ORIGINAL ARTICLE

Effects of Explicit Reading Strategy Instruction on Students' Reading Comprehension and Motivation: Grade 11 in Focus

***Adugnaw Abebe Yigzaw*[1] & *Birhanu Simegn Chanie*[2]**

Abstract

This study was conducted to examine the effects of explicit reading strategy instruction on students' reading comprehension, and motivation. Quasi-experimental research design was used. From six sections of students, two randomly selected intact classes were involved in the study. The two classes were randomly allocated as the experimental and the control group. The experimental group was taught reading strategies explicitly, but the control group was taught reading strategies implicitly as is presented in the syllabus. The intervention was given for 16 sessions, 40 minutes each session. Both quantitative and qualitative data were collected using comprehension tests, and an adapted reading motivation questionnaire. Independent samples t-test, McNemar's, test, Chi-square test, and content data analysis techniques were used. The results indicated that there was no significant difference between the groups in their reading comprehension achievement after the intervention, and the qualitative comprehension data indicated that both groups had gaps in lower-level reading skills. However, the experimental group benefited a bit more in the quantitative self-reported reading motivation questionnaire though the qualitative reading motivation data indicated that the groups had similar level of reading motivation. It is concluded that explicit reading strategy instruction does not help students improve their reading comprehension and motivation unless students are versed with lower-level reading skills, and intrinsic motivation.

Keywords: Explicit reading strategy instruction, reading comprehension, reading motivation, implicit

Introduction

Reading proficiency potentially determines students' understanding of complex academic resources. It provides access to other skills and knowledge, facilitates life-long learning, and opens doors for developing comprehension (Child, 2012) skills. In other words, it is the foundation of all other structured scholarly learning (Schiefele & Schaffner, 2016). As students advance in their studies, they need to be able to rely on their ability to

1 *Department of English Language and Literature, University of Gondar, Ethiopia*
Email: adugnaw08@gmail.com

2 *Associate Professor, Department of English Language and Literature, Bahir Dar University, Ethiopia, Email:* brshgnsh@gmail.com

DOI: https://dx.doi.org/10.4314/erjssh.v11i1.8

understand and use written information independently (Alfassi, 2010). Despite its importance, reading comprehension is a complex task that draws on a range of skills and processes (McNamara, 2007). This means that a reader needs to be equipped with both lower-and higher-level reading skills/processes (Grabe & Stoller, 2011; Pressley, 2000) to comprehend reading texts effectively. This is related to the idea that reading comprehension is the process of simultaneously extracting and constructing meaning through interaction and involvement with written language (Snow, 2002). The terms extraction and construction refer to meanings that reside both in the text and in the reader (Dole, Duffy, Roehler, & Pearson 1991) for effective comprehension.

The essentiality and complexity of reading comprehension in this information age led researchers to search for better ways of reading strategy instruction. Reading researchers have paid much attention to reading comprehension strategy instruction (Duke & Pearson, 2002; Pearson & Dole, 1988). However, the Ethiopian EFL curriculum for grade 11 students encourages product-focused reading comprehension as opposed to focus on strategy training (Tekle, 2016). Following this, secondary school teachers in Ethiopia still seem unsure about how to teach reading comprehension strategies, and they often test rather than teach comprehension by concentrating on asking questions about text content after reading (Amare, 2021; Yenus, 2017). Thus, reading comprehension instruction in Ethiopian secondary school classrooms often involves letting students read, ask them questions after reading in which teachers initiate a discussion, students respond, and teachers evaluate their responses (Tekle, 2016; Yenus, 2017). These activities are labeled implicit reading comprehension strategy instruction (Pearson & Cervetti, 2017). In grade 11 EFL student textbook, comprehension activities which require students to use reading strategies without making students consciously aware of the strategy itself are developed. For example, students are required to infer meaning from texts without being taught the essence of inferring by explanation and modeling (MoE, 2011). Durkin (1979) criticized this method of instruction because it does not show students how to use the reading strategy, but just asked students to use them.

In contrast, explicit reading strategy instruction involves giving students the declarative, procedural, and conditional knowledge of reading strategies the students need to learn from texts (Israel & Duffy, 2009; Paris, Lipson, & Wixson, 1983). Students are conscious of the reading strategies they apply (Israel & Duffy, 2009) in this type of instruction. Krashen (1982), and Littlewood (1981) criticized this way of instruction saying, “Deliberate [or conscious] cognitive processing slows down automaticity”. That seems why Grabe and Stoller (2011) state that most reading instructions, including EFL reading instruction, still do not focus on explicit reading strategy instruction.

Reading comprehension strategies are defined as “Mental activities selected by the reader to acquire, organize, elaborate information, reflect on and guide their own text comprehension” (Andreassen & Braten, 2010). This is because readers are expected to

use strategies in order to reduce a perceived discrepancy between a desired outcome and their current state of understanding, comprehension strategies are also regarded as deliberate processes used to construct meaning from text (Afflerbach, Paris, & Pearson, 2008; Andreassen & Braten, 2010). Higher-level reading strategies such as predicting upcoming text content, generating and answering questions, constructing self-explanations, capturing the gist of the text, and monitoring comprehension seem to promote good reading comprehension (Andreassen & Braten, 2010; McNamara, 2007). On the other hand, the idea that reading strategies are deliberate processes (Andreassen & Braten, 2010) contradicts with implicit reading strategy instruction since in implicit instruction, students are not conscious of the reading strategies they use.

In addition to the type of instruction, success in language learning is attributed to motivation (Guthrie & Wigfield, 2000), and language learning strategies (Alatis, 1993; Oxford, 1990). Thus, language learning strategies and motivation are factors that support students' language development (Dornyei, 2005), and their possession of strategies. Therefore, language learning strategies and the motivation for using them are likely to be mutually enhancing (Guthrie & Wigfield, 2000). That is the enhancement of motivation for language learning enhances the application of language learning strategies or vis-versa. In support of this, Johnston (1985) stated that strategy use can help to motivate students and make them feel in control of their learning. Among the factors which influence students' comprehension positively, motivation is considered to be the most important. Learners who possess higher levels of motivation are more likely to become higher achievers of learning a second language (Gardner, 1985) since motivation determines why individuals do (or do not) choose to do different activities (Wigfield & Guthrie, 1997). This implies that students do not read unless they are motivated to do so.

Linking reading strategy instruction and motivation, the National Reading Panel (2000) concluded that explicit comprehension strategy instruction can effectively motivate and teach readers to learn and to use reading comprehension strategies which benefit the reader. Explicit instruction of reading strategies increases reading comprehension. When these strategies are acquired, students become more independent (The National Reading Panel, 2000), and more motivated readers (Grenfell & Harris, 1999; Guthrie & Wigfield, 2000) which leads to increase their reading comprehension (Wigfield & Guthrie, 1997).
However, reading strategy instruction brought about controversial findings in reading comprehension. Several researchers (Barnett 1988a; Piyanukool, 2001; Relton, 2017) had found that there was no statistically significant difference between implicitly and explicitly reading strategy instructed groups in light of their comprehension since comprehension needs longer intervention time. That is why Tekle (2016) suggested that studies which aim to determine the extent to which reading strategy instructions are helping students to improve text comprehension [and reading motivation] should be conducted, especially in EFL settings like Ethiopia.

Likewise, a number of other researchers investigated the effects of explicit reading strategy instruction on students' reading comprehension, and motivation. However, they found inconsistent findings about its effect on students' reading comprehension and motivation. The researchers (for example, Adler, 2015; Andreassen and Braten, 2010; Cekiso, 2007; Nunan, 1997; Relton, 2017; Wang, 2009) conducted strategy-based reading instruction and their conclusions were inconsistent. For instance, Andreassen & Braten's (2010) concluded that explicit reading strategy instruction has positive effects on comprehension (with partial $\eta 2 = .11$), whereas their findings showed that there was no change on reading motivation which contradicts with Wang's (2009) finding that there was significant change in reading motivation. Adler (2015) and Relton's (2017) findings in light of reading comprehension converged. They found that the instruction did not bring about significant improvement in reading comprehension.

As far as the researcher has known, no such study has been conducted locally in secondary schools. Three local studies on the effects of reading strategy instruction on comprehension in elementary (Dawit, 2014) and university level (Alene, 2021; Yenus, 2018) respectively had inconsistent findings. Alene (2021) and Dawit (2014) concluded that explicit reading strategy instruction was effective in enhancing students' reading comprehension, whereas Yenus (2018) found that there was no significant difference between the implicit and explicit reading strategy instructional groups in light of their reading comprehension. Thus, the question "Is reading strategy instruction better delivered explicitly or implicitly in Ethiopian secondary schools to improve comprehension and motivation?" remains unanswered.

Due to lack of empirical evidences to what extent consciousness about reading strategies enhance students' reading comprehension and motivation, this study investigated the effects of explicit reading strategy instruction on students' reading comprehension, and motivation at Taytu General Secondary school, Debretabor town, Amhara region, Ethiopia. More specifically, this research was intended to:

1. Examine the effects of explicit instruction of reading strategies on students' reading comprehension achievement.
2. Investigate the effects of explicit instruction of reading strategies on students' reading motivation.

Research Hypotheses

$H_{0:}$ There is no statistically significant difference in reading comprehension between the groups which are instructed reading strategies implicitly and explicitly.

$H_{a:}$ There is statistically significant difference in reading comprehension between the groups which are instructed reading strategies implicitly and explicitly.

H_o: There is no statistically significant difference in reading motivation between the groups which are instructed reading strategies implicitly and explicitly.

$H_{a:}$ There is statistically significant difference in reading motivation between the groups which are instructed reading strategies implicitly and explicitly.

Methodology

Theoretical Framework of the Study

The theory of constructivism maintains that learning is built from experience and connects personally to the learner (Collum, 2012; Powell & Kalina, 2009). However, the teacher is still expected to guide the instruction and learning (Collum, 2012). Constructivism used in the classroom setting is divided into two major forms. According to Collum (2012), "In cognitive constructivism, ideas are constructed in individuals through a personal process, as opposed to social constructivism where ideas are constructed through interaction with the teacher and other students." This study is primarily built on theories of cognitive and social constructivism in combination since reading is both private and social. Individual and collaborative reading are equally important. Both theories focus on the learning of a student, whether the emphasis is placed on the individual's personal learning or in a social context. In the same way, both theories also acknowledge the importance of the teacher's role (Collum, 2012).

Thus, this study was based on pragmatism. Quasi-experimental research design was applied. Moreover, both quantitative and qualitative data were collected to measure the effects of explicit reading strategy instruction on students' reading comprehension achievement and motivation.

Participants and Sampling Techniques

This study was conducted at Taytu General Secondary school in Debretabor town, Amhara Region, Ethiopia. Mixed sampling designs (Patton, 2015) were used. The school was selected purposefully for its easy accessibility to the researcher. Among six grade 11 sections in the school, two of them were taken randomly and were assigned as experimental and control groups randomly. A total of 91 students were enrolled in the two sections in 2022 academic year. However, 39 and 37 students from the experimental group and the control group respectively took all the pre-post-quantitative measures. Thus, analysis and discussion were based on the data from these students. The rest were absent when the pre- and post-intervention measures were administered.

For the qualitative data collection, nested sampling design (Onwuegbuzie and Collins, 2007) was applied. Accordingly, two students from each group were recruited. That is a total of four students were recruited for the qualitative data collection based on Riazi's (2016) recommendation that a small sample of three to five participants can be selected for qualitative data collection. The pre-intervention comprehension test score was used to recruit the participants for the qualitative data. The students were divided into two strata; students who scored 50% and above were categorized as one comprehension

level and those who scored below 50% as another homogeneous group (Riazi, 2016) because the minimum threshold competency level is usually 50% (Chanyalew & Abiy, 2015b) in Ethiopian schools. The students in each section were divided into strata of their comprehension level. One student was selected purposefully from each stratum as qualitative data source. Therefore, stratified purposeful sampling (Shaheen, 2019) techniques were applied to represent all the students from the different comprehension levels. In other words, one student from each comprehension achievement level was taken purposefully for the qualitative measures so that students from the two strata had equal chance of being represented, and, the qualitative data saturation from each comprehension strata were assured.

Data Collecting Instruments

The instruments employed in this study were reading comprehension tests, and reading motivation questionnaire. Pre-and post-intervention measures were administrated to the groups. The data collection was completed by the end of May, 2022.

Reading Comprehension Achievement Tests

There are no standardized tests that could be used to measure reading comprehension achievement of grade 11 students in Ethiopia. Hence, taking two passages, the researcher developed two parallel comprehension tests which were administered as pre-test and post-test. Each test contained 24 multiple-choice, and 6 semi-structured questions. Pearson correlation coefficient between the two forms of the reading comprehension tests was found to be $r = .805$, $p = .000$, which indicated a high reliability between the two versions of the test. Thus, the two parallel comprehension tests were used as pre-and post-tests to avoid practice effect. Difficulty level of the passages was measured using Gunning Fog Index Formula, and they were found to be 9.292 and 9.458, which is appropriate for Ethiopian grade 11 students. This was assured by evaluation of the passages and the corresponding test items by two grade 11 EFL teachers in the target school. The tests were split-halved to measure their reliability using Cronbach's coefficient alpha for the two groups. It was found that for the split-halved pre-test $\alpha = .784$, and post-test $\alpha = .802$ for the control group, and for the split-halved pre-test $\alpha = .788$, and post-test $\alpha = .831$ for the experimental group. Dornie (2007) asserts, "If two tests have a correlation coefficient of .6, one can say that they measure the same thing." Thus, the split-halved tests have acceptable correlation. The comprehension tests were prediction, clarifying words and/ phrases, question generating, summary, inference, and evaluation questions based on the reading passages.

In addition to the multiple-choice comprehension tests, six semi-structured comprehension tasks were prepared from the corresponding passages of the pre- and post-tests to collect

qualitative data about students' level of comprehension. The questions "Have you found any idea that has not been stated explicitly in the passage? Which one is it? Are the details in each paragraph relevant to the respective main point?" are examples among the semi-structured comprehension test items.

Reading Motivation Questionnaire

Both quantitative and qualitative data can be collected through a questionnaire (Heigham, 2009; Riazi, 2016) before and after interventions to measure changes in participants' self-reports (Morano, 2015). The reading motivation questionnaire (RMQ) developed by Wigfield and Guthrie (1997) was adapted for this study. According to Wigfield and Guthrie (1997), the reading motivation questionnaire is a student rated assessment of the extent to which each student is motivated to read. These authors developed the RMQ by grouping items into 11 constructs of reading motivation which aligned with motivational theory. The authors divided reading motivation into the three categories which entail a total of 11 sub-components: Competence and reading efficacy with subcomponents (1) reading efficacy (2) reading challenge and (3) reading work avoidance. Achievement values and goals entails intrinsic and extrinsic motivation: Intrinsic motivation with the subcomponents (4) reading curiosity (5) reading involvement and (6) importance of reading. Extrinsic motivation has subcomponents: (7) competition in reading (8) reading recognition and (9) reading for grades. Social aspects of reading entails (10) social reasons for reading and (11) reading compliance. The RMQ in this study consisted of 46 closed-ended, and 14 semi-structured items, which were used to collect quantitative and qualitative data respectively. The QRM items were prepared in two versions: English and Amharic, and they were administered two times as pre-post measures.

As to reliability, Wigfield and Guthrie (1997) reported that they avoided items that lowered the total inter-item correlation. The closed-ended items in this study were found to have alpha coefficient of .894, suggesting that the items have high internal consistency.

Qualitative data were collected using the semi-structured reading motivation questionnaire (RMQ) items developed by the researcher in line with the 11 constructs of reading motivation. The semi-structured RMQ was developed to give students freedom to express their degree of motivation. The qualitative data were used to triangulate and enrich (Combs and Onwuegbuzie, 2010) the quantitative data.

Procedures of the Study

The first step of the study was selecting the two groups of participants randomly. The groups were assigned as experimental and control group randomly as well. Secondly, pre-intervention measures were administered to assure whether the two groups were

homogeneous. Then, the intervention lasted for about 4 months with a total of 16 sessions, and 40 minutes each session. The time schedule for the reading section in the current grade 11 English syllabus is 16 sessions per semester; so the intervention was done in accordance with the syllabus. In other words, the recommended contact hours per semester for the instruction of reading in grade 11 is 16 sessions (MoE, 2011).

In order to decide the strategies that would be taught in this study, some criteria were employed. Initially, a search was done to find quasi-experimental studies which were published between 1980s -2020 wherein selected reading strategies were taught in each study. Hence, a total of 12 quasi-experimental studies were reviewed. Secondly, strategies which had been most frequently studied were distinguished. As a result, only strategies that had been repeatedly studied were maintained. Strategies that had been studied at least three times were selected for this study. A total of six reading strategies were selected for intervention this way.

The students who were assigned as experimental group were taught the selected reading strategies (that is predicting, clarifying, questioning, summarizing, inferring, and evaluating) explicitly. These reading strategies were selected after reviewing the 12 studies which are related to this study. The six most repeatedly studied reading strategies which are also considered inevitable while reading, were selected for this study. The passages and comprehension tasks in the grade 11 student textbook were used as they were for the intervention. When the textbook lacked a task on one or more of the selected strategies, the researcher added the task to the pre-exiting comprehension exercises just before an instructional reading session started. On the other hand, the students in the control group were taught the same reading strategies implicitly as it is presented in the syllabus. More specifically, the control group students followed the procedures that are conventionally used: activating background knowledge, reading the text silently, answering the specified reading comprehension questions first individually and then in pairs/groups, and finally listening to the teacher's explanation and/or feedback (Abebe, 2012; Abiy, 2005). That is, the control group followed the conventional instructional routine, which is void of reading strategy explanation, teacher modeling of the strategy and guided practice (Nunan, 2015; Pearson & Dole, 1988).

The explicit reading strategies instruction conformed to Duke and Pearson's (2002) model of explicit reading strategy instruction: explanation of the strategies (what the strategy is, how to apply it, and why to apply it), teacher and/or student modeling, teacher guided practice and collaborative practice using the selected reading strategies; then, the teacher gradually released responsibility so that the participants used the strategies independently. The strategy training for the experimental group was supported by an explicit reading strategy training manual. After about 4 months, the post-intervention measures were administered. Finally, both quantitative and qualitative data were analyzed and interpreted.

Techniques of Data Analyses and Interpretation

To determine the inter-group variations in comprehension, the quantitative data from the comprehension tests were subjected to an independent samples t-test analysis. To assure if the groups' levels of reading motivation differed from each other, McNemar's and Chi-square tests were performed on the quantitative reading motivation measure. The Statistical Package for Social Sciences (SPSS), version 23 for Windows, was used to do this. The threshold for statistical significance was established to be $p \leq .05$

The data from the semi-structured comprehension and reading motivation measures were analyzed qualitatively. For example, the response transcripts for the semi-structured comprehension tasks were coded using the following criteria:

1. Deficiency of higher-level reading strategies: highlights parts in which students' deficiency of comprehension is evident from their responses.
2. Inability to understand question: indicate responses in which students are not able to answer questions correctly since the students do not understand the questions.
3. Text Consultation: this indicates that the students use parts of the text they have remembered in place of consulting the text to answer the questions.

4. Lower-Level Reading Strategies: indicate response transcripts in which lack of comprehension is revealed because of students' deficiency in lower-level reading skills.

To check the coding reliability of the response transcripts for the semi-structured comprehension tasks, the coded data was exchanged with a colleague to assure matching codes. The intercoder agreement measured in Cohen's Kappa was $k = .71$, which is considered to be large (Viera and Garrett, 2005).

The data from the semi-structured reading motivation questionnaire response transcripts were also analyzed qualitatively. The response transcripts were coded in accordance with the 11 dimensions of reading motivation. To check the coding reliability of the response transcripts, intercoder agreement was assured. A large inter-coder agreement ($k = .64$) was found (Viera and Garrett, 2005).

Ethical Considerations

A cooperation letter was given to the researcher from Department of English Language and Literature so that it was shown to the directors of the target school. The purpose, and procedures of the study were explained to the target school directors. Then, the research project was granted permission. Additionally, the purpose, and procedures of the study were explained to the participant students. The researcher made clear to the participants that their participation in the study would not have any risk. The participants were informed that participation in the study was risk-free. They were also informed that the

data they provided had to be kept with great confidentiality and used only for the purpose of the study. Finally, the participants signed a consent form.

Data Analyses, Results and Discussion

This study was intended to investigate the effects of reading strategy instruction on students' reading comprehension and motivation. It balanced the statistical findings with the qualitative explanations of how explicit reading strategy instruction affected students' reading comprehension and motivation. Thus, conclusions were made by integrating the results from the quantitative and qualitative data analysis.

The Quantitative Data from the Pre-and Post-Intervention Reading Comprehension Tests

The table below indicates the descriptive and inferential statistics of the reading comprehension test scores of the two groups before and after the intervention

Comprehension tests	Groups	N	Mean	SD	Statistical Technique	Sig (2-tailed	Effect size
Pre-test	Control	38	7.58	2.965	Independent samples t-test	.698	$\eta 2 = .002$
	Experimental	39	7.82	2.470			
Post-test	Control	41	7.32	2.697	Independent samples t-test	.081	$\eta 2 = .038$
	Experimental	40	8.33	2.433			

Table 1: Statistics of the groups on the pre-and post-reading comprehension test scores

As table 1 shows, mean and standard deviation score of the control group and experimental group were M = 7.58 (SD = 2.965) and M = 7.82 (SD = 2.470) respectively, with a mean difference of 0 .24 between the groups in reading comprehension before the intervention. The independent samples t-test result, (t[75] = -0.389 , p = .698) confirmed that there was non-significant statistical difference between the two groups' reading comprehension achievement before the intervention as can be seen from table 1. This means that the groups were homogeneous before the intervention in light of their reading comprehension level. Likewise, after the intervention, the control group scored a mean of 7.32 (SD = 2.697) and the experimental group scored a mean of 8.33 (SD = 2.433), with a mean difference of 1.01 between them. To check if this mean difference in reading comprehension was significant, independent samples t-test was run, and the result, (t[79] = -1.765, p = .081, $\eta 2 = .038$), showed that there was no significant difference between the groups in light of their reading comprehension level after the intervention, and the magnitude of the difference ($\eta 2 = .038$) was negligible. Therefore, based on the results of the analysis, the null hypothesis was accepted. That is explicit instruction of reading strategies did not

significantly improve the reading comprehension achievement of grade 11 students.
Paired samples t-test was also run to check within group difference in reading comprehension. According to the paired samples t-test analysis, it was found that there was no statistically significant difference between the pretest and posttest scores (t[37] = -.252, p = .802) within the control group and (t[38] = -1.251, p = .219) within the experimental group. The results indicated that both of the groups' reading comprehension achievement did not increase.

One possible reason for the non-significant difference between the groups in their comprehension may be the short intervention time duration. With regard to intervention time duration for comprehension improvement to arise, Alatis (1993) suggested 6 months up to a year-long intervention so that the reading strategies to comprehend texts are automatized. Duke, Pearson, Stephanie, Strachan, and Billman (2011) even recommended two consecutive years for effective reading comprehension instruction.

The comprehension result in this study was in line with the comprehension result in Yenus's (2018) study. However, the reading comprehension result in this study contradicted with the results of previous local studies such as Alene (2021), and Dawit (2014). The convergence and divergence of results in the different studies implies that reading strategy instruction is still a controversial issue. One of the possible reasons for the contradicting results is that the strategies selected for intervention in each study were different. The other possible reason would be the difference in intervention time duration. Still another possible reason for the inconsistent results among the studies would be the differing reading strategy instructional models employed in each study.

Qualitative Findings: Differences in Level of Comprehension

To supplement the quantitative comprehension results, the response transcripts for the open-ended comprehension tasks before and after the intervention were analyzed and discussed qualitatively. Note that the participants from whom qualitative data were collected were represented by S1, S2, S3, and S4.
Most of the participants did not seem to understand both the reading text and the tasks to be done after reading it. This is evidenced below in their response transcripts for the semi-structured comprehension tasks. Typical response excerpts from S1 and S3 are presented below.

S1, who was above 50% achiever from the experimental group, transcribed his response to the first semi-structured comprehension question as *"We (parents) should advised childrens to rede books for their future.life. If we advised childrens to rede books and by accepting our advised they will be rede d/t books in that time we will surprised."*
As is evidenced in the transcript, S1's responses could not be understood by readers.

The reason evident from the transcripts was that S1 was not able to master the lower-level reading skills such as orthography, and syntax. The lower-level reading skills are prerequisites, at least partially, to comprehend reading texts. That is why Griffiths (2008) said, "Using schematic and contextual information (top-down processing) together with linguistic information (bottom-up processing) are strategies good language learners employ in order to arrive at meaning" (p. 213). This means that both higher and lower levels of reading processes are important to comprehend texts.

S3, who scored above 50% in the pre-test from the control group students, transcribed his response to the fist semi-structured comprehension question as "*Read books children"*. This was his response to the question which required him to express if his content prediction and meaning guessing were correct. S3's response indicated that his response deviated from what was required of him to do. Even, the syntax of his response transcript indicated that he was not aware of verbs and nouns and their corresponding positions in sentences. A student who has not mastered lower-level reading skills is not expected to comprehend texts that need employing higher-level reading processes. The analysis and discussion of the S2 and S4's transcripts were left since their responses were more or less the same as that of S1 and S3.

As evidenced from the qualitative data, the participants were not equipped enough with the lower-level reading skills let alone comprehending reading texts that require both lower-level and higher-level reading skills. Lower-level reading skills are the pre-requisites for applying higher-level reading skills. With regard to this, McNamara (2007) explained that components of reading processes are equally essential to comprehend a text effectively because reading comprehension processes are highly interdependent.

The Quantitative Data from Reading Motivation Questionnaire (RMQ)

As to the RMQ, six-point Likert scale responses were used to answer each question. These data are categorical in nature (Field, 2018). Thus, in this study, the differences in the percentages across the groups were compared using Chi-square test. Percentages in the pre-post RMQ within each group were also compared using McNemar's test (Aguilera, 2014; Pallant, 2016).

The Chi-square test analysis for the first seven items, out of the 46 RMQ items, is presented in table 2 below as examples. The frequencies of the responses to both the pre- and post-intervention RMQ were computed so as to compare the students' level of reading motivation between the groups. The rating scale consisted of six levels. To simplify and improve the readability of the data, the responses were merged into two responses. The responses 'never true of me, rarely true of me' and 'cannot decide' were merged to distinguish students who were not motivated. Likewise, the responses 'sometimes, usually' and 'always true of me' were merged to distinguish students who were motivated.

Table 2: The quantitative RMQ responses in the pre-and post-intervention within and between the groups

RMQ Item	Group	% of motivated students		McNemar test	Chi-square tests	
		Pre-test	Post-test		Pre-test	Post-test
1.	Control	78	78	1.000	2.77	4.10
	Experimental	61	86	.001	.000	.042
2.	Control	40	37	.200	.194	.083
	Experimental	53	67	.408	.001	.497
3.	Control	76	42	.091	..001	.000
	Experimental	58	80	.041	.001	.050
4.	Control	58	37	.201	.330	.000
	Experimental	39	67	.062	.171	.497
5.	Control	63	53	.349	.105	.077
	Experimental	61	74	.050	.000	.048
6.	Control	71	56	.126	.009	.157
	Experimental	58	85	.006	.000	.017
7.	Control	74	58	113	.004	.077
	Experimental	28	70	.006	.916	.734

The interpretation of table 2 is that in item 1, the percentage of students in the control group who claimed to have been motivated was 78% (p = 1.000) in both the pre- and post-intervention RMQ. Nevertheless, students in the experimental group claimed that they were more motivated in the post-RMQ (86%) than in the pre-RMQ (61%), and this improvement was statistically significant (p = .001). The difference between the groups' percentage of motivated students was statistically significant in the pre-RMQ (78% versus 61%, p=.000) in which the experimental group scored less than the control group. In the post-RMQ (78% versus. 86%, p = .042), the experimental group scored greater.

The McNemar test result from table 2 indicated significant improvement in 19 reading motivation items for the students in the experimental group: items 1, 3, 5, 6, 12, 18, 20, 21, 22, 24, 26, 27, 28, 35, 37, 38, 40, 44, and 46. Nevertheless, the items for which the improvements were significant in the control group were 7 in number: items 20, 24, 26, 28, 40, 41, and 44. The items for which the improvements between the pre-RMQ and the post-RMQ were statistically significant in both groups were items 20, 24, 26, 28, 40, and 44, all of which are dimensions of extrinsic motivation such as reading for recognition, grades, competition, and compliance.

After the intervention, significant improvement was observed favoring more items for the experimental group. Nevertheless, pre-exiting differences between the groups had to be examined. Just four items (items 21, 25, 32, and 41) in the pre-RMQ Chi-square test results revealed significant difference between the groups; the control group claimed more motivated. As a result, pre-existing variances are unable to account for the larger reading motivation increases revealed in the experimental group in comparison to the control group after the intervention. In other words, it could be said that explicit reading strategy instruction affected students' reading motivation positively. Based on the analysis, the null hypothesis was rejected and the alternative hypothesis was accepted.

Qualitative Findings: Differences in Level of Reading Motivation

Using content analysis (Cohen, Manion, & Morrison, 2018), the qualitative data are presented in a table (Creswell, 2009). The response transcripts for the open-ended reading motivation questions before and after the intervention were analyzed and discussed qualitatively. The students' responses to each reading motivation dimension (RMD) are summarized in table 3.

Table 3: Summary of Students' Reading Motivation Level Both before and after Intervention

Reading Motivation Dimensions (RMDs)	Pre-intervention				Post-intervention			
	Experimental Group		Control Group		Experimental Group		Control Group	
	S1	S2	S3	S4	S1	S2	S3	S4
Reading efficacy	X	X	X	X	X	X	X	X
Challenge	X	X	X	X	X	X	X	X
Curiosity	X	X	X	X	X	X	X	X
Involvement	X	X	X	X	X	X	X	X
Importance	√	√	√	√	√	√	√	√
Grade	√	√	√	√	√	√	√	√
Recognition	√	X	X	X	√	X	X	X
Competition	X	X	X	X	X	X	X	X
Social	√	√	√	√	√	√	√	√
Compliance	√	√	√	√	√	√	√	√
Reading Avoidance	X	√	X	√	X	√	X	√

Note that, in table 3, the tick mark (√) indicates the specified RMD works for the participant while the cross mark (X) indicates the specified RMD does not work for the participant. Moreover, S1, S2, S3, and S4 represent the participants from whom qualitative data were collected.

As can be seen from table 3, all the participants, both before and after the intervention, stated that reading was important, and that they liked reading. On the contrary, they asserted that they were not self-efficacious in reading, and none of them preferred challenging texts. All of them said they had never been involved when reading. They reported that they were eager to improve their grades; they read for grades. None of them said that they needed recognition from someone when they read. One participant asserted that she read for competition, to compete with her peers. All of them said that they would ask teachers and peers while and just after reading when they faced difficulties though none of them asserted that they had never exchanged reading materials with peers. All the participants said that they used to try to meet others' expectation. In other words, they said that they would read texts and would do comprehension tasks for meeting expectations. Two of the participants reported that they would not do reading tasks unless the teacher explained what and how to do the tasks.

Therefore, the findings from both the pre-and post-intervention semi-structured reading motivation data were that no participant believed himself/herself to have been efficacious in reading. However, Baker and Wigfield (1999) found that students who lack a sense of efficacy likely wish to avoid challenging reading activities. That seems why no participant in the qualitative data wanted to read challenging texts in general. Challenge here refers to the willingness to take on a perceived difficult reading material. When individuals believe they are successful at an activity they are more likely to engage in it (Baker & Wigfield, 1999). In other words, challenge is students' sense of risk-taking.

Moreover, none of the participants was intrinsically motivated. All the participants reported that they had never been involved in reading materials. On the contrary, Grabe and Stoller (2011) stated, "Intrinsic motivation is the most influential factor in reading motivation." Still, what is contradictory from the participants' response was that all of them reported they were eager to be independent readers. And they said that reading was more important compared to the other language skills. In general, extrinsic motivation (grades, recognition, social, competition, and compliance) forced the participants to read. Their goals for reading were not intrinsically (challenge, curiosity and involvement) motivated.

The participants from the two groups were compared based on their own report for the open-ended reading motivation items after the intervention. From the qualitative data analysis, it was found that the participants from both groups believed that they were not efficacious in reading. Moreover, all the participants were found that they were not intrinsically motivated in reading. In other words, it was evident from the analysis that all the participants from both groups were extrinsically motivated. The similarity between the

groups in light of their reading motivation qualitative data results contradicted with their reading motivation quantitative data results after the intervention

The result from the quantitative reading motivation questionnaire (RMQ) data analysis implied that the participants' level of extrinsic reading motivation could be improved within a relatively shorter intervention time duration of explicit reading strategy instruction, unlike the intervention time duration needed for comprehension improvement, self-efficacy, and intrinsic reading motivation. From the qualitative RMQ data analysis, it was found that the participants did not believe they were self-efficacious in reading, and they were not intrinsically motivated to read. In contradiction to this finding, Wigfield and Guthrie (1997) found that intrinsic motivation predicted amount and breadth of reading more strongly than did extrinsic motivation.

Conclusion

The short intervention time duration might not have enabled the participants to improve their comprehension. Moreover, the participants should have possessed the overall reading comprehension abilities required at their grade levels. In connection with this, this study found that there existed students in both the experimental and control groups who had deficiency in their lower-level reading skills. This might have led the participants not to improve their comprehension whichever reading instructional approach was applied. Students with deficient lower-level reading skills have a lower chance to develop reading abilities and habits (McNamara, 2007; Snow, 2002). Thus, the findings of this study imply that there is more need for reading comprehension intervention in secondary schools so that one can assure whether explicit reading strategy instruction has a promising result. The finding from the quantitative RMQ data analysis showed that explicit reading strategy instruction improved the experimental group's overall reading motivation level. Thus, the conclusion is that explicit reading strategy instruction was more effective than the conventional reading strategy instructional approach in improving reading motivation. Despite this, the findings from the qualitative RMQ data analysis indicated that the participants in both groups did not possess optimum level of self-efficacy, and intrinsic reading motivation. Due to this and their low level of risk-taking/challenge facing, the participants did not use to read challenging texts.

Thus, the contradiction of the findings between quantitative and qualitative RMQ indicate that the level of the participants' extrinsic motivation outweighed their intrinsic motivation and self-efficacy in combination. The conclusion is that the participants' reading motivation was predominantly extrinsic though Grabe and Stoller (2011) state that intrinsic motivation, self-efficacy and expectations for success predict both amount of reading and reading comprehension development. The fact that the participants were predominantly extrinsically motivated might also have caused their comprehension not to be improved despite whichever reading strategy instruction was applied.

Recommendations

This study appeared to support that explicit reading strategy instruction does not bring about significant comprehension difference. However, , before the instruction of higher-level reading strategies, students' gaps of lower-level reading skills should be filled with remedial classes because both lower and higher-level reading skills in combination determine students' comprehension achievement. Moreover, explicit reading strategy instruction should be tried out with longer intervention time duration to prove if it improves students' reading comprehension achievement, reading self-efficacy, and intrinsic reading motivation. Achievement in reading is a byproduct of students' engagement/curiosity. To increase students' intrinsic reading motivation, teachers should give students some degree of choice in reading materials whenever possible (Grabe & Stoller, 2011). Future research can also focus on investigating the effects of explicit reading strategy instruction on students' reading strategy use. Another possible focus of future research could be to verify if more intervention time duration of explicit reading strategy instruction is needed to determine whether reading motivation could stay longer.

Acknowledgement

The authors would like to express their gratitude to the grade 11 students who were involved in this study for their cooperation and patience during the study. Our thanks and appreciation extends to all researchers and authors who have guided us by their articles, dissertations and books. They have definitely paved the way to shape this study with their previous contributions in the area of reading comprehension instruction.

References

Adler, M. (2015). *The effects of strategy instruction in reading informational text level and motivation of fifth grade students***.** Doctoral dissertation, Liberty University. *https://digitalcommons.liberty.edu/doctoral/1123/*

Afflerbach, P., Pearson, D. & Paris, S. (2008). C*larifying differences between reading skills and reading strategies.* International Literacy Association and Wiley, 61(5).

Aguilera, V. (2014*). Strategy intervention to enhance reading comprehension of 15-year-old students in Mexico.* Doctoral Dissertation, University of York.

Alatis, E. J. (1993). *Strategic interaction and language acquisition: theory, practice, and research.* Washington DC: Georgetown University Press.

Alene Ketema (2021). E*ffects of text rhetorical organization strategy instruction on students' reading comprehension performance: first year undergraduate students at University of Gondar in focus.* ERJSSH 8(2). https://doi.org/10.20372/erjssh.2022 .0802 .04

Alfassi, M. (2010). R*eading to learn: effects of combined strategy instruction on high school students.* The journal of educational research, 97(4).

Amare Tesfie (2021). *Exploring the perception and practice of teaching reading skills in secondary schools in ethiopia.* The journal of Asia TEFL, 18(1).

Braten, I. (2010). *Implementation and effects of explicit reading comprehension instruction in fifth-grade classroom.* Learning and Instruction, 21,

hing reading strategies: how methodology affects language course articulation. Foreign Language Annals, 21, 109–119.

Bimmel, P. E. (2001). E*ffects of strategy training treading comprehension in first and foreign language.* European Journal of Psychology of Education, 16, 509–

ge four students' reading achievement in Dona Berber primary school. Science, Technology and Arts Research Journal, 4(3), 265-272.

Cekiso, M. (2007). *Evaluating reading strategies instruction.* Doctoral dissertation, South Africa: North West University. https://dspace.nwu.ac.za/bitstream/handle/10394/1344/

Child, A. (2012). E*xplicit instruction elements in core reading programs.* Utah State University: Utah. https://digitalcommons.usu.edu/etd/1176

Cohen, L, Manion, L., & Morrison, K. (2018*). Research methods in education* (8th Edition). Routledge: New York.

Collum, S. (2012). *The impact of teacher attitudes and perceptions of direct instruction on student achievement in reading.* Doctoral Dissertation, Liberty University.

Creswell, J. (2009). *Research design: qualitative, quantitative, and mixed methods approaches* (3rd Edition). Sage Publications: Los Angeles.

Dawit Tibebu (2014*). The effect of explicit reading strategy instruction on reading comprehension of upper primary grade students.* International Journal of Education, 6 (3), 81-100. www.macrothink.org/ije

Dole, J. A., Duffy, G. G., Roehler, L. R., & Pearson, P. D. (1991). *Moving from the old to the new: Research on reading comprehension instruction.* American Educational Research Association, 61 (2).

Dornyei, Z. (2005). T*he psychology of the language learner: Individual differences in second language acquisition.* London: Lawrence Erlbaum Associates, Inc.

Duke, N. And Pearson, D. (2002). Effective Practices for Developing Reading Comprehension. In S, J, Samuels & A, E. Farstrup (Editors). *What research has to say about reading instruction.* International Reading Association: Newark.

Duke N. K., Pearson, P. D., Strachan, S. L, & Billman A. K. (2011). E*ssential elements of fostering and teaching reading comprehension.* Researchgate, available at DOI:). W*hat classroom observations reveal about reading comprehension instruction.* International Reading Association, Reading Research Quarterly. 14(4). 481-533.

Grabe, W. (2009). *Reading in a second language: moving from theory to practice.* Cambridge: Cambridge University Press.

Grabe, W. & Stoller, F. (2011). *Teaching and researching readin*g. (2nd ed.). London: Routledge.

Grenfell, M. And Harris, V. (1999). *Modern languages and learning strategies.* Routledge: London.

Guthrie, J. T., & Wigfield, A. (2000). Engagement and Motivation in Reading. In L. M. Kamil, B.P. Mosenthal, P.D. Pearson & R. Barr. (Eds.). *Handbook of reading research (Vol. 3* pp. 403–422). Mahwah, NJ: Erlbaum.

Israel, S. & Duffy, G. (2009). *Handbook of research on reading comprehension* (2nd Edition.). Routledge: New York.

Johnston, P. (1985). *Teaching students to apply strategies that improve reading comprehension.* The Elementary School Journal, 85(5).

Krashen, S. (1982). *Principles and practices in second language acquisition.* Oxford: Pergamon Press.

Krashen, S. (2004). *The power of reading: insights from research* (2nd Edition). Heinemann: Portsmouth. Available at www.heinemann.com

Littlewood, W. (1981). C*ommunicative language teaching*. Cambridge: CUP.

ara, D. (2007*). Reading comprehension strategies: theories, interventions, and technologies.* New York: London, Lawrence Erlbaum Associates, Inc.

Federal Democratic Republic of Ethiopia Ministry of Education. (2011). *English for Ethiopia:*
student textbook, grade 11. England: Pearson Education.

National Reading Panel (NRP) (2000). *Teaching children to read: An evidence based assessment of the scientific research literature on reading and its implication for reading instruction*. Washington, DC: National Institute of Child Health and Human Development. www.nationalreadingpanel.org/

Nunan, D. (1997). S*trategy training in the language classroom: an empirical investigation*. RELC Journal, 28(2), 56-81.

O'Malley, J. M. & Chamot, U. A. (1990). *Learning strategies in second language acquisition***.** Cambridge: Cambridge University Press.

Oxford, R. L. (1990). L*anguage learning strategies: what every teacher should know.* New York: Newbury House.

Paris, S., Lipson,
M. Wixson, K. (1983). B*ecoming a strategic reader*. Contemporary Educational Psychology, 8(6), 293-316.

Pearson, P. D., & Cervetti, G. N. (2017). The Roots of Reading Comprehension Instruction. In S. E. Israel (Ed.), *Handbook of research on reading comprehension*. (2nd ed., pp. 12- 56). New York, NY: The Guilford Press.

Pearson, P.D., & Dole, J.A., (1988). E*xplicit comprehension instruction: a review of research, a new conceptualization of instruction*. The National Institute of Education: Urbana

Piyanukool, S. (2001). *Effects of teaching reading through discussion of text structures.* Doctoral dissertation, University of North Texas: Texas. https://digital.library.unt.edu/ark

Powell, K. & Kalina, C. (2009). C*ognitive and social constructivism: developing tools for an effective classroom*. Education, 130(2).

Pressley, M. (2000). What should Comprehension Instruction be the Instruction of? In L. M. Kamil, B.P. Mosenthal, P.D. Pearson & R. Barr. (Eds.). H*andbook of reading research*. (Vol. 3, pp. 545-558). Lawrence: Mahwah

Relton, S. (2017). *Reciprocal teaching: an exploration of its effectiveness in improving the vocabulary and reading comprehension of key stage two pupils with and without*

English as an additional language. Doctoral dissertation, University College London: London. https://discovery.ucl.ac.uk/1575479/

Riazi, A. M. (2016). The routledge encyclopedia of research methods in applied linguistics *qualitative, and mixed methods research.* New York: Routledge

Snow, C. E. (2002**).** *Reading for understanding: Toward an R & D program in reading comprehension.* Santa Monica, CA: Rand.

Tekle Ferede (2016). *A study of independent reading in English as a foreign language (EFL) in Ethiopian schools.* Doctoral dissertation, University of South Africa. https://uir.unisa.ac.za/handle/10500/22186

Wang, M. (2009). E*ffects of metacognitive reading strategy instruction on EFL high school students' reading comprehension, reading strategies awareness, and reading motivation.* Doctoral dissertation, University of Florida. https://ufdc.ufl.edu/UFE0041084/00001

Wigfield, A. & Guthrie, J. (1997). R*elations of children's motivation for reading to the amount and breadth of their reading.* Journal of Educational Psychology, 89(3), 420-432.

Garrett, J. (2005). *Understanding interobserver agreement: the kappa statistic.* Family Medicine, 37(5).

Yenus Nurie (2017). *Pedagogical Practices in Teaching Reading Comprehension: A case study of three EFL teachers in a secondary school in Ethiopia.* PASAA, 54.

Yenus Nurie (2018). Conceptualizing reading to learn: strategy instruction and EFL students' reading comprehension. *International Journal of Curriculum and Instruction,* 10(2), 93–117.