The Effects of Cognitive Reading Strategy Training on Students' Reading Performance and Reading Motivation

Deneke Madebo [1*], Hailu Gutema[2]

Abstract

This study investigated whether explicit cognitive reading strategy training contributes to students' reading performance and reading motivation. The study was carried out in a randomly selected Ethiopian public secondary school in Hosanna Town. A quasi-experimental research approach was set out to investigate the effect of explicit cognitive reading strategy training on both reading performance and reading motivation of Grade 9 students. To gather data before and after 10-hour training within eight weeks, a teacher-made pre-test, a parallel teacher-made post-test, and a reading motivation questionnaire were employed. A total of 70 students, that is, 35 students from each of the control and experimental groups participated in the study. Independent Samples Test (to compare two groups) and Paired Samples Test (to compare group scores) were used to analyse data using SPSS, version 25. The results showed that there was a statistically significant difference between the pre-test and post-test scores of reading performance of the Experimental Group (p=.000), which was in contrast to the insignificant relationship between the scores of the Control Group (p=.299). However, the Control Group showed improvement in reading motivation (p=.047) than the Experimental Group did (p=.062). The results revealed that explicit cognitive reading strategy training improved students' reading performance. Thus, concerned bodies should give due attention to teaching cognitive reading strategies explicitly and enhancing students' reading comprehension.

Key Words: /Cognitive reading strategy/ Reading motivation/ Reading performance/ Strategy training/

---

[1]* Corresponding author: PhD ELT Candidate,AAU; Email: dmudoc10@gmail.com. The detail of authors is found at the back of this manuscript.

---

1. Introduction

Reading, which is a complex process influenced by cultural and individual factors, is one of the major aspects of human communication (Oxford, 2017) for a better understanding of written texts. It is an essential language tool that enables readers to extract meaning from written texts (Habók & Magyar, 2018). For this reason, empowering students with required reading ability at all educational levels is a crucial agenda of scholars in the field. To empower them in reading ability, reading strategies are paramount. These strategies are defined as steps or actions taken by learners to improve the development of their reading skills (Oxford & Cohen, 1992 cited in Paredes, 2010).

Research shows ample reasons for paying due attention to improve reading ability in secondary school. Reading comprehension provides the basis for a substantial amount of learning (Kirsch *et al.*, 2002 cited in Guthrie *et al.*, 2004). However, as reading is a complex process and demanding (Anderson, Hiebert, Scott, & Wilkinson, 1984 cited by Dole, Duffy, Roehler, & Pearson, 1991), one of the serious problems secondary school students face is being unable to understand written texts in English (Lei, 2010; KNEC Report 2011; Masinde, 2005 cited in Kulo & Omulando, 2014).

Although teachers strive to improve students' comprehension of reading, many students do not comprehend what they are reading and a large number of pupils join secondary schools with extremely weak reading ability (Diller, 2007 & Hodgson, 2008 in Kulo & Omulando, 2014). Agak (1995) quoted by Kulo and Omulando (2014) indicates that there is a great concern among educators that students' reading is declining at an alarming rate, and students' reading ability becomes weak when they complete secondary school without acquiring the required reading comprehension practices. This implies that developing students' comprehension ability deliberately and systematically in secondary schools is of paramount (KIE 2006 cited in Kulo & Omulando, 2014).

On top of this, being successful in comprehension ability is a crucial issue in the Ethiopian context of English language learning. The research report shows that learning the English language to read effectively and extract the required meaning from written texts in Ethiopia is considered to be vital (Smith, Stone & Comings, 2012). Thus, being able to read in English to make learning easier and comprehend written texts better, particularly in Ethiopian secondary schools, is indispensable.

To extract appropriate meaning from written texts, scholars have suggested that cognitive reading strategies play considerable roles (Karim & Qanwal, 2016). However, whether to train these cognitive strategies explicitly or implicitly is arguable among several scholars. For some of them, explicit cognitive reading strategy training is associated with improved reading comprehension outcomes (the Institute of Education Sciences, 2010 quoted by Moore, 2015) in secondary schools. According to Moore (2015), this finding aligns with the recommendations of the review of reading comprehension of the National Reading Panel (2000).

In addition, as scholars argue, effective use of cognitive reading strategies can have a motivational effect on learners' reading comprehension. In this regard, Oxford (2003) has forwarded her advice that in evaluating the success of any reading strategy instruction, teachers should look for the progress of individuals toward reading proficiency and signs of increased motivation. Oxford (2003), citing Nunan (1997), indicated that, in studies, strategy instruction has led to increased EFL learning motivation. Motivation is considered by many to be a major learner variable relating to success in language learning, particularly reading comprehension (Hairul, Ahmadi, & Pourhosein, 2012 in Ahmadi, 2017). Cromley and Kaplan (2015) have confirmed that students' comprehension and motivation determine their course grades.

It has been claimed that effective use of reading strategies favours better performance and increases motivation of learners' reading. However, experimental studies carried out in different countries have revealed that controversy about the effects of explicit cognitive reading strategy training on students' reading performance and reading motivation in secondary school exists until today (Suyitno, 2017). In this regard, for example, students who received explicit reading strategy instruction did not show a significant change in their reading motivation (Li *et al.*, 2022).

_____

This effect of cognitive reading strategies is controversial mainly for two reasons. For one thing, reading strategy learning context (first/second/foreign language) is a hot issue of argument (Manoli, 2013). Different learners of different reading strategies in different contexts perform very differently (Green & Oxford, 1995 as cited in Oxford, 2003; Ali& Razali, 2019). Thus, the term reading strategy has been used in different contexts differently (Raftari, Seyyedi, & Ismail, 2012), and exploring this issue deserves attention in future research (Pawlak & Oxford, 2018). Contrary to this, as Saks, Leijen, and Täht (n.d) and Anderson (2003) cited in Raftari, Seyyedi, and Ismail (2012) strongly argued, outcomes of reading strategy training do not depend on context. For these scholars, the EFL/ESL distinction is diminishing, and the traditional dichotomy between these contexts may not be as important today as it has been in previous years; however, this controversy of learning context has continued (Pawlak & Oxford, 2018; Ali & Razali,2019). For another thing, the results of both single-strategy and multiple-strategy studies, for instance, reviewed by Dole, Nokes, and Drits (2009), have revealed that the statistical significance of the effect of cognitive reading strategies on reading comprehension between experimental and comparison groups is controversial until today.

Considerable studies have shown discrepancies in the effect of cognitive reading strategies on reading performance (Naiman *et al.*, 1978/1996, cited in Macaro, 2006; Dole, Nokes & Drits, 2009; Şahan's, 2012; Manoli 2013; Yaman & Çakici's, 2013; Oxford & Burry-Stock, 1995 cited by Barjesteh, Mukundan & Vaseghi, 2014). As the studies reviewed so far show, cognitive reading strategies have not been separately investigated in experiments to show their possible effects on reading performance and reading motivation when multiple reading strategies are taught explicitly. Thus, the explicit cognitive reading strategy training of this study aimed at examining whether this approach of training affected students' reading performance and reading motivation or not. Accordingly, this study gave due attention to investigating the direct effect of explicit cognitive reading strategy training (independent variable) on reading performance (dependent variable), and on students' reading motivation (dependent variable). Therefore, the study attempted to answer the following two questions:

1. Does explicit cognitive reading strategy training have any contribution to learners' reading comprehension of English texts?
2. Does explicit cognitive reading strategy training have any contribution to learners' reading motivation of English texts?

2. Review of Related Literature

2.1 Contribution of Explicit Cognitive Reading Strategy Training to Reading Performance

Studies show that learning reading strategies in secondary schools is important because learners at this level are required to be strategic and successful readers. Scholars in the field believe that reading comprehension provides a basis for a substantial amount of learning (Kirsch *et al.*, 2002 cited in Guthrie *et al.*, 2004). In addition, being successful in reading comprehension is a crucial agenda in the world of the English language and its development in various aspects; this is also true in the Ethiopian English language learning context. For this reason, research reports showed that learning the English language in Ethiopia is considered to be crucial (Smith, Stone & Comings, 2012). Hence, being able to read in English to make learning easier and to comprehend written texts better in secondary schools today is indispensable. On this significant basis, learners' needs and their learning strategies of reading comprehension have attracted researchers' attention to help the target learners.

Researchers have been trying to help secondary school learners by providing possible ways of learning reading strategies. They have suggested that training learners of all grade levels to be strategic readers is paramount. To this, Oxford (2003) has pointed out that those skilled teachers can help their students develop an awareness of learning strategies and enable them to use a wider range of appropriate strategies. Oxford (2003) further stated that developing the awareness of reading strategies can be achieved through preparing students

for learning reading strategies and conducting reading strategy training. According to researchers, training learners and helping them to increase their comprehension ability to be competent at reading a second or foreign language is of great importance (Macaro, 2001; Chamot, 2005). Concerning this, Macaro (2001) argued that one of the main purposes of language teaching and learning is for students to become increasingly competent at reading a target language. For this reason, researchers agree on the importance of reading strategies for the success of reading comprehension. Thus, training learners in reading strategies is required as these strategies could improve learners' reading comprehension.

To enhance learners' competency in reading, scholars agree that students' awareness of reading strategies needs to be raised by providing strategy training. However, as there are two modes of strategy teaching, namely, explicit and implicit (Oxford, 2011), which mode to apply is controversial until today between scholars who argue for explicit teaching of reading strategies and those who favour implicit instruction.

Research evidence such as of the Institute of Education Sciences (2010), as quoted by Moore (2015), shows that explicit strategy instruction is associated with improved reading comprehension outcomes. As indicated by Moore, this finding aligns with the recommendations from the National Reading Panel (2000) review of reading comprehension. Research also supports explicit instruction of cognitive strategies for the optimum development of reading comprehension skills. On the other hand, several scholars, as Oxford (1990) indicated, argue that implicit instruction needs to be encouraged. Such scholars try to demonstrate "how active learning techniques implicitly stimulate the use of language learning strategies" (Oxford, 1990, p. 232). In this case, the specific language learning strategies the students are using are not pointed out, however. This means that strategy training is overtly included through active language learning.

Because several researchers believe that this controversy of reading strategy training modes can be minimized through research, they call for further investigations to fill the gap (Dole, Nokes & Drits, 2009; Pawlak & Oxford, 2018; Ali & Razali, 2019). Thus, this study has tried to test the explicit mode of training, in this case, explicit cognitive reading strategy training, to examine its actual effect on reading comprehension and reading motivation of students in an Ethiopian secondary school, Grade 9 students in focus. Literature shows that single strategies and multiple strategies have been investigated to some extent (Dole, Nokes & Drits, 2009). However, the influence of cognitive reading strategies on reading comprehension has not been addressed in these studies. Dole, Nokes, and Drits (2009), for instance, argued that the studies could not differentiate cognitive from metacognitive studies, as many of the instructional studies reviewed up to 2009 did not make such a differentiation. As a result, these scholars merged and treated cognitive and metacognitive studies together as cognitive strategy instructional studies. On the other hand, a recent review of 27 cognitive and metacognitive reading strategy studies reviewed by Ali and Razali (2019) indicated that these strategies are overlapping. This may indicate to some extent that the differentiation between cognitive and metacognitive reading strategies is still unclear and needs further investigation.

From the 27 reviewed studies mentioned above, which were carried out from 2009 to 2017, only five were devoted to treating cognitive reading strategies separately; whereas the others were about metacognitive or both cognitive and metacognitive reading strategies merged. Of the mentioned five separately studied cognitive reading strategies, only two were experimental. One of these aimed at investigating reading strategy instruction via electronic storybooks on EFL young readers' reading performance; the other one aimed at improving reading skills through effective reading strategies through an Action Research approach.

In addition, the 27 reviewed papers on the reading strategies had different research focuses such as identifying the effectiveness of using certain reading strategies on the students, highlighting the most and the least occurred number of strategies, highlighting and overcoming the challenges faced by the students, and examining specific teaching methods on reading strategies. Similarly, the current researchers have understood from the local studies reviewed that cognitive reading strategies have not been studied (Abiy, 2012; Mebratu, 2014; Dawit, 2014; Belilew, 2015; Tekle and Nchindila, 2017; Seid, 2017; Benti,, Temesgen & Alemayehu, 2017; Yenus, 2018; Getachew, 2018; Gidalew & Van den Berg, 2018; & Chanyalew, 2019). To fill this obvious gap, therefore, the current study has aimed at investigating the effect of multiple (six strategies in one

study) explicit cognitive reading strategies on reading performance in an experimental approach so that the contribution of the study is original and significant.

2.2 Contribution of Explicit Cognitive Reading Strategy Training to Reading Motivation

Motivation is another factor to increase learners' reading comprehension. Research shows that several strategies can assist in developing motivation (O'Malley and Chamot, 1990). It has been strongly argued concerning this as "Reading motivation is a critical contributor to reading achievement and has the potential to influence its development" (Davis *et al*., 2017,p.1). Other scholars indicated that students' disengagement, for instance, can have detrimental effects on their reading ability (Guthrie, McGough, Bennett, & Rice, 1996; Baker, Afflerbach, & Reinking, 1996; Guthrie & Wigfield, 1999; Paris & Oka, 1986) cited by Davis *et al*. (2017).

This connection between reading motivation and reading comprehension has caught researchers' attention. According to researchers such as Sloat, Beswick, and Willms (n.d), who are cited by AD-Heisat *et.al.* (2009), using effective reading strategies and students' motivation to read is interrelated to enhance their reading performance. That is why Oxford (2003) forwarded her advice that in evaluating the success of any strategy instruction, teachers should look for individuals' progress for signs of increased motivation in addition to language proficiency. As Oxford (2003), citing Nunan (1997) indicated, studies showed that strategy instruction has led to increased EFL learning motivation. Besides, motivation is considered by many to be a major learner variable relating to success in language learning, particularly reading comprehension (Hairul, Ahmadi, and Pourhosein, 2012 cited in Ahmadi, 2017). In line with this, several studies have shown the influence of motivation in language learning strategies (Politzer & McGroarty, 1985; Oxford, 1989; Oxford & Nyikos, 1989; Lunt, 2000) cited in Paredes (2010). Cromley and Kaplan (2015) have confirmed that student cognition and motivation determine student course grades, in this case, reading comprehension performance.

Some studies, however, indicated that reading motivation may not affect students' reading comprehension. In this regard, in their study of the effect of motivation on the choice of language learning strategies, Zarei and Elekaei (2013) found that the level of motivation did not significantly affect students' choice of cognitive strategies. In their very recent study of the effect of explicit reading strategy instruction on reading comprehension and reading motivation conducted in EFL learners' context of a Chinese university, Li *et al*. (2022) found that, although students who received explicit reading strategy instruction made significant improvement in their reading comprehension, there was no significant change in reading motivation. This implies that, in contrast to the claimed favourable contribution of language learning strategies to increased motivation by several scholars (as mentioned earlier), reading strategy training does not necessarily improve students reading motivation. In addition, it has not been indicated in the studies whether or not cognitive reading strategies contribute to increased motivation when the strategies are taught explicitly. This theory of a possible connection between reading strategies and reading motivation needs further investigation. Thus, the second objective of the current study was to investigate the possible contribution of explicit cognitive reading strategy to reading motivation.

2.3 Theoretical and Conceptual Frameworks

This study was based on post positivism which is one of the four worldviews/paradigms suggested in the literature (Creswell, 2009; Oxford cited by Uztosun, 2015). According to Creswell (2009), the post positivist assumptions have represented the traditional form of research, and these assumptions hold more for quantitative research than qualitative one. Post positivists hold a deterministic philosophy in which causes probably determine effects or outcomes. Thus, the problems studied by post positivists reflect the need to identify and assess the causes that influence outcomes such as those found in experiments. Thus, in the scientific method, the accepted approach to research by post positivism, an individual begins with a theory, collects data that either supports or refutes the theory and then makes necessary revisions before additional tests are made. Hence, this theory is appropriate and relevant to assess the effects of reading strategy training on students' reading comprehension.

_____

Based on this philosophical assumption, this study adopted Oxford's model of cognitive theory that Stern (1975) and Rubin (1975), cited in Griffiths (2004), initially put forward and, later, Oxford (1990) introduced to put into practice. Ellis described that Oxford has made outstanding theoretical contributions to language learning strategies, particularly reading, in that her taxonomy is viewed as one of the most comprehensive models formulated (Ellis, 1994 cited in Yaman & Çakici, 2013). It is widely accepted that Oxford (1990) has made outstanding theoretical contributions to the issue of reading strategies. The Strategy Inventory for Language Learning is a scale Oxford used to see which learning strategies the learners use to what extent; this is one of the most broadly used scales to this end. Oxford (1990) divided language learning strategies, particularly reading strategies, into two main groups Direct and Indirect. She then divided each of these groups into three: memory, cognitive, and compensation as direct strategies, whereas meta-cognitive, affective, and social as indirect strategies. Oxford (1990) reported that these strategy groups and strategies defined under these groups are all closely linked together and interact with each other resembling direct strategies to a "performer" and indirect ones to a "director". To attain a desirable success or conclusion performer and director should cooperate and work with coordination. This performer and director simile of Oxford shows the close and indispensable interrelation among different strategy types in reading comprehension. That is why strategy instruction is a demanding procedure. As strategy training is a demanding procedure, not a casual one, some preparations and decisions need to be made before an instruction process. Oxford (1990, p.204) has suggested an eight-step strategy training model as below:

1. Determine the learners' needs and the time available.
2. Select strategies well.
3. Consider integration of strategy training.
4. Consider motivational issues.
5. Prepare materials and activities.
6. Conduct "completely informed training."
7. Evaluate the strategy training.
8. Revise the strategy training.

Having this model of the study in mind and based on the purpose and the theoretical framework of the study, it would be possible to draw the following conceptual framework.
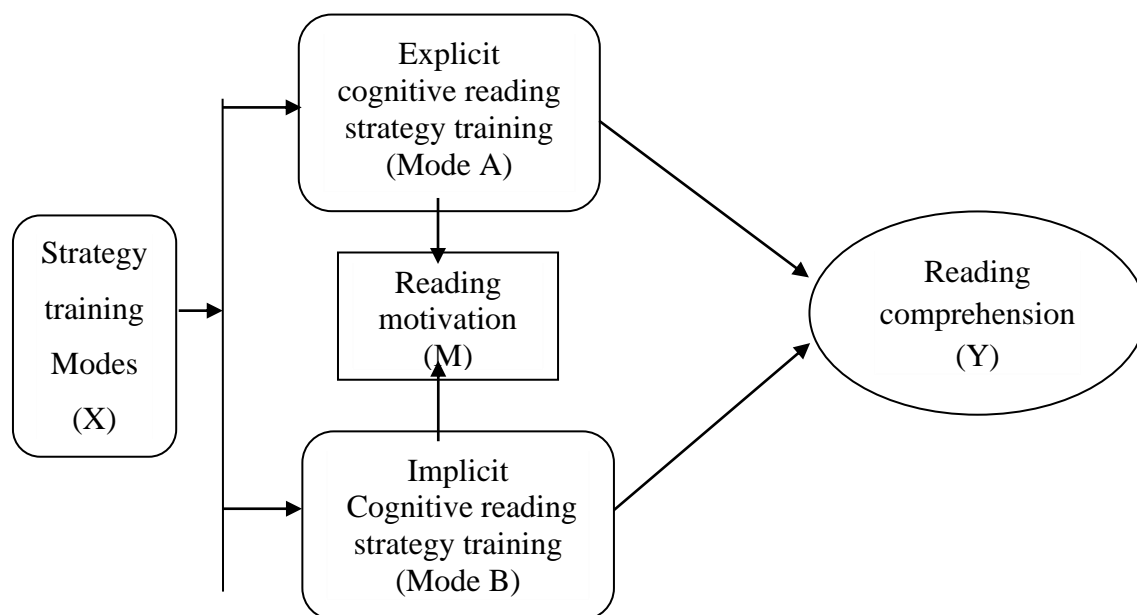
***Figure 2.1*:** Conceptual framework of the current study

_____

This conceptual framework shows direct/indirect relationships between independent and dependent variables. The framework shows strategy training modes (X) which can be for the Experimental Group (Mode A) and the Control Group (Mode B). It shows the effect of explicit cognitive reading strategy training (Mode A) on two dependent variables such as reading performance (Y) and reading motivation (M). The framework also shows the effect of conventional (implicit) cognitive reading strategy training (Mode B) on the same dependent variables, reading comprehension (Y) and reading motivation (M). M (for mediation or prediction) is a potential variable to predict the score of reading performance. In this case, because of each mode of training, the participants of the study could show their self-reported position of reading motivation. Having these theoretical and conceptual frameworks, the following research methods were used for the study.

3. Methods

This study employed a quantitative research approach as it applied a quasi-experimental study to investigate students' reading performance and reading motivation of two cognitive reading strategy training modes of experimental and control groups quantitatively. This approach allows applying statistics in analysing numerical data.

3.1 Participants

This study employed a total of 70 Grade 9 students from a randomly selected public school in Hosanna Town, 232 kilometres south of Addis Ababa, which is the capital of Ethiopia. Two intact groups were randomly assigned as the Experimental Group and the Control Group. Each group consisted of 35 students who participated in this study. The Experimental Group consisted of 16 males and 19 females, whereas the Control group consisted of 15 male and 20 female students. The participants were between 15 to 20 years of age. There were no significant age and gender differences between the two groups.

3.2 Instruments

The researchers collected data by using two parallel teacher-made tests (a pre-test and a post-test) and a motivation questionnaire. Each of the tests consisted of 30 objective items (5 fill-in-the-blanks, 19 multiple choice, and 6 matching) constructed from two fairly short passages. The researchers administered the pre-test to collect data before the intervention to check the homogeneity of the reading proficiency level of the two intact groups, and they administered the post-test to collect data immediately after the intervention to compare the reading performance of the two groups.

The researchers carried out validation processes of the tests. After the researchers prepared the tests based on item setting guidelines of reading comprehension tests, two subject matter experts evaluated the tests for their face validity and content validity (including their parallelism, appropriateness, wording, clarity, difficulty level, culture bias, and the like). In addition, one measurement and evaluation expert evaluated the tests. After the experts evaluated the tests and after the researchers made necessary improvements to them, both tests, they administered the tests to 52 students (26 students for the pre-test and 26 students for the post-test) for the pilot so that Item Analysis (for Item Difficult Level and Item Discrimination Index) was calculated before the 70 participants of the study took the tests. The researchers also checked that the tests were reliable to use. Based on the analysis made, they made important improvements to the items.

After the 70 students took the test, Item Analysis was again carried out to check item difficulty level and item discriminating index, that is, to check whether each item of the tests was too easy/difficult and/or discriminating or not.

Normality tests were computed during both the pilot and the main study to determine whether the distribution of data sets was well-modelled or not. It has been shown from the points plotted in the QQ plot, in both cases, that normal data fell approximately on a straight line, indicating a high positive correlation. These

plots helped to identify outliers easily. The normal probability curve of a histogram of the sample data was also compared. Normality tests enabled us to determine that the T-test was appropriate to use for the analysis of the data. Eventually, the tests were used after ensuring that they were valid to use for the study.

The second tool, the Foreign Language Reading Attitudes and Motivation Scale (FLRAMS) questionnaire, originally developed by Erten *et al.* (2010) and, later applied by Santürk (2015) and Torudom and Taylor (2017), was employed to gather data from the participants about their reading motivation both before and after the training. The questionnaire which consisted of 31 items was in a five-point Likert scale format from strongly disagree (1) to strongly agree (5). According to Erten *et al.* (2010), validation processes in the development of this instrument were taken and the reported internal consistency estimate of the reliability of the instrument and the Cronbach's Alpha coefficient (Santürk, 2015), and Alpha coefficient values above 0.7 are considered acceptable (Cohen, Manion, & Morrison, 2007).

In addition to this, Cronbach's Alpha coefficients of the self-reported responses of the participants of this study were calculated and obtained at .851 and .788 before and after the intervention respectively. The same questionnaire was administered before assigning the target groups and after completing the strategy training. The purpose of the first round of self-reporting was to understand the state of the students' reading motivation. The second one was to check if the students in the two groups had made any changes to their reading motivation they showed in the first round self-report or not. The researcher translated the reading motivation questionnaire from English (a foreign language) into Amharic (the students' second language). Thus, below each item, the corresponding Amharic translation was put to ensure full understanding of the respondents.

3.3 Materials

To meet the intended purpose of the training, only the first part of the materials provided in the Grade9 English student textbook, English for Ethiopia, (MoE, 2003) were used. Grade 9 was chosen as it is the beginning of Ethiopian secondary school. From the mentioned materials, only reading sections of units two to four were selected because unit one of the textbook was about general explanations of reading strategies and the mentioned units of the first semester were ample for the purpose. These sections of the text book were selected to avoid or at least to minimize any unwanted inputs to be likely gained through extra practicing the activities in the textbook. If different materials rather than the materials in the textbook were prepared and used for the training, then, the materials in the textbook could be another unwanted source for practicing reading comprehension when taught by likely different teachers and this could affect the research findings of the study.

Thus, both control and treatment groups were provided with the same materials of the reading sections in the student's textbook but with different cognitive reading strategy training approaches. The Control Group of the study was taught the reading materials in the textbook and the reading strategies provided in it using a conventional approach; whereas, the Experimental Group was taught the same materials of reading strategies in the textbook as that of the Control Group but with the extra treatment of the selected six cognitive reading strategies such as repeating, reasoning deductively, analysing expressions, taking notes, summarising, and highlighting.

The cognitive reading strategies presented in the Students' Textbook did not invite teachers to teach them. All the reading comprehension activities and exercises designed for students in the current Grade 9 English textbook were used with modes of teaching and for different purposes. To control unwanted influences of treatment, there was not an application change of the activities and exercises in the students' current textbook for the Control Group. In other words, all the activities and exercises practised by the Control Group were the same as that of the activities and exercises that were practised currently by the other groups (sections) of Grade 9. Hence, not only the materials in the students' textbook but also the implicit approach of the strategy training of the Control Group was kept constant as conventional. As the purpose of the quasi-experiment was to

examine the considerable difference likely to be observed between the two groups because of the two modes of training, the cognitive reading strategies mentioned were plainly taught for the Experimental Group to the maximum. The cognitive reading strategies presented in the Students' Textbook did not actually invite teachers to teach them plainly.

3.4 Data Collection Procedure

Before the participants took the pre-test and filled in the questionnaire, before the intervention, ethical approval was granted by the administrations of both Hosanna Town Education Office and Yekatit 25/67 Secondary School where the research took place. Also, the participants of the study agreed to take part in the research. Then the participants took the pre-test and filled in the questionnaire. Following this, the Experimental Group was taught six cognitive reading strategies mentioned earlier explicitly (Oxford, 1990); whereas, the Control Group was taught the conventional one. To avoid or minimize bias, both groups were taught by the same well-trained English teacher for 10 hours (600 minutes) within eight weeks from 01 December 2021 to 29 January 2022. Post-test and second-round self-reported questionnaire data were collected after the intervention, at the very beginning of February 2022. Each group of participants took the tests in separate rooms but in similar conditions including time. Each test took 50 to 75 minutes to complete. Each test was marked out of 50 and the scores were recorded carefully for further processes of analysis.

3.5 Data Analysis

Software, SPSS, version 25, was applied to analyse data. To compare the two groups, Independent Samples T-Test (to use Independent Sample Test) was applied. To compare the scores of each group, a Paired Samples T-Test (to use Paired Samples Test) was applied. Means of scores and Standard Deviations (distances of scores from means) were also used. Cohen's d (for scores of groups) and Pearson's correlation coefficients (Pearson's r) (for scores of variables within a group) were employed to determine the strength of the relationships of the mean scores of the tests. Spearman's correlation coefficients (Spearman's rho) were computed to determine the relationships of the self-reported questionnaire data of the two groups. In each case of the analysis, 95% of the significance level or p-value (p<.05) was used to determine whether relationships between groups or scores were significant or not.

4. Result

As explained in the foregoing sections, a total of 70 students— 35 students from each of the Experimental Group (16 male and 19 female) and the Control group (15 male and 20 female)— participated in this study. The participants were between 15 to 20 years of age. There were no significant age and gender differences between the two groups.

This section presents the findings of the study. The data gathered through the pre-test and the post-test have been presented before the data gathered through the motivation questionnaire. Inferential data that needed to be closely explained were merged in simplified ways as quantified in the tables below. Hence, both descriptive statistics and correlation coefficients have been presented together in merged tables for the sake of simplification. To compare groups and variables, a significance level of 95% (p-value<.05) was applied as a cut point in each case, unless explained.

Contribution of cognitive reading strategy training to reading performance. To answer the first research question, "Does explicit cognitive reading strategy training have any contribution to learners' reading comprehension of English texts?", scores of the pre-test and post-test of the target groups were compared using T-Test as shown in tables 1 to 5 below. Cohen's d and Pearson's correlation coefficients

(Pearson's r) were used to determine the strengths of the relationships between groups and scores, respectively.

Table1

Comparison of Groups (pre-test scores) for Homogeneity of Reading Ability

	Group	N	Mean	Std. Deviation	T	df	Sig (2.tailed)
		Group Statistics			Independent Samples Test		
Pre-test	Control	35	19.03	6.419	-.668	68	.100
	Experimental	35	16.46	6.478			

To ensure whether control and experimental groups resembled in reading ability before intervention or not, their pre-test scores were calculated using the Independent Samples Test (Table 1). Although the distance (*SD* = 6.419 and *SD* = 6.478) from the means (*M* = 19.03 and *M* = 16.46) of the groups, respectively, is similar, it seemes that the Control Group better performed (by 2.57) before the groups were trained cognitive reading strategies. However, the level of significance (*t* = -.668, *df* = 68, *p* = .100) shows that a statistically significant difference was not shown between the two groups concerning their reading ability before they took training. Cohen's d (*d* =0.399) shows that the effect of the relationship between the groups is modest (between 0.21-.50). The result shows that both groups did not have different reading abilities before the intervention was carried out.

After ensuring control and experimental groups were similar in reading ability before the provision of the strategy training, the intervention was carried out and a post-test was administered at the end of the intervention. The results of the post-test have been put in tables 2 to 5 below.

Table 2

Comparison of Groups (post-test scores) after Intervention

	Group	N	Mean	Std. Deviation	T	df	Sig (2.tailed)
		Group Statistics			Independent Samples Test		
Pre-test	Control	35	16.03	6.968	-.140	68	.889
	Experimental	35	15.80	6.738			

To check whether both control and experimental groups had improved their reading ability after the intervention or not, their post-test scores were calculated using the Independent Samples Test (Table 2). Like the distance (*SD* = 6.968 and *SD* = 6.738) from the means of the groups, the means (*M* = 16.03 and *M* = 15.80) of the control and experimental groups, respectively, seem closely related; the difference between the two means is only 0.23. The p-value = .889 (*t* = -.140, *df* = 68, *p* = .889) shows that there is no statistically significant relationship between the groups. Cohen's d (*d* = 0.034) shows that the effect of the relationship (between 0-0.20) is weak. If both groups had improved their reading performance, there would have been a statistically significant difference between them. This does not mean, however, that neither of the groups improved reading performance after the groups were taught cognitive reading strategies.

To check if any change had been shown after the intervention, the pre-test score (Score 1) and post-test score (Score 2) (of both groups as shown in Table 3 and of each group as in Tables 4 and 5) were calculated by

using Paired Samples Test for significance level and Person's r for strength of the relationship of the two variables.

Table 3

Comparison of Pre-test and Post-test Scores of both Groups

	Group Statistics				Pearson's correlation coefficient	
Group	Score	N	Mean	SD	Pearson's r	Sig (2-tailed)
Both	Score 1	70	17.67	6.365	.6381	.001
	Score 2	70	15.71	6.396		

As shown in Table 3, the means (M = 17.67 and M = 15.71) of Score 1 and Score 2 seem different. The distance (SD = 6.365 and SD = 6.396) from the means are closely similar, however. As the Paired Samples Test shows in the last column of the same table, the p-value (r = .381, p = .001) indicates that a powerful statistically significant difference is shown between the two variables, overall pre-test and post-test scores of both groups. The strength of the relationship (r = .381) is also modest and positive. This finding indicates that both and/or either of the modes of the training improved students' reading performance. Looking at each group's performance before and after the intervention separately would make this ambiguity clear as shown in the following two tables.

Table 4

Comparison of Pre-test and Post-test Scores of Control Group

	Group Statistics				Pearson's correlation coefficient	
Group	Score	N	Mean	SD	Pearson's r	Sig (2-tailed)
Control	Score 1	35	19.03	6.419	.181	.299
	Score 2	35	16.03	6.968	.	

Table 4 shows that the mean score of the pre-test (M = 19.03) seems greater than the mean score of the post-test (M = 16.03) by 3.00. Again, the distances (SD = 6.419 and SD = 6.968) from the means seem relatively similar. As the Paired Samples Test in the last column of the same table shows, the p-value, p = .299, (r = .181, p = .299) of the relationship of the variables indicates that there is no statistically significant relationship between the variables of Control Group. In the same table, the effect size (r = .181) shows that the relationship of the variables is modest and positive (if the pre-test score of the Control Group increased, the post-test score of it would also increase and vice versa). This result has revealed that the outcome (p = .001) shown in Table 3 was caused not by the mode of training provided for the Control Group.

Table 5 below shows the relationship between the pre-test and post-test scores of the Experimental Group. Similar to Table 4, the Paired Samples Test and Pearson's r were used to check the relationship of the two variables and the strength of the relationship respectively.

Table 5

Comparison of Pre-test and Post-test Scores of Experimental Group

	Group Statistics				Pearson's correlation coefficient	
Group	Score	N	Mean	SD	Pearson's r	Sig (2-tailed)
Experimental	Score 1	35	16.46	6.478	.570	.000
	Score 2	35	15.80	6.738		

In Table 5, the means of pre-test (M = 16.46) and post-test (M = 15.80) scores seem similar as the difference is only 0.66; the pre-test score seems a bit better than the post-test score. The distance (SD = 6.478 and SD = 6.738) from the means also seem similar (the difference is only 0.26). However, as the significance level (p = .000) shows, there is a powerful statistically significant relationship between the two variables. The effect size (r = .570) given in the same table also shows that the relationship of the variables is strong and positive (if the pre-test score of the Experimental Group increased, the post-test score would also increase and vice versa). This means training cognitive reading strategy explicitly would desirably improve students' reading performance. This result reveals that the outcome (p = .001) shown in Table 3 was caused by the mode of training provided for the Experimental Group.

Contribution of cognitive reading strategy training to reading motivation. To answer the second research question, "Does explicit cognitive reading strategy training have any contribution to learners' reading motivation of English texts?", first round self-reported mean score (Score 1) and second round self-reported mean score (Score 2) of reading motivation of the target groups were compared using T-Test as shown in tables 6 to 10. Accordingly, Cohen's d and Spearman's correlation coefficients (Spearman's rho) were used to determine the strengths of the relationships between the groups and between the scores, respectively.

Table 6

Comparison of Groups' Scores of First (1ˢᵗ) Round Self-report

	Group Statistics			Independent Samples Test		
	Group	N	Mean	Std. Deviation	T	df	Sig (2.tailed)
1ˢᵗ round	Control	35	110.20	16.780	-1.573	68	.120
Self-report	Experimental	35	103.60	18.290	.		

In Table 6, the means (M = 103.60 and M = 110.20) of self-reported scores of the experimental and control groups, respectively, seem to be nearly similar. The distance (SD = 18.290 and SD = 16.780) from the means also seem to be slightly similar. However, there is no statistically significant relationship between the two groups concerning reading motivation before the intervention (t = -1.573, df = 68, p = .120); as Cohen's d (d = 0.376) shows, the effect of the relationship is modest, which is between 0.21-.50.

After ensuring that the experimental and control groups had similar reading motivation before the intervention, training was carried out and then their self-reported reading motivation was collected and the scores of the variables of the groups were computed as presented below.

Table 7

Comparison of Groups' Scores of Second (2nd) Round Self-report

	Group Statistics				Independent Samples Test		
	Group	N	Mean	Std. Deviation	T	df	Sig (2.tailed)
2nd round	Control	35	106.71	13.179	1.896	68	.062
Self-report	Experimental	35	113.26	15.589	.		

In Table 7, the mean scores ($M = 106.71$ and $M = 113.26$) of the control and experimental groups, respectively, depict that a slight difference is observed between the two groups. The Standard Deviations ($SD = 13.179$ and $SD = 15.589$) of the respective groups show that the groups seem to have different distances from their respective means. The p-value ($t = 1.896$, $df = 68$, $p = .062$) shows that there is no statistically significant difference between the groups of the students' first-round self-reported scores of reading motivation. As Cohen's d ($d = 0.455$) shows, the effect of the relationship is modest, which is between 0.21-.50.

The next three tables are used to compare the paired scores of the groups before and after the intervention.

Table 8

Comparison of Self-reported Mean Scores of Overall 1st and 2nd Self-reports

	Group Statistics				Spearman's correlation coefficient	
Group	Score	N	Mean	SD	Rho (ρ)	Sig (2-tailed)
Both	Score 1	70	106.90	17.738	-.238	.047
	Score 2	70	109.99	14.703	.	

Table 8 shows the comparison of overall self-reported mean scores of the groups before (Score 1) and after (Score 2) the intervention in the Paired Samples Test. Both the means ($M = 106.90$ and $M = 109.99$) of both scores and the distance ($SD = 17.738$ and $SD = 14.703$) from the means seem relatively different. The p-value ($\rho = -.238$, $p = .047$) indicates that a statistically significant difference is shown between the two variables, Score 1 (1st round self-report) and Score 2 (2nd round self-report) of the groups. The strength of the relationship is modest and negative. This finding indicates that either of the groups improved reading motivation possibly because of the training provided. Looking at each group's performance before and after the intervention would make this ambiguity clear as shown in Tables 9 and 10 below.

Table 9

Comparison of 1ˢᵗ and 2ⁿᵈ Self-reported Mean Scores of Control Group

	Group Statistics				Spearman's correlation coefficient	
Group	Score	N	Mean	SD	Rho (ρ)	Sig (2-tailed)
Control	Score 1	35	110.20	16.780	-.386	.022
	Score 2	35	106.71	13.179	.	

Table 9 shows the comparison of self-reported mean scores of the Control Group before (Score 1) and after (Score 2) the intervention in the Paired Samples Test. Little difference (3.49) in mean scores of reading motivation of the group between score 1 and score 2 ($M = 110.20$ and $M = 106.71$) is observed. The difference in Standard Deviations ($SD = 16.780$ and $SD = 13.179$) from the means is also observed. However, as this difference could not tell us the significance level of the relationship, we needed to calculate the level of significance and check. Accordingly, the p-value ($\rho = -.386$, $p = .022$) indicates that there is a statistically significance relationship between self-reported scores of reading motivation of the Control Group before and after the intervention. The strength of the effect of the relationship ($\rho = -.386$) is moderate and negative. If score 1 of reading motivation were high, score 2 would be low and vice versa. This finding is interesting and questionable, and it needs further investigation as the group without any special treatment showed improvement in reading motivation. The next table is used to compare the paired self-reported scores of the Experimental Group in the same way as that of the Control Group.

Table 10

Comparison of 1ˢᵗ and 2ⁿᵈ Self-reported Mean Scores of Experimental Group

	Group Statistics				Spearman's correlation coefficient	
Group	Score	N	Mean	SD	Rho (ρ)	Sig (2-tailed)
Experimental	Score 1	35	103.60	18.290	.032	.853
	Score 2	35	113.26	15.589	.	

Table 10 shows the comparison of self-reported mean scores of the Experimental Group before and after the intervention in the Paired Samples Test. As shown in the table, a difference (by 9.66) of mean scores of reading motivation of the group between score 1 and score 2 ($M = 103.60$ and $M = 113.26$), respectively, was observed. The difference in Standard Deviations ($SD = 18.29$ and $SD = 15.589$) from the means is also observed. However, as this difference could not tell us the significance level of the relationship, it needed to calculate the significance level and check. Accordingly, the p-value ($\rho = .032$, $p = .853$), indicates that a statistically significant relationship is not seen between self-reported scores of reading motivation of the Experimental Group before and after the intervention. The strength of the effect ($\rho = .032$) of the relationship is also weak and positive. If score 1 of reading motivation were high, score 2 would also be high and vice

versa. This finding is again interesting and questionable, and it needs further investigation as, unlike the Control Group, this group with special treatment showed no improvement in reading motivation.

5. Discussion

This study aimed to investigate whether or not training students' cognitive reading strategies explicitly had a direct contribution to their reading performance and an indirect contribution to their reading motivation. The findings showed inconsistent contributions of reading performance and reading motivation.

Both experimental and control groups were homogeneous in reading ability when they were compared before the intervention. The mean score results of the two groups after the strategy training also showed that there was no statistically significant difference between the groups ($p = .080$). The mean scores of each group recorded before and after the intervention were calculated using the Paired Samples Test and compared to see whether there were changes between the two scores of each group or not. The findings showed that, though no statistically significant difference was found for the Control Group ($p = .888$), there was a powerful ($p = .000$) statistically significant difference between the mean scores of the Experimental Group; Pearson's r calculated for the strength of the relationship also showed that the relationship was strong and positive ($r = .570$). It has been found that, unlike to Control Group, the Experimental Group showed great improvement in reading performance after it had been taught cognitive reading strategies explicitly.

Although earlier findings of explicit cognitive reading strategy training seem controversial (Dole, Nokes & Drits, 2009; Suyitno, 2017), the findings of this study go with the argument that cognitive reading strategies are considered to be potential to be an extremely powerful learning tool (O'Malley, Chamot, Stewner-Manzanares, Kupper, & Russo, 1985 in Griffiths, 2004) in every context to get students' reading performance improved. It also goes with the finding of Le *et al*. (2022); these researchers found that students who received explicit reading strategy instruction made significant improvements in their reading comprehension. Regarding this, Oxford (2003) argues that developing the awareness of reading strategies can be achieved through preparing for and conducting cognitive reading strategy instruction. Thus, it is possible to put that training in cognitive reading strategies explicitly has improved students' reading performance considerably; it has been found that when teaching cognitive reading strategies explicitly increases, students' reading performance also increases and vice versa.

Concerning the contribution of explicit cognitive reading strategy training to reading motivation, the findings showed unexpected differences. The Experimental Group that showed considerable improvement in reading performance after explicit cognitive reading strategy training ($r = .570$, $p = .000$); however, it could not show self-reported improvement in reading motivation ($\rho = .032$, $p = .853$).

On the other hand, the Control Group that was not taught cognitive reading strategies explicitly showed self-reported improvement in reading motivation ($\rho = -.386$, $p = .022$). This finding of motivation goes against Oxford's statement that strategy instruction has led to increased EFL learning motivation (Nunan, 1997 cited by Oxford, 2003). It also goes against the results of Li *et al.* (2022) in that, although students who received explicit reading strategy instruction made significant improvement in their reading comprehension, there was no significant change in their reading motivation. This suggests that further and in-depth investigation of the effect of explicit cognitive reading training on students' reading motivation is needed.

6. Conclusions and Recommendations

Conclusions. The main objective of this study was to investigate the effect of explicit cognitive reading strategy on learners' reading performance and their reading motivation. It is possible to conclude, based on the findings of the present study, that teaching students cognitive reading strategies explicitly has the power to improve students' reading performance considerably. However, explicit cognitive reading strategy training could not improve students' motivation to read as expected as claimed by many advocates. On the contrary, implicit cognitive reading strategy training improved students' motivation for reading significantly.

Recommendations. The results indicate that English teachers need to give due attention to training their students' cognitive reading strategies plainly so that students can improve their reading performance in Ethiopian secondary schools. Thus, English teachers in Ethiopian secondary schools should be encouraged to teach these strategies. The findings also indicate that further investigations on the effects of explicit cognitive reading strategy training on students' reading motivation are needed because students who were taught cognitive reading strategies plainly could not improve their motivation of reading as expected; whereas, students who were taught implicit or the current mode of teaching of cognitive reading strategies improved their motivation of reading. In addition, further investigations may cover to what extent reading motivation predicts reading performance.

Acknowledgements

Authors' contribution:
[1] Corresponding author: Deneke Madebo collected,; coded, and analysed the data using SPSS, interpreted the data, and produced the manuscript.
[2] Co-author: Hailu Gutema supervised the whole PhD project and commented on the draft and final version of the manuscript.

Authors' detail:

[1] PhD ELT candidate, Department of Foreign Languages and Literature, College of Humanities, Language Studies, Journalism and Communication, Addis Ababa University, Addis Ababa, Ethiopia. Corresponding Author's E-mail: dmudoc10@gmail.com, Phone Number: **+251911008594**; P.O.Box 1176; Addis Ababa University.

[2] PhD in ELT, Department of Foreign Languages and Literature, College of Humanities, Language Studies, Journalism and Communication, Addis Ababa University, Addis Ababa, Ethiopia. Email: hailug232@gmail.com, P.O.Box 1176; Addis Ababa University.

Corresponding author's Signature

Publisher's Note. Jimma University is neutral with regard to jurisdictional claims in published material.

_____

References

Abiy Yigzaw. (2012). The impact of students' self-regulated language learning on their reading achievement: Grade 9 students in focus. *International Association of Research in Foreign Language Education and Applied Linguistics ELT Research Journal*, 1(3), 175-188. Retrieved from *http://www. ulead.org.tr/journal*

Ahmadi, M. R. (2017). The impact of motivation on reading comprehension. *International Journal of English in Education.* Retrieved from www.ijreeonline.com

Ali, A. M. & Razali, A. B. (2019). A review of studies on cognitive and metacognitive reading strategies in teaching reading comprehension for ESL/EFL learners. *English Language Teaching,* 12(6).

Barjesteh, H., Mukundan, J. & Vaseghi, R. (2014). A Synthesis of language learning strategies: current issues, problems and claims made in learner strategy research. *Advances in Language and Literary Studies*, 5(6), 69-74. Doi:10.7575/aiac.alls.v.5n.6p.68

Belilew, Molla. (2015). The relationship between reading strategy use and reading comprehension among Ethiopian EFL learners. *International Journal on Studies in English Language and Literature (IJSELL)*, 3(9), 34-41. Retrieved from www.arcjournals.org

Benti, Yadetta, Temesgen, Mereba & Alemayehu, Negash. (2017). *The effect of reading strategy training on students' academic reading achievement: Grade nine students in Firi Gemta Gera and Yukiro high schools, Ethiopia, in focus*. *Ethiop.j.soc.lang.stud 4*(2), 27-48.

Chamot, A. U. (2005). Language strategy instruction: Current issues and research. *Annual Review of Applied Linguistics*, 25, 112–13.

Chanyalew, Enyew. (2019). Interdependence among Amharic language (L) reading ability, English language (L2) proficiency and L2 reading ability of grade eleven students. *Research in Pedagogy*, 9(1), 28-39. doi: 10.17810/2015.89

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

Cromley, J. G., Perez, T. & Kaplan, A. (2016). Undergraduate STEM achievement and retention: cognitive, motivational, and institutional factors and solutions. *Policy Implications of the Behavioral Sciences*, 3(1). Doi: 10.1177/2372732215622648

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. Retrieved from http://creativecommons.org/licenses/by/3.0/)

Davis, M. H., Tonks, S. M., Hock, M., Wang, W. & Rodriguez, A. (2017). A review of reading motivation scales. *Reading Psychology*, 0, 1–67. doi: 10.1080/02702711.2017.1400482

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. *Review of Educational Research*, 61 (2), 239-264. Retrieved from https://www.jstor.org/stable/1170536

Dole, J. A., Nokes, J. D. & Drits, D. (2009). *Cognitive strategy instruction*. Retrieved from https://www.researchgate.net/publication/268425680.

Ellis, R. (1994). *The study of second language acquisition*. Oxford: Oxford University Press.

Erten, I. H., Topkaya, Z. E., & Karakas, M. (2010). Exploring motivational constructs in foreign language reading. *Hacettepe University Journal of Education*, 39, 185-196. Retrieved from https://www.researchgate.net/publication/233823490

Getachew, Tatek. (2018). *Assessment of English reading difficulty among grade three learners: The case of Ethio National School* (Unpublished master's thesis). Addis Ababa University: Addis Ababa, Ethiopia.

Gidalew, T. A. & Van den Berg, G. (2018). The relationship between lecturers' beliefs and their actual methods of reading instruction: An Ethiopian case study. *Reading and Writing*, 9(1) a162. Retrieved from http://doi.org/10.4102/.rw.v9i1.162

_____

Griffiths, C. (2004). Language learning strategies: Theory and research. *School of Foundations Studies.* Retrieved from https://www.researchgate.net/publication/268413776

Guthrie, J. T., Wigfield, A., Barbosa, P., Perencevich, K. C., Taboada, A., Davis, M. H., et al. (2004). Increasing reading comprehension and engagement through concept oriented reading instruction. *Journal of Educational Psychology*, 96(3), 403–423. doi: 10.1037/0022-0663.96.3.403

Habók, A. & Magyar, A. (2018). The effect of language learning strategies on proficiency, attitudes and school achievement. *Frontiers in Pyschology*, 8:2358. doi: 10.3389/fpsyg.2017.02358

Karim, S. & Qanwal,S. (2016). A correlational study of cognitive reading strategy instruction and metacognitive reading strategy awareness. *ELF Annual Research Journal*. Retrieved from htt://elf.salu.edu.pk/

Kulo, S. A. & Omulando, C. A. (2014). An investigation into the classroom strategies Employed for reading comprehension ability in secondary schools in Kisumu North, Kisumu county, Kenya. *Journal of Emerging Trends in Educatinal Research and Policy Studies (JETERAPS),* 5(4), 405-409.

Li, H., Gan, Z., Leung, S.O., & An, Z. (2022). The empact of reading strategy instruction on reading comprehension, strategy use, motivation, self-efficacy in Chinese university EFL students. *Sage Open*. doi:10.1177/21582440221086659

Ling, S. (2011). *Investigating Chinese English majors' use of reading strategies: A study on the relationship between reading strategies and reading achievements* (Unpublished (master's?) thesis, Kristianstad University, Sweden).

Macaro, E. (2001). *Learning strategies in foreign and second language classrooms*. London and New York: Continuum.

Manoli, P. G. (2013). *Developing reading Strategies in elementary EFL classroom* (Unpublished doctoral thesis). University of Thessaly, Volos, Greece.

Mebratu, Mulatu. (2014). Cognitive reading strategy training and its effects on EFL learners' com comprehension skills: The case of high school learners. *International Journal of Research* (IJR),1(4).

MoE. (2003). *English for Ethiopia: Student textbook , Grade 9*. Pearson

Moore, A. L. (2015). A research review of cognitive skills, strategies, and interventions for reading comprehension.

National Reading Panel. (2000, April). Report of the National Reading Panel: Teaching children to read. Washington, DC: National Institute of Child Health and Human Development, National Institutes of Health, U.S. Department of Health and Human Services. Retrieved from: www.nichd.nih.gov/publications/nrppubskey.cfm

O'Malley, J. M. & Chamot, A. U.. (1990). *Learning Strategies in Second Language Acquisition*. Cambridge: Cambridge University Press.

Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. Boston: Heinle/Thomson Learning.

Oxford, R. L. (2003). Language learning styles and strategies: an overview. Pp. 1-25.

Oxford, R. L. (2017). Language learning styles and strategies: an overview: Self-regulation in Context (2nd ed.).

Pawlak, M. & Oxford, R. L. (2018). Conclusion: The future of research into language learning strategies (special issue). *Studies in Second Language Learning and Teaching*, *SSLLT, 8* (2): 525-535. doi: 10.14746/ssllt.2018.8.2.15

Raftari, S. Seyyedi, K. & Ismail, Shaik Abdul Malik M. (2012). Reading strategy research around the world. *International Journal of Humanities and Social Science Invention* , *1*(1), 24-30. Retrieved from *www.ijhssi.org*

Şahan, A. (2012). *Cognitive reading comprehension strategies employed by ELT students. Sosyal Bilimler Enstitüsü Dergisi Sayi, 2*(2), 1-22.

Saks, K. , Leijen, Ä. , Täht ,K. (n.d). *Language learning strategies of EFL learners and their effects on learning outcomes*. Pp. 305-308.

Seid, Mohaammed. (2017). The effects of cooperative learning on general secondary school student's reading comprehension achievement. *International Research Journal of Humanities, Language and Literature, 4*(3), 12-34. Retrieved from www.aarf.asia

Senturk, B. (2015). EFL Turkish university students' attitudes and motivation towards   reading in English. *Procedia Social and Behavioral Science*, 199, 704-712. Retrieved from www.sciencedirect.com

Smith,C., Stone, R. and Comings, J. (2012). Literacy Policy and Practice in Ethiopia: Building on the TELL Program and EGRA Results (Field Study Report Produced by American Institutes for Research, AIR).

Suyitno, I. (2017). Cognitive strategies use in reading comprehe and its contributions to students' achievement. *IAFOR Journal of Education*, 5 (3).

Torudom, K. & Taylor, P. (2017). An investigation of reading attitudes, motivation and reading anxiety of EFL undergraduate students. *Learner Journal :Language Education and Acquisition Research Network Journal*, 10(2). Retrieved from files.eric.ed.gov/fulltext/EJ1229632.pdf

Uztosun, M. S. (2015). Review of teaching and researching language learning strategies. *Eurasian Journal of Applied Linguistics (EJAL)*, 1, 99–104. Retrieved from http://creativecommons.org/licenses/by-nc-nd/4.0/.

Yaman, I. & Çakici, D. (2013). The effect of cognitive and compensation strategy instruction on reading comprehension skill. *ResearchGate, 32*(2), 369-384

Yenus Nurie. (2018). Conceptualizing reading to learn: Strategy instruction and EFL students' reading comprehension. *International Journal of Curriculum and Instruction, IJCI,* 10(2), 93–117. Retrieved from ijci.wcci-international.org

Zarei, A.A., & Elkaei, A. (2013). The effect of motivation on the choice of language learning strategies. *International Samanm Journal of Businnes and Social Sciences*, 1(1), 51-63.