally, the experiment lasted ten reading lessons.

#### **Procedures for Control Group Students**

The control group students did reading tasks implicitly and independently. That means, direct strategy instruction and modelling were not undertaken: the control group students received no strategy training and awareness creation about when, why and how to implement predicting, questioning, clarifying and summarizing while accomplishing reading activities. And, the nature of the classroom instruction was whole-class-instruction than group-based conversation.

#### **Data Collection Procedures**

The researchers first asked permission from the school director of Shinta Secondary School. After having the permission of the school, the researchers contacted grade nine English language teachers to secure their willing in participating in the study. Then, the researchers also asked students for their willingness to take the reading comprehension tests and the questionnaire and explained the general purposes of the instruments.

Once the participant students became aware of the purpose of the study and volunteered to take the tests, the pre-tests on reading comprehension and reading self-efficacy questionnaire were given out to them by the researchers and one of their teachers. Next, the reading comprehension tests were marked, and two sections scoring nearly similar results were identified. After that, one was selected as an experimental and the other one as a control group through simple random sampling technique. Then, the high-performing and low-performing students were identified based on their scores of the two reading comprehension tests. For this matter, the students who scored half (15, the mean value) and above were placed as high performing; whereas, those who scored below the mean value were regarded as low-performing students.

Following the assignment of the experimental and control group students, the interventional training about the RT strategy was given to the experimental group teacher and students. The teacher's training was for four hours, and that of the students was for three hours.

Next, the experimental group students formed groups consisting of four students with high-and low achievers and learnt reading skills via RT strategy for ten reading lessons. However, the control group students learnt reading skills conventionally. As soon as the intervention was completed, the post-tests on reading comprehension and reading self-efficacy beliefs were administered to the experimental and the control group students.

## Methods of Data Analysis

In the study, assumptions (normal distribution, outliers and homogeneity of variance) of independent samples were first checked. Then, the data from both the reading comprehension tests and self-efficacy questionnaire were analyzed quantitatively using independent samples (mean, standard deviation, t-value and p value).

## Ethical Considerations of the Study

The study used the approval letter from the Department of English Language and Literature at the University of Gondar. Through the letter, the researchers requested the permission of Shinta Secondary School, and then contacted grade nine EFL teacher and students to inform them the purpose of the study. The experimental group students were also announced that they could take roles of predicting, questioning, clarifying and summarizing when they learnt reading skills through the reciprocal teaching strategy. Because the teacher and the students were volunteers to participate in the study and take the above responsibilities in reading lessons, they signed consent form. In general, all the confidentiality, anonymity and voluntary participation of the participants were taken into account.

## Results

### 1. Effects of Reciprocal Teaching on Students' overall Reading Comprehension

Table 1 below presents the pre-test and post-test scores of the experimental and control group students' reading comprehension data.

Table 1: Independent Samples t test: the Pre and Post-tests of the Control and Experimental Groups

Test Type	Groups	N	X	SD	d/f	t-value	p-value
Pre-test	Control	57	13.88	5.071	114	.242	.809
	Experimental	58	13.66	4.547			
Post-test	Control	57	13.75	4.286	114	-2.581	0.011
	Experimental	59	15.95	4.844			

Keys: N stands for number of students; X represents mean scores and SD refers to standard deviation and d/f refers to degree of freedom.

As can be seen from table above, the descriptive statistics unveiled that the control and experimental groups scored 13.88 and 13.66 respectively in the pre-test reading comprehension test. The mean scores between the two groups looked similar in reading comprehension competence. The independent samples ( $t = .242$ ,  $df = 114$ ,  $p = .809$  ( $>.05$ )) further uncovered that there was not statistically significant difference between the experimental and control group students' reading comprehension. This indicates that both groups had the same initial competence in their reading comprehension competence prior to the intervention.

However, the descriptive data in the post-test witnessed that the control and experimental group students scored 13.75 and 15.95 respectively in the reading comprehension. The mean scores between the two groups appeared different. The independent samples t test ( $t = -2.581$ ,  $df = 114$ ,  $p = 0.011$  ( $< .05$ )) also pointed out that there was a statistically significant difference between the two group students' reading comprehension favoring the experimental group.

## 2. Effect of Reciprocal Teaching on Low Achievers' Reading Comprehension

The following table displays the pre-test scores of the control and experimental group low achievers' reading comprehension.

Table 2: Independent Samples: t-test Statistics on the Control and Experimental Groups Low Achievers' Reading Comprehension the Pre-test Score

Groups	N	X	SD	d/f	t-value	p-value
Control group	29	9.97	2.784	56	.513	.610
Experimental group	29	9.59	2.848			

In Table 2, the data depicted that low achievers in the control and experimental groups got 9.59 and 9.97 in reading comprehension pre-test mean scores respectively. The data in the independent samples t test ( $t = .513$ ,  $df = 56$ ,  $p = .610$  ( $>.05$ )) revealed that there was non-significant difference in reading comprehension between the control and experimental groups.

To determine the effect of RT on the low achievers' reading comprehension, let us take a look at the following data in the post-test.

Table 3: The Control and Experimental Groups Low Achievers' Reading Comprehension the Post-test

Groups	N	X	SD	d/f	t-value	p-value
Control group	29	10.45	2.823	56	-2.089	.041
Experimental group	29	12.10	3.200			

As can be seen in Table 3, the descriptive data evidenced that the low-performing experimental and control group students attained 12.10 and 10.45 mean scores in their post-test respectively. The data may indicate that there seemed a difference between the reading comprehension scores of the two groups. The independent samples ( $t = -2.089$ ,  $df = 56$ ,  $p = .041$  ( $<.05$ )) also showed that there was a significant difference between the scores of the experimental and control group low-performing students favoring the experimental one.

### 3. Effect of Reciprocal Teaching on High Achievers' Reading Comprehension

The study investigated the effect of RT on high achievers' reading comprehension performance. Table 4 presents the pre-test reading comprehension data of high achieving control and experimental groups.

Table 4: The Control and Experimental Group High Achiever's Pre-test Reading Comprehension Data

Groups	N	X	SD	d/f	t-value	p-value
Control group high achievers	28	17.79	2.630	56	.078	.938
Experimental group high achievers	30	17.73	2.477			

As in Table 4, the descriptive data pointed out that the high-performing experimental group students got 17.73, and those of the control group scored 17.79 in their reading comprehension. The independent samples ( $t = .078$ ,  $df = 56$ ,  $p = .938$  ( $>.05$ )) furthered that there was not a significant difference between the high-performing experimental and control group students' reading comprehension. The following table displays the post-test reading comprehension of the high achievers' control and experimental group students.

Table 5: The Control and Experimental Group High Achiever's Post-test Reading Comprehension Score

Groups	N	X	SD	SE	d/f	t-value	p-value
Control group	28	17.04	3.616	.683	56	-3.183	.002
Experimental group	30	19.80	2.987	.545			

As in table above, the descriptive data displayed that the high-performing experimental group achieved 19.80, and those of the control group, 17.04 in reading comprehension. The independent samples ( $t = -3.183$ ,  $df = 56$ ,  $p = .002$  ( $<.05$ )) also depicted that there was a significant difference in reading comprehension scores of the two groups favoring the experimental group indicating that the RT strategy improves the experimental high-performing students' reading comprehension.

In addition, with  $-2.089$  t-value, the effect size of the RT on the low achiever's reading comprehension was computed as  $.0684$ , which was medium with the interval of  $.06$  to  $.139$  implying that the RT could show optimal effect size on low achievers' reading comprehension. However, the eta square of RT on high achievers' reading comprehension is  $.1532$  which is large with  $.14$  and more.

#### 4. The Effect of Reciprocal Teaching on Students' Reading Perceived Self-efficacy

To see the impact of the RT on students' reading self-efficacy, the pre-test and post-test questionnaires were administered. Table 6 discloses the pre-test and post-test scores of the experimental and control group students.

Table 6: Independent Samples: t-test Statistics on the Control and Experimental Group Reading Self-efficacy Beliefs of the Pre and Post-tests Score

Test Type	Groups	N	X	SD	d/f	t-value	p-value
Pre-test	Control	57	3.6303	.50562	114	.041	.967
	Experimental	59	3.6266	.45841			
Post-test	Control	57	3.7270	.47077	114	-12.397	.000
	Experimental	59	4.5959	.28973			

As in the pre-test in Table 6, the descriptive data disclosed that the control and experimental groups got 3.630 and 3.627 respectively in the pre-test reading self-efficacy beliefs. The independent samples t test ( $t = .041$ ,  $df = 114$ ,  $p = .967$  ( $>.05$ )) also pointed out that there was not a significant difference between the experimental and the control group students' reading self-efficacy. Thus, one can infer that both groups were initially similar in reading self-efficacy beliefs.

Nonetheless, the descriptive data evidenced that the control group students scored 3.7270, and those of the experimental group gained 4.5959 in their reading self-efficacy post-test. The independent samples t test ( $t = -12.397$ ,  $df = 114$ ,  $p = .000$  ( $<.05$ )) showed that there was a significant difference between the experimental and the control group students' reading self-efficacy.

## Discussions

The finding of the study revealed that there was a significant difference in reading comprehension between the experimental and control groups favoring the experimental group. The difference suggests that the RT boosts the experimental group students' reading comprehension achievement. This result coincides with the empirical research reporting that reciprocal teaching has a meaningful impact on students' learning and reading comprehension in particular (Freihat, 2012; Pan, 2014; Ojo, 2015; Gomaa, 2015; Navaie, 2018). The study, thus, indicates that the explicit strategy application on the RT showed an increase on students' reading abilities. The finding supports the arguments of Lightbown et al. (1993) and Rodli and Prastyo (2017) showing that explicit instruction is more effective in EFL contexts where learners have less immersion in a language.

However, the result goes in contradiction to the argument by Krashen (1982) advocating that the implicit instruction is effective and provides a variety of exposure to the language classes. In addition, the finding is incongruent to the results by AL-Hilawani et al. (1993), Hancock's (2012), and Jones (2021). These studies reported the non-significant influence of RT on students' academic performance. Nevertheless, these studies looked having methodological limitations that seemed the reason why they did not report significant changes of the RT strategy on students' reading performance in reading lessons. For instance, in AL-Hilawani et al.'s (1993) inquiry, group members in RT strategy were homogeneous in their ability (low achievers only) in which one could not help another. In Hancock's (2012) work, the RT was applied in a whole-class context where students could not aid each other, and in that of Jones (2021) the

treatment was given in a virtual way in which students might not have interacted one another in groups. In this regard, scholars, Dew et al. (2021) explained that results of experimental inquires may be vulnerable to several factors like interventional duration, group formation and nature of interactions in an experiment.

The study also found that the experimental group low and high-performing students significantly out-performed those of the control group in reading comprehension. This discloses that the difference between the two groups was due to the intervention of RT that the experimental group received in reading lessons. This result seemed to contrast the idea of Arends (1997) contending that group tasks are usually beneficial for high achievers in the expense of the low achievers. However, the result of this study coincides to the findings documented in literature (Choo et al. 2011; Freihat, 2012; Gomaa, 2015; Ojo, 2015) reporting that RT could improve the low achievers' academic performance. Local inquires by Yoseph (2014) and Seid (2012) also affirmed that social learning strategies could advance the low achievers' learning. The study also found that the RT supplements the high-performing students' reading comprehension. In congruent to this result, Pan (2014) and Gomaa (2015) forwarded that reciprocal teaching could aid the high performing students to boost their critical thinking skills.

In addition, RT had .0684 effect size (medium) on the low achiever's reading comprehension, but it had .1532 effect size (large) on high achievers' reading comprehension. This entails that although RT brings improvements on low and high achievers' reading comprehension, the effect size was different; that was medium for low and large for high achievers. This suggests that the RT shows by far better changes on the high-performing students' reading comprehension achievement.

Furthermore, it was found that there was significant difference in reading perceived efficacy between the experimental and control groups in support of the experimental one. From this, it can be inferred that the reciprocal teaching increases students' reading self-efficacy beliefs in EFL reading classes. The finding goes in line with the literature evidencing that RT can have positive outcomes on learners' reading self-efficacy which in turn affects reading comprehension (Henk et al., 2012; Boakye, 2015; Unrau, et al., 2017; Mengistie et al., 2023).

## Conclusions

The study unveiled that there was a significant difference in reading comprehension scores between the experimental and control groups in support of the experimental group. This suggests that the reciprocal teaching (RT) strategy is indispensable strategy for learners to help each other in groups. Specific strategies such as predicting, questioning, clarifying and summarizing were of vital contributions to ease students' reading difficulties. From this, it can be concluded that reciprocal teaching can foster students' reading comprehension



performance. The study also found out that the low-and high-performing experimental group students out-performed those of the control group in reading comprehension. Accordingly, it is possible to say that RT enhances both the low-and high-performing students' reading comprehension. It was also found that there was significant difference in reading self-efficacy beliefs between the experimental and control groups in favor of the experimental one. In sum, it can be concluded that reciprocal teaching strategy improves students' reading self-efficacy beliefs.

## **Limitations**

The study placed students into two categories: high and low achievers for the convenience of data analysis due to their limited number. In other words, the study did not take the medium and the top achievers separately. This was because the benchmark to categorize students in such a manner was the mean value (those who scored above half were regarded as high achievers, and those who scored below half were low achievers). For this reason, the results from the high-performing students represented the results of the high and the medium achievers. Besides, the study was carried out in an intermediate level (grade nine); other levels such as elementary and tertiary levels were not regarded in the study. Hence, the results of the study may not be representative to other grade levels.

## **Recommendations**

The study found out that the reciprocal teaching strategy was advantageous for students to mediate ideas and construct meanings together. It enhanced students' reading comprehension and self-efficacy beliefs. Thus, the study implies that English language classes should focus not only on the content but also the strategies and methods of teaching the language. Material developers should also consider social learning strategies, in general, and the RT strategy, in particular, while preparing instructional materials of reading skills.

In addition, the findings imply that when students were aware of their roles and took certain accountabilities in group tasks they could responsibly behave in team activities and be successful. Hence, EFL teachers may clearly indicate the roles of students in group engagements instead of simply instructing learners to do group activities. Teachers should also be aware and help students to take their shares which can allow them to help each other in groups while implementing social learning strategies in reading classes. Moreover, EFL teachers should explicitly inform students when and how to implement reciprocal teaching strategies such as predicting, questioning, clarifying and summarizing in reading classes. That means, providing students the declarative, conditional and procedural knowledge on the implementation of reading strategies sounds helpful for students in reading classes. In the study, mixing up higher

and lower achievers in a group also helped students to scaffold each other. This implies that teachers had better merge heterogeneous abilities in team tasks to create more scaffolding and supportive instructional contexts for learners. Furthermore, the study could aid students to augment their communicative skills and cooperative working environments.

Besides, it is good if other studies could be carried out to investigate the effect of reciprocal teaching strategy on different educational levels considering low, medium and top achievers separately. Furthermore, researchers can examine the effectiveness of the RT strategy on the psychological variables such as reading motivation and self-regulation which can directly affect students' reading comprehension and language learning in general in EFL contexts. Lastly, investigation can be conducted to scrutinize the application of RT in different language skills in EFL contexts.

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## References

- Abiy Yigzaw, & Adelahe Fentie (2013). The impact of students' self-regulated language learning on their reading achievement in Ethiopian high schools: Grade 9 in focus. *Journal of Media and Communication Studies*, 5 (5), 44–51.
- Ahmadi, M. R., & Gilakjani, A. P. (2012). Reciprocal teaching strategies and their impacts on English reading comprehension. *Theory and Practice in Language Studies*, 2 (10), 2053-2060.
- Al-Hilawani, Y. A., Marchant, G. J., & Poteet, J. A. (1993). Implementing reciprocal teaching: Was it effective? *Paper presented at the Annual Meeting of the Midwest Association of Teachers of Educational Psychology*.
- Arends, R. I. (1997). *Classroom instruction and management*. New York: McGraw-Hill Companies Inc.
- Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215. <https://doi.org/10.1037/0033-295X.84.2.191>
- Birhanu Moges (2019). Practices and challenges of cooperative learning in selected college of Arsi University: As a motivational factor on enhancing students' learning. *Universal Journal of Psychology*, 7 (1), 1-17.
- Boakye, N. A.N.Y. (2015). The relationship between self-efficacy and reading proficiency of first-year students: An exploratory study. *Reading and Writing*, 6(1), 52- 9.
- Brown, H. D. (2001). *Teaching by principles: An interactive approach to language pedagogy*. Englewood Cliffs, New Jersey: Prentice Hall Regents.
- Brown, S. B. (2015). *The effects of reciprocal teaching on 3<sup>rd</sup> and 4<sup>th</sup> grade students' reading comprehension and vocabulary attainment* [Unpublished doctoral dissertation, University of Missouri-Kansas City].
- Carroll, J. M., & Fox, A. C. (2017). Reading self-efficacy predicts word reading but not comprehension in both girls and boys. *Frontiers in Psychology*, 7, 2056. doi: 10.3389/fpsyg.2016.02056.
- Chawwang, N. (2008). *An investigation of English reading problems of Thai 12th -grade students in Nakhonratchasima educational regions 1, 2, 3, and 7* (Unpublished masters' thesis, Srinakharinwirot University).
- Cheng, R. W., Lam, S., & Chan, J. C. (2008). When high achievers and low achievers work in the same group: The roles of group heterogeneity and processes in project-based learning. *British Journal of Educational Psychology*, 78, 205–221.
- Chesla, E. (2010). *Five hundred and one reading comprehension questions*. New York: Learning Express. <https://www.bhamcityschools.org/cms/lib/AL01001646/Centricity/Domain>
- Choo, T. O. L. Eng, T. K., & Ahmad, N. (2011). Effects of reciprocal teaching strategies on reading comprehension. *The Reading Matrix*, 11 (2), 140-149.

- Creswell, J. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research*. Thousand Oaks, CA: SAGE Publications.
- Davidson, J. (2015). *Improving reading comprehension through reciprocal teaching* (Unpublished masters' thesis, Northwest Missouri State University).
- Dew, T. P., Swanto, S., & Pan, V. (2021). The effectiveness of reciprocal teaching as reading comprehension intervention: A systematic review. *Journal of Nusantara Studies*, 6 (2), 156-184.
- Duke, N. D., Pearson, P. D., Strachan, S. L., Billman, A. K. (2011). Essential elements of fostering and teaching reading comprehension. In S. J. Samuels & A. Farstrup (Eds.). *What research has to say about reading instruction*, 4<sup>th</sup> edition (pp. 51-93). Newark, DE: International Reading Association.
- Dunne, M., Humphreys, S., Sebba, J.; Dyson, A; Gallannaugh, F., and Muijs, D. (2007). Effective teaching and learning for pupils in low attaining groups. Research Report DCSF-RR011.
- Freihat, S. (2012). The effect of the reciprocal teaching procedure (RTP) on enhancing EFL students' reading comprehension behavior in a university setting. *International Journal of Humanities and Social Science*, 2 (5), 279-291.
- Getnet Akalie, Negesse Gessese, & Amare Birhan (2021). Exploring the perception and practice of teaching reading skills in secondary schools in Ethiopia. *The Journal of Asia TEFL*, 18, 1, 355-363.
- Gomaa, O. M. K. (2015). The effect of reciprocal teaching intervention strategy on reading comprehension skills of 5th grade elementary school students with reading disabilities. *International Journal of Psycho-Educational Sciences*, 4 (2), 39-45.
- Henk, W. A., Marinak, B. A., & Melnick, S. A. (2012). Measuring the Reader Self-Perceptions of Adolescents. *Journal of Adolescent & Adult Literacy*, 56, 4, 311-320.
- Hancock, J. W. (2012). *The effect of reciprocal teaching plus across three content areas on reading comprehension in 7<sup>th</sup> and 8<sup>th</sup> grade students* [Unpublished doctoral dissertation, Walden University].
- Jones, S. (2019). *The effects of reciprocal teaching on reading comprehension in the virtual middle school English classroom* [Unpublished masters' thesis, St. Catherine University].
- Krashen, S. (1982). *Principles and practice in second language acquisition*. New York: Pergamon.
- Lightbown, P. M., Spada, N., & White, L. (1993). The role of instruction in second language acquisition. *Studies in Second Language Acquisition*, 15.
- Mackey, A., & Gass, S. M. (2005). *Second language research methodology and design*. London, Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Mebratu Mulatu (2015). The status, roles and challenges of teaching English Language in Ethiopia context: the case of selected primary and secondary schools in Hawassa

University Technology Village Area. *International Journal of Sociology of Education*, 4, 2, 182-196.

- Mekbib Alemu (2019). Improving secondary school students physics achievement using reciprocal peer tutoring: A multi-level quasi-experimental study. *EURASIA Journal of Mathematics, Science and Technology Education*, 16 (4), 1-14.
- Mengistie Shiferaw, Yoseph Mezegebu, & Getnet Gidey (2023). Effects of cohesion analysis-based instructions (CABI) on English as Foreign Language (EFL) students' reading comprehension and self-efficacy. *Ethiopian Renaissance Journal Social Science and Humanities*, 10(2), 53-72.
- Michit T/Mariam, Yifter Meless, & Mesafint Muchie (2019). The effect of reciprocal teaching procedure on EFL students' reading comprehension achievement. *IJRSSH*, 9 (2), 228-236.
- Mizumoto, A., (2012). Exploring the effects of self-efficacy on vocabulary learning strategies', *Studies in Self-Access Learning Journal*, 3(4), 423-437.
- Moneus, A. M. A. (2018). *The impact of reciprocal teaching for literature courses on fostering students' reading comprehension at Yemeni Universities* [Unpublished masters' thesis, University of Sana'a, Yemen].
- Navaie, L. A. (2018). The effects of reciprocal teaching on reading comprehension of Iranian EFL learners. *Advances in Language and Literary Studies*, 5 (4), 26-30.
- Niguse Desta. (2019). Effects of Integrated Reading-and-Writing Practice on Grade 11 EFL Learners' Performance and Self-Efficacy of Reading Comprehension and Summary Writing, with reference to Yemane Senior Secondary School. Unpublished Doctoral Thesis, Bahir Dar University: Bahir Dar.
- Ojo, G. M. (2015). *Reflective-reciprocal teaching strategy on student teachers' academic achievement and attitude* [Unpublished masters' thesis, University of South Africa].
- Pajares, F. (2006). Self-efficacy during childhood and adolescence: Implications for teachers and partners, in F. Pajares & T. Urden (eds.), *Self-efficacious beliefs of adolescents*, pp. 339- 367, Information Age Publishing, Greenwich.
- Pan, C. (2014). Effects of reciprocal instruction on EFL college students' English reading comprehension. *International Journal of English Language and Literature Studies*, 3 (3), 190-209.
- Rodli, M., & Prastyo, H. (2017). Applying reciprocal teaching method in teaching reading. *Studies in Linguistics and Literature*, 1 (2), 112-122.
- Shehzad, M. W., Alghorbany, A., Lashari, S. A., & Lashari, T. A. (2019). Self-efficacy sources and reading comprehension: The mediating role of reading self-efficacy beliefs. *The Southeast Asian Journal of English Language Studies*, 25(3): 90 - 105.
- Sied Mohammed (2012). *Effects of cooperative learning on reading comprehension achievement in EFL and social skills of grade 10 students* [Unpublished masters' thesis, Addis Ababa University].
- Soto et al. (2019). Reading comprehension and meta-cognition: The importance of inferential skills.

Cogent Education (2019), 6:1-20.

- Tadele Muche, Birhanu Simegn, & Kassie Shiferaw (2023). Self-efficacy and meta-cognitive strategy use in reading comprehension: EFL learners' perspectives. *The Asia-Pacific Education Researcher*, 33, 219-227.
- Tracey, D. H., & Morrow, M. L. (2006). *Lenses on reading: An introduction to theories and models*. London: The Guilford Press.
- Unrau, N. J.; Rueda, R., & Son, E. (2017). Can reading self-efficacy be modified? A meta-analysis of the impact of interventions on reading self-efficacy. *Review of Educational Research* 201X, Vol. XX, No. X, pp. 1-38 DOI: 10.3102/0034654317743199.
- Yenus Nurie (2018). Conceptualising reading to learn: Strategy instruction and EFL students' reading comprehension. *International Journal of Curriculum and Instruction*, 10(2) 93-117.
- Yoseph Mezgebu (2014). *An exploration of students' characteristics and their perceptions of cooperative and individualistic teaching approaches in EFL reading classroom* [Unpublished doctoral dissertation, Addis Ababa University].