EFFECTS OF COGNITIVE READING STRATEGY TRAINING ON GRADE 9 STUDENTS' READING PERFORMANCE, METACOGNITIVE AWARENESS AND READING MOTIVATION

BY

DENEKE MADEBO ULORE

ADDIS ABABA

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A DISSERTATION SUBMITTED TO THE DEPARTMENT OF FOREIGN LANGUAGES AND LITERATURE IN FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY (PhD) IN ENGLISH LANGUAGE TEACHING (ELT)

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Deneke Madebo

A Dissertation Submitted to the Department of Foreign Languages and Literature in Fulfilment of the Requirements for the Degree of Doctor of Philosophy (PhD) in English Language Teaching (ELT)

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Declaration

I, the undersigned, declare that this thesis is my original work and has not been presented for a degree in any other university, and that all sources of materials used for the thesis have been duly acknowledged.

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Abstract

This study investigated the effects of cognitive reading strategy training on reading performance, metacognitive reading strategy awareness and reading motivation of Grade 9 students. The study aimed at testing explicit/implicit theories of cognitive reading strategy instruction. A quasi-experimental design was used to examine differences between two randomly selected intact groups. A quantitative approach was applied to gather data. Among the variables, strategy awareness and reading motivation were examined to see if they were predictors of reading performance. A teacher-made pre-test (25 items) and a parallel teacher-made post-test (25 items) and two questionnaires were administered. The Metacognitive Awareness of Reading Strategy Inventory (MARSI) of the strategy awareness questionnaire consisted of 30 items; the Foreign Language Reading Attitudes and Motivation Scale (FLRAMS) of reading motivation questionnaire consisted of 31 items. Data were gathered from 100 students through the tests and the questionnaires. The results showed statistically significant difference between each group's pre-test and post-test scores of reading performance (p=.000) and (p=.000) of experimental and control groups, respectively; there was a strong and positive relationship between the pre-and post-test scores of each group. Although the p-value for both groups was less than .001, the experimental group made increment of reading performance after the explicit strategy training; whereas, the control group made the opposite, decrement of reading performance after the implicit strategy training. Both groups did not show significant changes of strategy awareness. However, the experimental group showed a significant change of reading motivation (p= .006) after the group received strategy training, unlike that of the control group (p= .606). The study concluded that training cognitive reading strategy explicitly empowered students to outperform reading comprehension and vice versa and increased students' motivation of reading though it could not change students' strategy awareness; however, students' strategy awareness and their reading motivation could not be significant predictors of reading performance. This findings imply that due attention should be given to enhance explicit approach of cognitive reading strategy teaching over implicit approach so as to improve students' performance of reading.

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List of Acronyms

DfI: Item Difficulty Level (Index)

DI: Item Discrimination Index

FLRAMS: the Foreign Language Reading Attitudes and Motivation Scale

MARSI: Metacognitive Awareness of Reading Strategy Inventory

MoE: Ministry of Education

MTD: Management Training and Development

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CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

Reading is much related to effective communication that human beings desire to achieve in life. In fact human beings in the globe desire to ensure quality of life and this is related to effective communication of individuals. In this regard, scholars argue that the quality of life is directly related to the quality of communication (Brooks & Wilson, 1978; Wambui et al, 2012). As MTD Training (Management Training and Development) (2010) and Oxford (2017) indicated, one of the inevitable aspects of ensuring quality of communication in one's life lies at the centre of using effective language skills and its subsystems such as listening, speaking, reading, writing, grammar, vocabulary, pronunciation and pragmatics. This means that learners need to improve their basic language skills (Al-khraesheh & Ali, 2023). On this basis, responsible researchers have ever investigated potential areas of improving these skills and recommended ways of attaining improved communication through improved language skills, particularly reading. Reading is, in fact, one of the major aspects of human communication (Oxford, 2017). Improved reading is, then, an essential and potential language tool to attain effective communication and improved life.

Although reading is a "far more complex process" (Dole, Duffy & Pearson, 1991) influenced by cultural and individual factors (Oxford, 2017), it is an essential language tool that enables readers to extract meaning from written texts for better understanding (Habók & Magyar, 2019). To extract required meaning from written texts, then, empowering readers, particularly students in all educational levels, is a crucial agenda of scholars in the field (Oxford, 1990; Dole Duffy, Roehler & Pearson, 1991). Because of this importance of reading ability, scholars in the field of language learning and teaching have suggested reading strategies for the last four decades.

As learning, to comprehend written texts, demands effective use of learning strategies, scholars in the field have been searching for potential reading strategies until today. As Griffiths (2004) stated, researchers such as Rubin (1975) and Stern (1975) carried out their pioneering work of language learning strategies in the mid of 1970s. Since then, there has been awareness that reading strategies have potential to be an extremely powerful learning tool (O'Malley, Chamot, Stewner-Manzanares, Kupper, & Russo, 1985 in Griffiths, 2004). Since reading comprehension has been distinctively important in all contexts such as L1, L2 and FL learning, the ways to enhance reading comprehension or reading strategies are of great interest in the field of reading research (Zare & Mobarakeh, 2011). Thus, scholars in the field have recommended variety of reading strategies accordingly.

Researchers such as Oxford (1990); O'Malley and Chamot (1990) and Cohen (1996) have identified different reading strategies that can help students to ease their difficulties of reading comprehension. These scholars agree that cognitive strategies are described as direct strategies because they are much related to the practical aspect of active reading processes. Reading strategies that have been specifically identified (including metacognitive and social/affective strategies) and that successful language learners use can also help less effective learners in that they may benefit from applying the same strategies in their own reading comprehension (Paredes, 2010).

Studies show that, among other language learning strategies, both cognitive and metacognitive reading strategies are inevitable to comprehend texts and communicate effectively. In line with this, Ling (2011) argues that both cognitive and metacognitive reading strategies significantly correlate with reading achievements and both of them play considerable roles in reading comprehension. In this sense, reading comprehension requires

metacognitive reading strategies, that is, the knowledge of cognitive strategies as well as effective use and control over them (Oakhill & Cain, 2007 cited by Moore, 2015).

Effective use of cognitive reading strategies and awareness of metacognitive reading strategies can have motivational effect on learners' reading comprehension. In this regard, Oxford (2003) forwards her advices that in evaluating the success of any strategy instruction, teachers should look for individuals' progress toward language proficiency and for signs of increased motivation. As Oxford (2003) indicated by citing Nunan (1997), studies showed that strategy instruction has led to increased EFL learning motivation. In addition, 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 (Lunt, 2000; Oxford, 1989; Oxford & Nyikos, 1989; Politzer & McGroarty, 1985) cited in Paredes (2010).

The related effect of cognitive, metacognitive and motivational strategies of reading comprehension indicates that training learners of all grade levels is paramount. In relation to this, Oxford (2003) pointed out 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 for and conducting, in this case, cognitive reading strategy training. Research shows that training learners and helping them to increase their comprehending ability to be competent at reading a second or foreign language is of great importance (Chamot, 2005; Macaro, 2001). As Macaro (2001) assures, one of the main purposes of language teaching and learning is for students to become increasingly competent at reading a second or foreign language. Thus, training learners to be strategic at

reading is required as trainings of reading strategies are aimed at improving learners' reading comprehension.

In addition to the importance of the identifying strategies for the success of reading comprehension, how to use reading strategies needs to specify and this is of paramount, particularly for students in all grade levels. To enable learners to apply reading strategies as required and be successful in reading, their awareness needs to be raised. However, as there are two modes of strategy teaching: explicit and implicit (Oxford, 2011), how to achieve this may be controversial between scholars who argue for implied teaching of reading strategies and those who favour for explicit instruction of reading strategies.

Researchers argue for and against explicit and implicit instruction. As the Institute of Education Sciences (2010), in Moore (2015), indicated, explicit strategy instruction is associated with improved reading comprehension outcomes. 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 optimum development of reading comprehension skill. On the other hand, several scholars, as Oxford (1990) indicated, argue that implicit instruction is more important than explicit instruction. Such scholars demonstrate "how active learning techniques implicitly stimulate the use of language learning strategies" (Oxford, 1990, p. 232). As Carver (1987) in Dole, Dole, Duffy, Roehler and Pearson (1991) suggested, comprehension strategies should (perhaps can only) be learned indirectly. In case of implicit instruction, strategy training is overtly included through active language learning. This controversy of explicit and implicit training can be minimized through investigation.

Research has shown ample reasons for paying due attention for improving reading ability in English language in secondary school. In secondary school, reading comprehension provides basis for a substantial amount of learning (Kirsch et al., 2002 cited in Guthrie et al, 2004). Beyond this, being successful in reading comprehension has been an issue not to be aside and is a crucial agenda in the world of English language and its development in industry, economy, science and education. This is also true in Ethiopian English language learning context. In fact, research report shows learning English language in Ethiopia is considered to be for life learning (Smith, Stone & Comings, 2012). In Ethiopia, English is taught as a subject starting from early grades and used as a medium of instruction in secondary schools and higher education levels (Ermias and Taye, 2022). Thus, being able to read in English to make learning easier and to comprehend written texts better in today's rapidly developing and getting globalized world is indispensible. On this significant basis, learners' needs and their learning strategies have ever attracted researchers' attention to help, particularly, secondary school learners to be strategic and successful readers.

Secondary school students face serious problems of reading comprehension. 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 (KNEC Report 2011; Lei, 2010; Masinde, 2005 cited in Kulo & Omulando, 2014). According to Diller (2007) and Hodgson (2008), cited in Kulo and Omulando (2014), in spite of teachers' efforts to improve students' understanding 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. As Agak (1995), quoted by Kulo and Omulando (2014), indicated, there is a great concern among educators that students' reading is declining at an alarming rate. Scholars such as Dymock (2005) agree that students' reading ability becomes weak when they complete secondary schools without acquiring required reading comprehension practices.

Students' weakness in reading ability is true also for Ethiopian secondary schools. Concerning this, Ethiopian Ministry of Education complains for poor English grades in last secondary school leaving examinations because secondary school students are weak mainly in comprehending ability. For instance, the study of CEEB (2024), a research conducted by Central Ethiopia Regional State Education Bureau, showed that students scored the least average in English in secondary school leaving examination of 2024 in relation to the scores of other subjects. Only 26.9% of the students who took English examination in the same year scored half and above in English, and this average score was nearly equal to the average score (26.8%) of Mathematics in the same examination year. According to the study, English score was the second least result. As this study showed, reading ability of students in the current study area played considerable roles for their poor scores. This indicates that developing comprehending ability deliberately and systematically in secondary schools is inevitable and expected (KIE 2006 cited in Kulo & Omulando, 2014) not only in different parts of the world but also in Ethiopia, particularly in the current study area, Central Ethiopia Regional State, Hosanna.

Comprehending ability is, then, at the centre of the effective use of required reading strategies duly. In this regard, to extract appropriate meaning from written texts in the target language, cognitive reading strategies play considerable roles (Karim & Qanwal, 2016). These strategies are useful tools to extract meaning from texts as they are mental processes that help readers understand text, construct meaning, and create knowledge structures (Zeleke, 2014). As a result, scholars in the field of learning English as a second or foreign language have attempted to fill visible gaps for the last four decades by searching for appropriate approaches of reading comprehension.

Reading performance depends on strategy training. It depends, among other issues, on reading strategy training that learners obtain in their context of language such as first/second/foreign language (Manoli, 2013). Literature shows that cognitive reading strategies are considerably useful in increasing learners' reading comprehension in every context of English language learning. However, this does not mean that the same reading strategies are always applied by different students in the same way in different English language learning contexts. Practical differences, for example, exist between English as second language and English as foreign language. Green and Oxford's (1995) study of learners of English in Puerto Rico, cited in Oxford (2003), showed that more successful students used strategies for active involvement more frequently than did less successful learners.

Language learning environment is considered as an important factor in reading comprehension. For example, Green and Oxford's (1995) commented in their review that the number and type of learning strategies differed according to whether the learner was in a foreign language environment or a second language setting. These researchers claim that second language learners generally employ more strategies (with a higher frequency) than do foreign language learners. Moreover, in their review of 27 studies on the teaching of cognitive and metacognitive reading strategies for second/ foreign language learners, Ali and Razali (2019) showed that through the process of reading, the learner becomes an active participant in producing an interaction with the writer of the text by using various reading strategies; however, building such a connection between the reader and the written information of the text is complex and it can be quite difficult for students of English as a foreign language to apply different types of reading strategies. Regarding this, Raftari, Seyyedi, and Ismail (2012) strongly argue that the lack of a clear cut definition of reading strategies is largely due to the way the term has been used in different contexts such as first language, second language, or foreign language learning. This reveals and it is likely to argue that teachers need to keep updating their teaching methods of reading strategies to

meet the target language students' needs in the use of right cognitive reading strategies in the contexts the students are learning. Pawlak and Oxford (2018) argue that the contexts in which language learning strategies are explored deserves attention in the future research because they believe that it is of paramount importance to strike between the broader contexts (such as foreign versus second) in which strategy studies are conducted the different educational levels and types of programmes within these contexts.

On the contrary, several studies show that reading strategies do not depend on the context. In this regard, earlier studies such as of Saks, Leijen and Täht (n.d) concluded that, though cognitive strategies have direct effect on all four language competences, the effect of learning strategies on learning outcomes does not depend on the learning context, but are transferrable to other foreign language learning contexts. In line with this, a study of Anderson (2003) cited in Raftari, Seyyedi, & Ismail (2012) answered two questions concerning differences existed between ESL and EFL contexts and concluded that perhaps the EFL/ESL distinction is diminishing. These scholars claim that the traditional dichotomy between EFL and ESL may not be as important today as it has been in previous years. This controversy of language learning context has continued (Pawlak & Oxford, 2018; Ali & Razali, 2019) and indicates that reading strategies to be applied by the students of a foreign language setting need due and further consideration of investigation.

In addition to the problems secondary school students face in reading, the controversy of setting difference between scholars needs further attention. As discussed earlier, this is true in every setting and urges to conduct cognitive reading strategy instruction in Ethiopian secondary school context. Cognitive reading strategy training is a method of teaching strategies to help readers continue reading when comprehension is challenged. These strategies can help readers improve their reading performance. Therefore, this study investigates the effects of explicit / implicit (conventional) modes of cognitive reading

strategy training on students' reading performance, metacognitive reading strategy awareness and reading motivation in the context mentioned.

1.2 Statement of the Problem

In addition to the issue of setting difference, literature shows research gaps. A research gap in the literature is noticed in that the influence of cognitive reading strategies on reading comprehension has not been differentiated clearly. Dole, Nokes & Drits (2009), for instance, argue that they 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 treated cognitive and metacognitive studies together as cognitive strategy instructional studies. Moreover, a recent review of 27 cognitive and metacognitive reading strategy studies reviewed by Ali & 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; that is why Wangari (2018) treated metacognitive reading strategies such as problem-solving reading strategy use, global reading strategy use and support reading strategy use as cognitive reading strategies. In spite of this, the findings of Saks, Leijen and Täht (n.d) confirmed that cognitive strategies have direct effect on reading comprehension; whereas metacognitive strategies have indirect effect on it.

From the 27 reviewed studies mentioned above, which were carried out from 2009 to 2017, only five were devoted to treat cognitive reading strategies separately; whereas the others were about metacognitive or both cognitive and metacognitive reading strategies not separately. From 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, local studies indicate that further investigation of cognitive reading strategies is needed (Abiy, 2012; Mebratu, 2014; Dawit, 2014; Belilew, 2015; Tekle and Nchindila, 2017; Seid, 2017; Getachew, 2018; Gidalew and Van den Berg, 2018; Yenus, 2018; Benti, Temesgen & Alemayehu, 2017; Chanyalew, 2019).

To investigate the effects of cognitive reading strategy training, ample evidence is noticed in the literature. In addition, the results of both single strategy studies and multiple strategy studies reviewed by Dole, Nokes & Drits (2009) showed inevitable evidences to carry out further investigation on the effect of cognitive reading strategies on reading comprehension. The findings of single strategy studies showed that average and poor readers in the experimental group answered significantly more questions correct than their counterparts in the control group; however, there was little difference in scores between good readers in the two conditions. Moreover, significant differences were not found between experimental and control groups on two standardized test measures in the findings of multiple strategy studies. These research reviews show that a further examination of cognitive reading strategies is unavoidable.

As studies show, the statistical significance of the effect of cognitive reading strategies on reading comprehension between treatment and comparison groups is controversial until today. In connection to this, Suyitno (2017) describes that the use of cognitive reading strategy has a positive or negative contribution to the results of reading comprehension depending on the accuracy of the selection of strategy in accordance with the text to be read. The researcher further describes that students have varying abilities in reading

comprehension and use various cognitive strategies in understanding text reading. Similarly, cognitive strategies for reading comprehension skill makes a statistically significant difference in the students' reading performances (Ibrahim and Saman, n,d). On the other hand, findings of different studies show that there are differences in the types and frequency of strategies used by the participants both as groups and individually (Ibrahim and Saman, n.d). Regarding this, Dole, Nokes & Drits (2009) concluded, based on their review of various studies, that it is unclear what part of cognitive strategy instruction plays in the total reading comprehension curriculum and how that plays out at different age and grade levels.

Accordingly, considerable studies show discrepancies of the effect of cognitive reading strategies on reading comprehension. A quasi-experimental study carried out in elementary EFL context in a treatment and a control groups by applying a multiple-strategy instruction by Manoli (2013) revealed that the interaction between students' reading proficiency and reading performance after strategy instruction was not found to be statistically significant. Similarly, there was little difference in scores between good readers in the two conditions (treatment and control) in various studies (Dole, Nokes & Drits, 2009). The findings of the study of Yaman and Çakici's (2013) of the effect of cognitive and compensation strategy instruction on reading comprehension skill at a university ELT programme shows that no statistically significant difference is found between the pre-and post-test scores of the students in the two groups. During the treatment process of 12 lesson hours within eight weeks, the experimental group was trained to use three cognitive strategies, namely, 'getting the idea quickly', 'taking notes' and 'highlighting' for reading comprehension skill. It is possible to say how these strategies work for secondary school students has not been researched, particularly in Ethiopian EFL learning context.

On the contrary, studies show that strategy use is correlated with reading successes. In relation to this, studies of Oxford and Burry-Stock (1995) cited by Barjesteh, Mukundan and Vaseghi (2014) revealed that strategy use correlated generally with learning success. In addition, it has been found that there is a relationship between success and a preference for certain kinds of strategies that are used by good language learners (Naiman et al., 1978/1996, cited in Macaro, 2006). The findings of a think-aloud technique study consisting of six Malesian university participants by Ibrahim and Saman (n.d) showed that there were differences in the types and frequency of strategies used by the participants both as groups and individuals. The study was carried out to identify and compare the cognitive reading strategies employed by students who had undergone a reading course (three participants) and students who had not undergone a reading course (three participants). In Şahan's (2012) study, 26 reading comprehension strategies, categorized under eight themes, were identified through think-aloud protocols from 28 university participants, and the findings showed that good readers were strategic readers and that less successful readers could also benefit from such instruction in order to become effective readers. Although it had been conducted in university level, this study revealed that reading strategy instruction positively affected students' strategy use and they could benefit from such instruction by learning various strategies to employ and by evaluating their own reading performance while reading. As various studies done in different countries in the world show, cognitive reading strategies have positive impacts on the reading development/ comprehension performance (Aksan & Kisac, 2009; Ling, 2011; Khezrlou, 2012; Mebratu, 2014; Bahremandjooy, 2014).

As it has been discussed in the foregoing sections, further investigation on cognitive reading strategies is needed. In other words, research results indicated a need to investigate the current practices in reading comprehension instruction (Moore, 2015). As Uztosun (2015) strongly agrees, these research gaps could be addressed in future studies. That is

why Pawlak & Oxford (2018) indicated in their suggestion of future research direction that the link among strategies in foreign language needs to be investigated.

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In addition to the theoretical and research gaps noticed in the literature and described above, local studies related to students' reading performance indicate the need for further investigation in Ethiopian secondary schools. To identify the research gap of the present study, both indirectly and directly related local works contributing to learners' reading comprehension development have been briefly reviewed. Accordingly, some of the related studies to reading comprehension/ performance include the following.

Firstly, Abiy (2012) conducted a study (in Bahir Dar) to determine whether or not motivational beliefs and self-regulated learning strategies were significant predictors of high school students' reading performance. The subscales for the cognitive learning strategies of the study were cognitive strategies (memorization, elaboration and organization) and metacognitive self-regulation (planning, monitoring and evaluating). Questionnaire, interview and tests were used to collect data from 107 students. Abiy's study is different from the present study in many aspects such as setting, variables, purpose and research design and methodology.

Secondly, Mebratu (2014) carried out a study (at Wolkite Town) to assess the effect that cognitive reading strategy had on the EFL learners' comprehension skills. More specifically, it focused on identifying the extent of high school EFL learners' use of cognitive reading strategies, deciding which cognitive strategy were more applicable in EFL classroom and examining whether cognitive reading strategy training reasonably improved the learners' comprehension skills (in two different groups) or not. In addition to a questionnaire administered for 120 Grade 10 students in both groups, reading skill tests

were employed before and after the cognitive strategy training for the experimental and control groups. Mebratu's study seems to be vague notably. For one thing, the experiment applied and the duration it took has not been indicated. For another, the cognitive reading strategies included/excluded in the study were not specified; moreover, metacognitive reading strategies were also considered as cognitive strategies unidentifiably. As true to Mebratu's study, merging cognitive and metacognitive reading strategies was the trend of the earlier researchers, particularly at the time when research on reading strategies was immature (Dole, Nokes & Drits, 2009). Further, the purpose of Mebratu's research differs from the purpose of the present research.

Thirdly, Dawit (2014) conducted a quasi-experimental study. A total of 65 students in two intact groups were taught. This study aimed at examining the effect of an explicit reading strategy instruction on students' reading comprehension of Grade 8 students in a public school. Similar to Mebratu's, Dawit's study did not specify which strategies were explicitly taught to the treatment group. Moreover, unlike the present one, Dawit's study did not actually touch cognitive aspects of reading strategies.

Fourthly, Belilew (2015) conducted a study to find out the rate of recurrence of reading strategy use and figure out the possible relationship between reading strategy use and reading comprehension among Dilla University second year English majoring students. A reading strategy inventory and a reading comprehension test were utilized to collect the required data from forty EFL learners participated in the study. This study assessed (without training) university level students with diverse backgrounds, which can affect learners' reading performance.

Fifthly, Benti, Temesgen and Alemayehu (2017) conducted a quasi-experimental study to find out the effect of reading strategy training on students' academic reading achievement of Grade 9 students in two different schools in Oromia Region. Forty six students were involved in the control group from Yukiro High School and 52 students in the experimental group from Firi Gemta Gera High School participated. A pre-test before the treatment and a post-test of reading comprehension after the treatment were given for both groups to compare their results and find out their differences. The single objective stated in this study indicated that cognitive reading strategies were not focused among other issues or cognitive reading strategies were ignored or merged in the study.

Lastly, Rahel, Tekle and Alemayehu (2018) carried out a quasi-experimental study for Master's degree fulfilment. Their study focused on the effects of explicit cognitive reading strategy training on reading comprehension achievement of Grade 11 students at Jimma Preparatory School. Although the researchers concluded that explicit strategy training had more positive effects on reading comprehension achievement than implicit reading strategy, the study lacked scientific research procedures. This study claimed to cover 15 strategies (both cognitive and metacognitive strategies merged) within 10 sessions of 45 minutes (a total of about 7 hours) of intervention. It also claimed to use pre-test and post-test though perhaps the same test was used in both cases; it should have been two different (parallel) tests. Another important point is that there was statistically strong difference (p-value = .001) between experimental and control groups before the groups received strategy training; the mean score of the experimental group was higher than the mean score of the control group in the pre-test. This means that the two groups were different before the received strategy training or, in other words, two incomparable groups of reading ability were compared; as a result, the findings resulted in illogical conclusion.

Although all the local studies reviewed above had their own purposes, research designs and methodologies, research contexts and participants' levels, they were different enough from the present research. The present research gave due attention to investigate effects of explicit cognitive reading strategy training on reading performance. The study also attempted to address students' metacognitive reading strategy awareness and reading motivation on their reading comprehension. As far as the researcher was concerned, no research had attempted to examine all these variables in experiment, even in a single study at a secondary school level. Therefore, there was a need for clarification of the role of cognitive reading strategies in English as a foreign language reading comprehension from both an empirical and a theoretical standpoint.

There were reasons to conduct this research at Hosanna Town for Hadiyyisa/Amharic speaker students. For one thing, unlike other areas of Hadiya Zone, students of Grade 9 in Hosanna used both Hadiyyisa and Amharic languages; Hadiyyisa was dominant in other parts of the zone. For another, as a teacher in the area, the researcher had ample experiences that secondary, particularly Grade 9 students faced reading comprehension challenges of English texts. In addition, the researcher believed that carrying out this research at Hosanna town could ease some of the researcher's burdens and facilitated the research processes, particularly in terms of gathering data.

1.3 Objectives of the Study

1.3.1 General objective

The main objective of this study was to investigate the effects of explicit/implicit cognitive reading strategy training on reading comprehension, metacognitive reading strategy awareness and reading motivation of Grade 9 students. Specifically, the study focused on the following objectives.

1.3.2 Specific objectives

The specific objectives of the study were:

- to examine if there is a significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their reading performance.
- to see if there is a significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their metacognitive reading strategy awareness.
- to investigate if there is a significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their reading motivation.
- to examine whether or not metacognitive reading strategy awareness and reading motivation are predictors of reading performance when students are trained cognitive reading strategy explicitly/implicitly.

1.4 Research Hypotheses

Four of the non-directional (two-tailed) hypotheses, both H0 (Null Hypothesis) and H1 (alternative Hypothesis), of the study have been stated as below.

Hypothesis 1

H0: There is no significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their reading performance.

H1: There is a significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their reading performance.

Hypothesis 2

H0: There is no significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their metacognitive reading strategy awareness.

H1: There is a significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their metacognitive reading strategy awareness.

Hypothesis 3

H0: There is no significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their reading motivation.

H1: There is a significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their reading motivation.

Hypothesis 4

H0: When students are trained cognitive reading strategy explicitly/implicitly metacognitive reading strategy awareness and reading motivation are not predictors of reading performance, and both of them are weak in predicting.

H1: When students are trained cognitive reading strategy explicitly/implicitly metacognitive reading strategy awareness and reading motivation are not predictors of their reading performance, and both of them are weak in predicting.

1.5 Significance of the Study

This study could be useful in several ways. Firstly, it could be useful for students of Grade 9 in that it might suggest appropriate method of teaching cognitive reading strategies. If

students of Grade 9 are aware of the benefits of being taught cognitive reading strategies explicitly rather than conventionally (implicitly), they can improve their reading performance. In other words, students of Grade 9 can be benefited if they are taught cognitive reading strategies in better ways; they can monitor their comprehension and be motivated to read in English. Secondly, it could inform English teachers why to teach cognitive reading strategies, which cognitive reading strategies to focus on and how to teach them. Specifically, English teachers can be aware of teaching cognitive reading strategies explicitly and can act accordingly; this can, in turn, help students in improving their reading performance considerably. Thirdly, it could inform curriculum designers to include explicit approach of cognitive reading strategies teaching in Grade 9 English reading materials so as to boost learners' reading comprehension. Lastly, explicit approach of cognitive reading strategy training exceeds over conventional method and this could add something valuable to the existing knowledge of the reading education world and be additional basis for further researches in improving reading education.

1.6 Scope of the Study

This quasi-experimental study was confined to Grade 9 students of Hosanna Town in Hadiya Zone of Central Ethiopia, formerly, Southern Nations, Nationalities and Peoples in Ethiopia. Theoretical and research gaps as well as the researcher's personal experience described earlier initiated to conduct this study on the target issue in Ethiopian secondary school, particularly Grade 9 in mentioned town.

The study was confined to Grade 9 not only because literature showed that secondary school students were weak in reading comprehension but also Grade 9 is the beginning of secondary school and students of this grade come from different primary schools with different backgrounds. If students of Grade 9 are trained cognitive reading strategies in appropriate way, it can be a turning point for secondary school students in improving their

reading ability. According to the researcher's experience and belief, this seemed to be true for the students of Grade 9 of Hosanna Town.

Two intact groups of Grade 9 of one of the four secondary schools in Hosanna Town were taken as a sample of the study. One of these was experimental group; whereas the other one was control group. The groups were randomly assigned as experimental and control groups.

The experimental group was trained explicit cognitive reading strategies; whereas the control group was taught implicit cognitive reading strategies using the materials in the current English textbook of Grade 9 (Bailey, 2003). The strategy training of the groups consisted of three subgroups (six sub subgroups) of cognitive reading strategies. These were practising (repeating), analysing and reasoning (reasoning deductively and analysing expressions) and creating structure for input and output (taking notes, summarizing and highlighting). These cognitive reading strategies were taught in a combined approach of strategy training.

The other seven strategies out of the 13 total cognitive reading strategies identified in the literature review section were excluded from the scope of this research because of the reasons provided in the literature review section. Explicit cognitive reading strategy training of the study was aimed at examining whether this approach affected reading comprehension directly or indirectly. The training could affect students' reading comprehension indirectly if it affected students' metacognitive reading strategy awareness and reading motivation and this, in turn, could affect reading comprehension.

In addition, all the three metacognitive reading strategy aspects such as planning, monitoring and evaluating were considered in the questionnaire metacognitive reading strategy awareness. Furthermore, the motivation of affective strategies aspect was included. No intervention of the aspects of metacognitive strategies and affective strategies for both the treatment and the control groups was applied. These aspects were examined only to check whether cognitive reading strategy training affected learners' metacognitive reading strategy awareness and their reading motivation, and, in turn, whether these two variables predicted reading comprehension or not.

1.7 Limitations of the Study

This study had some limitations. Out of thirteen reading strategies identified by scholars in the field, only six were included in the study. . If more cognitive reading strategies were to be taught, it would take much time and be costly. The six strategies were taught for fourteen actual hours, or sixteen total hours, within twelve weeks so as to minimize the limitation concerning to the number of the strategies. The strategies included in this study, and, thus, their findings were not treated separately. In other words, the effect of each of the target strategies was not considered solely throughout the study. The study was also limited to two groups, experimental group and control group. Experimental group was taught explicit approach; whereas, control group was taught implicit (conventional) method.

1.8 Definitions of Key Words

Cognitive reading strategies: One that involves mental manipulation or transformation of materials or tasks and is intended to enhance comprehension, acquisition, or retention. Cognitive reading strategies are steps in which the learner interacts with the material to be learned by manipulating it mentally (as in making mental images, or elaborating on

previously acquired concepts or skills) or physically (as in grouping items to be learned in meaningful categories, or taking notes on important information to be remembered).

Metacognitive reading strategy awareness (or simply strategy awareness): This is the awareness of reading strategies that students obtain to plan, monitor and evaluate their reading texts/tasks during reading texts written in English.

Reading motivation: This is the interest of students in or during reading texts written in English language to maintain their reading comprehension.

Explicit cognitive reading strategy training: This refers to explicitly teaching students to apply cognitive reading strategies. It is learning strategy instruction in which students are informed about the value and the purpose of learning strategies plainly. In other words, it is conducting "completely informed training" of cognitive reading strategy in which the value and significance of the strategies are made clear to the most.

Implicit cognitive reading strategy training: This refers to, unlike to explicit training, teaching students cognitive reading strategies indirectly. It is learning strategy instruction in which students are taught reading strategies indirectly (implicitly), without any plain explanations about the strategies.

Pre-self-report/reported: participants' response(s) of questionnaire before the students of this study received cognitive reading strategy training.

Post-self-report/reported: participants' response(s) of questionnaire after the students of this study received cognitive reading strategy training.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.0 Introduction

Chapter two reviews related literature to the study. The chapter has been organized such in a way that it starts from the general concept of reading and ends with the theoretical and conceptual framework of the study. The discussions of the chapter consisted of mainly reading, reading comprehension, reading strategies (historical background), definition, classification and varieties of reading strategies), reading motivation, connections between independent and dependent variables, modes of cognitive strategy training, cognitive strategies identified for training, review of related studies and theoretical framework including conceptual framework of the study. These topics have been discussed in the same order as presented here.

2.1 Reading

Reading is a language skill that enables readers to understand ideas that exist in the mind of writers when these writers, regardless of their residence, put their ideas in print. Reading is essential not only to academic learning but also to life-long learning (National Reading Panel, 2000). For this reason, reading is considered as an essential skill, though a complex one, for success in real life (Paris et al, 2008; MTD Training, 2010; Habók & Magyar, 2019). This success is, however, achieved only if readers could extract meanings from written texts through complex processes and if they could be able to effectively communicate with those writers.

Scholars have forwarded various definitions of this complex skill, reading. It is defined as "understanding, using, evaluating, reflecting on and engaging with texts in order to achieve one's goals, to develop one's knowledge and potential and to participate in society"

(OECD, 2018, p. 11 cited in Habók & Magyar, 2019). This definition involves a number of cognitive and linguistic processes including reading comprehension, that is, the complex interactions between the reader and the text (Habók & Magyar, 2019). The definition of reading also involves metacognitive competencies as the reader thinks, monitors, evaluates or reflects on the text to reach his or her particular goals (Habók & Magyar, 2019). This indicates that reading requires a variety of reading strategies that enable learners to extract required meanings from written texts. As it is the essence of reading, reading comprehension indicated in the definitions need more explanations as presented in the following section.

2.2 Reading Comprehension

Reading comprehension is of paramount in reading education. Since reading comprehension has been distinctively important both in L1, L2/FL learning, the ways to enhance reading comprehension are of great interest in the field of reading research (Zare & Mobarakeh, 2011). This indicates that researchers in the field of reading education give due attention to enhance ways that enable readers process their reading comprehension.

Reading comprehension is not an easy task but an active process of constructing meaning from reading texts. It has been stated in line with this that comprehension is the essence of reading and the active process of constructing meaning from text (Durkin, 1993 in Moore, 2015). It has been mentioned that reading comprehension is a complex interaction among automatic and strategic cognitive processes that enables the reader to create a mental representation of the text (Tian, 2006; van den Broek & Espin, 2012 cited in Moore, 2015). Reading comprehension requires comprehension strategies to attain desired reading goals. For this reason, comprehension strategies are considered as reading strategies (Bouchard, 2005; Zare & Mobarakeh, 2011). These are reading strategies that help readers attain required meanings from reading texts.

Reading comprehension requires both the decoding of words written in a text and the appropriate application of comprehensive metacognitive strategies. This is often described as a constructive process in which readers try to use cognitive and metacognitive strategies to actively increase their comprehension of a text (Kamijo n.d). Thus, reading comprehension demands effective application of reading strategies.

2.3 Reading Strategies

This section of reading strategies of review literature discusses some important aspects of reading strategies. The section highlights the historical background, focuses on the definition of reading strategies and classification as presented below.

2.3.1 Historical background of reading strategies

It is important to review and indicate that reading strategy in language teaching has a short history. Research on language learning strategies started in the 1970s with the exploration of the question of how successful language learners learn (Oxford, 2017). Research on language learning strategies has a history of less than fifty years, and much of this history has been sporadic (Chamot, 2005). However, some argue that the idea of reading strategies goes as far back as 1960s (O'Malley & Chamot, 1990). Since understanding the concept, these strategies have provided insights into how languages are learned (Uztosun, 2015). After this introduction of the concept and the importance of language learning strategies, researchers viewed these strategies considerably for reading texts.

As language learning demands effective use of learning strategies, searching for potential learning strategies has been the responsibility of scholars in the field for considerable

decades. As Griffiths (2004) states, the pioneering work of language learning strategies was carried out in the mid of 1970s by researchers such as Rubin (1975) and Stern (1975). Since then, there has been awareness that these strategies have potential to be an extremely powerful learning tool (O'Malley, Chamot, Stewner-Manzanares, Kupper, & Russo, 1985 in Griffiths, 2004). This view of reading strategy has got due attention of scholars until today.

2.3.2 Definition of reading strategies

Researches on foreign language reading strategy show that reading strategies play considerable roles in developing comprehending ability of readers. This enables learners to easily attain their diverse reading goals in all education levels. In relation to this, different scholars describe reading strategy as one of the language learning strategies that enable learners to be successful in their learning. According to Weinstein and Mayer (1986), cited in Paredes (2010), language learning, in this case, reading strategies affect the way in which the learner selects, acquires, organizes, or integrates new knowledge in language learning context, particularly reading in English.

Scholars define reading strategies in a common sense. Reading 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) that help them attain geared communication. These strategies are believed to have the power of increasing students' reading ability (Paredes, 2010). In this sense, reading strategies are useful tools that help readers to process their reading comprehension effectively. In other words, reading strategies can help readers to use their cognitive skills effectively.

Not only cognitive skills but also cognitive strategies are required for effective understanding of texts. Although cognitive skills are indeed prerequisites for reading comprehension, cognitive strategies are also required (Moore, 2015). As Moore (2015) differentiates cognitive skills from cognitive strategies, cognitive strategies differ from cognitive skills in that cognitive strategies are active, rather than passive, processes. If the strategies that efficient readers use are discovered, general elements are found across different texts which can lead to reading improvement through teachers' focus on those strategies which efficient readers use more frequently (Anderson & Urquhart, 1984). This means that, in addition to cognitive reading skills, cognitive reading strategies are of paramount for reading comprehension

In spite of common concepts, scholars in the field have defined language learning strategies differently based on their understandings and experiences. Accordingly, they define that language learning strategies are learning strategies (Khezrlou, 2012) or, as more recently labelled, they are learner strategies (McDonough, 1999). Learning strategies, in Oxford's (1990) definition, are operations employed by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations. It is possible to understand from these definitions that strategies are purposeful to attain reading goals. They are "purposeful in that readers have to make a choice in the use of a particular strategy" (Dole et al. 2009, p.10). These definitions of scholars in the field indicate that reading strategies are crucial in reading comprehension.

2.3.3 Classification of strategies

Language learning strategies have been classified differently based on the definitions forwarded by different scholars. Although learning strategies are still fuzzily defined and controversially classified (Griffiths, 2004), learning strategy research has identified reading strategies that successful language learners use. Oxford (1990), who is well recognized as a

pioneer in researching and classifying language learning strategies and who has devoted her teaching and research career to the study of this field, categorizes language learning strategies in two broader groups as direct and indirect learning strategies. Oxford further classifies direct and indirect learning strategies into six major groups. For Oxford, memory, cognitive and compensation strategies are direct strategies; whereas, metacognitive, affective and social strategies are indirect ones. Alternative taxonomies have been offered by O'Malley and Chamot (1990) and others. O'Malley and Chamot presented three main strategy groups as cognitive, metacognitive and socio-affective strategies. This goes in line with Bouchard's (2005) comprehension strategies as cognitive, metacognitive and socio-affective strategies. According to Cohen (1996, 2014), reading strategies can be further differentiated whether they are cognitive, metacognitive, affective, or social strategies.

Scholars classified strategies in various ways. Based on the classifications of language learning strategies and their own research findings, researchers have tried to list a wide variety of strategies used and to be used by both native and non-native language readers (Raftari, Seyyedi, & Ismai, 2012). Good readers can make use of variety of reading strategies. Good readers are those who use better strategies; poor readers either give up easily when they face problems or they use inefficient strategies (Lau, 2006 cited in Raftari, Seyyedi, & Ismai, 2012). Although students need various reading strategies, skimming and scanning are traditionally recognized reading behaviours among others (Raftari, Seyyedi, & IsmaSi, 2012) and these two strategies have widely been included in English language learning texts of Ethiopian secondary schools. According to Paredes (2010), these and other specifically identified strategies that successful language learners use can also help less effective learners in that they may benefit from applying the same strategies in their own reading comprehension. Alderson and Urquhart (1984) claim that if the strategies that efficient readers use are discovered, general elements are found across different texts which can lead to reading improvement through teachers' focus on those strategies which efficient readers use more frequently.

Still others classify language strategies differently. Some others classify as that language learning strategies are distinguished from language use strategies in that the former is considered as strategies for the learning of language material for the first time; whereas the latter focuses on strategies for using the material that has already been learned, at least to some degree (Cohen & Weaver, 2006 in Cohen, 2014).

Scholars explained their argument of their strategy classification. To make this clear, Cohen's (2014) argument is evident. Language learning strategies include strategies for identifying the material that needs to be learned, distinguishing it from other material if need be, grouping it for easier learning (e.g., grouping vocabulary by category into nouns, verbs, adjectives, adverbs, and so forth), having repeated contact with the material (e.g., through classroom tasks or the completion of homework assignments), and formally committing to memory whatever material is not acquired naturally through exposure (Cohen, 2014). According to Cohen, "Using the material at whatever the current level of mastery involves at least four subsets of strategies: retrieval strategies, rehearsal strategies, coping strategies, and communication strategies'' (2014, p.13). However, this argument is not conceptually different from the arguments discussed earlier.

The classifications discussed above are similar to others' in same way. For example, Cohen's language learning and use strategies described above are what have been further differentiated earlier according to whether they are cognitive, metacognitive, affective, or social (Chamot 1987; Oxford, 1990 in Cohen, 1996). This mode of strategy classification can be comprehensive so as to comprehend the concept of strategy classifications.

All the classifications of learning strategies forwarded different times by different scholars have a common focus as language learning strategies are crucial to enhance learners' ability of learning. On this basis, it is agreed that strategies that are utilized to promote successful learning can be seen as cognitive, metacognitive, social and affective ones and each of these has its own role to achieve learning goals. To achieve these goals, reading comprehension is one of the vital issues and demands effective application of appropriate reading strategies. Consequently, aspects of cognitive reading strategies, metacognitive reading strategies and reading motivation from affective strategies have been given attention in the present study and reviewed below.

2.3.3.1 Cognitive reading strategies

Cognitive strategy is an important element of reading comprehension. It is one of the several elements of reading comprehension (Moore, 2015). Moore describes that research has identified cognitive strategies as the critical elements in reading comprehension development. These strategies are mental processes that help readers understand text, construct meaning, and create knowledge structures. They might look like memorizing new vocabulary, associating these with images, making contextual guesses about the meaning of some content, or sustaining reading attention (Zeleke, 2014).

As a reading comprehension component, cognitive reading strategy has been given considerable attention in the field of reading research. Researchers such as Oxford (2003) describe the significance of cognitive reading strategies. Cognitive strategies are significantly related to L2/EFL proficiency in studies by Kato (1996), Ku (1995), Oxford and Ehrman (1995), Oxford, Judd, and Giesen (1998), and Park (1994) cited by Oxford (2003), among others. Of these studies, works of Ku (Taiwan), Oxford, Judd, and Giesen (Turkey), and Park (Korea) are specifically in EFL settings. It is possible to understand

from these findings that cognitive strategies need to be considered for reading comprehension.

As mentioned earlier, both cognitive skills and cognitive strategies are inevitable in the comprehension of reading texts. Cognitive strategies differ from cognitive skills because they are active, rather than passive, processes (Moore, 2015). As Moore, although cognitive skills are prerequisites for reading comprehension, cognitive strategies are inevitably required. Cognitive strategies usually involve identification, retention, storage, or retrieval of words, phrases, and other elements of the second or foreign language (Cohen, 1996). Thus, the cognitive skills and processes required for the development of reading comprehension ability need to be identified (Moore, 2015) as they have remarkable roles in reading comprehension. This means that readers need to identify reading skills and strategies that enable them understand written texts as required.

The role of cognitive strategies in reading comprehension has been revealed in several research findings. Learners' use of cognitive strategies, for instance, has been highly correlated with learners' scores in reading skills (AlSohbani, 2018). This results from cognitive reading strategies that work with information in ways that enhance learning (Paredes, 2010). A comprehensive review of research by National Reading Panel (2000) cited by Moore (2015) indicates that several cognitive strategies have contributed to successful reading comprehension. According to the Panel, the coordination of multiple cognitive strategies has improved reading comprehension. Statistically significant differences in cognitive strategy used between high achieving and low achieving students have been observed in the studies. In addition, cognitive strategies have a prominent role because they represent the dynamic mechanisms underlying learning (Gagne, 1985 in Chamot & O'Malley, 1994). This means that, and to be successful in reading comprehension, multiple cognitive reading strategies are recommended.

In addition to cognitive reading strategies, metacognitive reading strategies are vital in reading comprehension. Ling (2011) points out that both cognitive and metacognitive reading strategies significantly correlate with reading achievements and both of them play important roles in reading comprehension. The next section looks into metacognitive roles for effective reading comprehension.

2.3.3.2 Metacognitive reading strategies

As indicated earlier, metacognitive strategy of learning plays a decisive role for effective reading comprehension. Scholars such as Oxford (2003) stated that Metacognitive strategies are often strong predictors of L2/EFL reading proficiency. As Oxford stated, metacognitive strategies are employed for managing the learning process overall. She further explained that metacognitive strategies are used for identifying one's own learning strategy preferences and needs, planning for an L2/EFL task, gathering and organizing materials, arranging a study space and a schedule, monitoring mistakes, and evaluating task success, and evaluating the success of any type of learning strategy.

This explanation of Oxford is based on the definition and classification of metacognitive strategy of learning. In the literature, metacognitive strategy is traditionally referred to as "executive-control and management function" of strategy use, that is, regulating the planning, monitoring and evaluation of strategy use (Oxford, 2017). Thus, metacognitive strategies are considered as planning, monitoring and evaluating strategies. These are metastrategies (Uztosun, 2015) and metastrategies are different from strategies in that they are higher order executive skills (O'Malley & Chamot, 1990 in Paredes, 2010). As Cohen (1996, p.4), "metacognitive strategies deal with pre-assessment and pre-planning, on-line planning and evaluation, and post-evaluation of language learning activities, and language

use events." With regard to utilizing metacognitive reading strategies, Israel cited by Kamijo (n.d) described metacognitive strategies in a similar way as:

> Metacognitive strategies increase readers' meaning construction, monitoring of text and reading comprehension, and their ability to evaluate the text they are reading. Metacognitively skilled readers are readers who are aware of knowledge, procedures, and controls of the reading process. They use this knowledge during the reading process to improve reading and comprehension ability (Israel, 2007, p. 3).

It is possible to understand that metacognitive reading strategies are a set of techniques that help readers monitor their comprehension and think about their reading process:

- Planning: Planning how to approach a text, including setting goals
- Monitoring: Constantly asking yourself if you understand what you're reading, and what the main point is
- Evaluating: Evaluating the effectiveness of your strategies and how well they're working for you
- Using tools: Using tools like dictionaries, taking notes, or highlighting important text
- Activating prior knowledge: Connecting new information to what you already know

Literature shows that cognitive strategies and metacognition work in relation in increasing learners' reading comprehension. Metacognition is commonly referred to as thinking about thinking. In reading, metacognition refers to control of cognitive strategies that help the reader process new information from text (Kuhn, 2000 cited in Moore, 2015). In addition to cognitive strategies, metacognitive use of strategies are positively correlated with reading comprehension scores (Dermitzaki, Andreou, & Paraskeva, 2008 in Moore, 2015). Pressley (2002 cited by Moore, 2015),) also asserts a correlation between students'

metacognition and reading comprehension scores; and Oakhill and Cain (2007 in Moore (2015) discovered that students' ability to monitor their comprehension at age eight significantly predicted their reading comprehension skill at age 11. Research continues to identify metacognition and cognitive strategies as key contributors to reading comprehension development. Therefore, reading comprehension requires knowledge of cognitive strategies as well as effective use and control over them.

To be successful in reading comprehension, in addition to both the effective use of cognitive strategies and the awareness of metacognitive reading strategies, reading motivation is crucial in working together with cognitive processes in the course of reading comprehension. Student cognition and motivation determine student course grades (Cromley, Perez & Kaplan, 2015). Reading motivation has been reviewed in the next section.

2.4 Reading Motivation

Motivation is another factor to increase learners' reading comprehension. Research shows that a number of the strategies can assist in developing motivation (O'Malley & Chamot, 1990). "Reading motivation is a critical contributor to reading achievement and has the potential to influence its development" (Davis et al. 2017, p.1). Students' disengagement, for instance, can have detrimental effects on their reading ability (Baker, Afflerbach, & Reinking, 1996; Guthrie & Wigfield, 1999; Guthrie, McGough, Bennett, & Rice, 1996; Paris & Oka, 1986 cited in Davis et al. 2017). That is why this connection of reading motivation to reading comprehension truly catches researchers' attention.

Reading comprehension depends on reading motivation. Scholars such as Moore, (2015) and Davis et al. (2017) point out that reading comprehension depends on motivation among

many characteristics of a reader, such as prior knowledge and working memory, but also on language processes, such as basic reading skills, decoding, vocabulary, sensitivity to text structure, inferencing, and motivation. As Moore (2015) indicates, motivation can be developed by providing successful experiences and relating strategy use to improved performance. Strategy use is intended to affect learners' affective, particularly motivational state (Weinstein & Mayer, 1986 in Paredes, 2010). Learners' lack of motivation may result from their limited reading strategy skills (Sloat, Beswick & Willms cited in AD-Heisat 2009). On the contrary, reading motivation is increased if students understand that the strategies they are learning are useful and necessary (Dole, Nokes & Drits, 2009). This means that using effective reading strategies and reading motivation are interrelated to enhance reading performance. In fact "Strategies are wilful in that readers must have the motivation to actually use the strategy; knowing how to use it is not enough" (Dole et al. 2009:10). In this sense, readers' motivation is inevitable for effective reading comprehension.

Students' motivational beliefs and their cognitive engagement in classroom academic tasks considerably play enhancing roles of learners' reading achievement. For example, Cromley and Kaplan (2015) confirm that student cognition and motivation determine student course grades, in this case, reading comprehension performance. In this regard, literature clearly indicates this connection between motivation and reading strategy use as stated below:

> The authors reviewed a series of studies they conducted with more than 3,000 college and junior high school students, finding that students who had higher motivation (e.g., felt confident they could do the work in a particular subject) also reported using more reading strategies, such as connecting what they read and what they already know (called elaborating). The authors found that some students know how to use strategies (e.g., summarizing), but do not use them because they lack confidence, interest, or other aspects of motivation. Motivation did not improve achievement by itself, however; it increased

> strategy use, and the strategies increased achievement. These findings suggest that teaching strategies alone is not enough—teachers should create contexts that help students feel confident they can do the work, attribute success to their own efforts, and value learning tasks (Pintrich & Schrauben, 1992, p. 9).

This goes with Oxford's statement. Oxford states that research and practice "both indicate that strategies can increase learners' language proficiency and motivation" (Oxford 1990, p. 236). As a result, Oxford advises in her later work that, in evaluating the success of any strategy instruction, teachers should look for individual progress toward L2 proficiency and for signs of increased motivation (Oxford, 2003). This advice is valuable until today.

Several scholars agree on the multifaceted complexity of reading motivation. According to Davis et al. (2017), several scholars agree that reading motivation is multifaceted and complex. These various aspects of motivation have been indicated by Pintrich and Schrauben (1992) as stated in the foregoing direct quotation. These aspects may include subconstructs such as intrinsic reading motivation, extrinsic reading motivation, social reasons for reading, and value of reading (Wigfield & Guthrie, 1997 cited in Davis et al., 2017). Davis and colleagues believe:

> two separate groups of reading motivation constructs exist. The first group, relating to intrinsic and extrinsic reasons for reading, includes reading attitude, intrinsic value, and reading value. Therefore, a reader who is intrinsically motivated to read may read out of enjoyment of reading, the value of reading, or a positive attitude toward reading. A reader who is extrinsically motivated to read may be motivated by external sources such as grades or recognition. The second group of reading motivation constructs includes self-concept of reading ability and reading self-efficacy. These

> constructs are actually antecedents of reading motivation since they describe the "expectancy of successful reading" (Davis et al., 2017, p. 3).

This quotation makes that reading motivation has various definitions. As Davis et al. (2017) state, there are multiple definitions of reading motivation. According to Guthrie and Wigfield (2000), cited in Davis et al. (2017), reading motivation is defined as personal goals, values, and beliefs of individual with regard to the topics, processes, and outcomes of reading. Thus, considering possible constructs of reading motivation in doing a research is a paramount.

Selecting a suitable reading motivation tool for gathering data is a crucial aspect of this study. As Davis et al. (2017, p. 1) advise, "Educators, researchers, and evaluators need to select the best reading motivation scales for their research and classroom." According to Davis and colleagues, the most commonly used assessment of reading motivation, among the various forms of reading motivation scales, is student self-report and this is fairly easy and quick to assess in a classroom (Davis et al., 2017). Thus, students' self-reported Lickert scale questionnaire is advised to use to gather data related to students reading motivation.

2.5 Connections among Cognition, Metacognition and Motivation of Reading

Strategic processes of reading are required in learning to read. Scholars such as Yovanoff, Duesbery, Alonzo, and Tindal (2005) cited by Moore (2015) reason out that effective use of strategic processes is required because, when students are mature in their comprehension skills, they are able to progress efficiently from the stage of learning to read to the ultimate goal of reading to learn. The goal of reading to learn can be attained if students use cognition skills and if they are motivated in their reading by using comprehension skills. That is why scholars argue that student cognition and motivation determine student course

grades (Cromley, Perz & Kaplan, 2015). This means that reading comprehension requires learning reading strategies and being motivated for reading comprehension. Hence, scholars believe that reading strategies are indistinguishable from cognitive processes related to thinking, reasoning, studying or motivational strategies (Alderson & Urquhart, 1984). This indicates that reading motivation crucial when readers use cognitive reading strategies for effective reading comprehension.

Teaching reading strategies plays considerable roles in enhancing readers' understanding of written texts. In fact, one of the ways of enhancing of students' reading comprehension is teaching reading strategy, particularly cognitive reading strategy because the ultimate goal of strategy instruction is to enhance the language learners' act (Cohen, 2014). When students are trained cognitive reading strategies, they are able to increase their awareness of metacognitive reading strategies and this can in turn help them better understand texts that are being read. In this regard, "The key question for instruction is whether one ought to bother to offer explicit training to improve either comprehension or monitoring strategies" (Pearson & Gallagher, 1983:34). Cognitive strategy training can also improve learners' motivation of reading. It has been stated "Motivation research clearly demonstrates that motivation can be improved by changing instruction" (Cromely, Perez, & Kaplan, 2016, p. 5-7). Therefore, "the best strategy training not only teaches language learning strategies but also deals with feelings and beliefs about taking on more responsibility and about the role change implied by the use of learning strategies" (Oxford, 1990) and, thus, strategy training is especially necessary in the area of second and foreign languages to connect cognition and motivational strategies.

2.6 Cognitive Reading Strategy Training

Reading strategy instruction could be explained in various ways. According to Oxford (1990), training of language learning strategies is many things like "strategy training,"

"learner training," "learning-to-learn training," "learner methodology training," and "methodological initiation for training." This paper uses the term "strategy training" because it is, as Oxford (1990) indicates, both descriptive and general enough to serve the purpose of this research.

Since the importance of language learning strategies were introduced, ample studies of strategy training (instruction) have been carried out in diverse contexts so far. To mention some very recent reading strategy studies, as Habok and Magyar (2019) point out, those learners who apply reading strategies can improve their language proficiency at large. In relation to this, Wu et al. (2021) state that reading strategy training can be an effective way of supporting struggling readers. In this regard, reading strategy training supports students with reading difficulties as cognitive reading strategy training is a method of teaching strategies to help readers continue reading when comprehension is challenged. These strategies can help readers use memory, attention, problem-solving, and understanding of new language, for example.

However, scholars do not agree upon a common method of cognitive reading strategy training. Scholars in the field argue that there has not been an agreed upon method of teaching, in this case, cognitive reading strategies (Yan & Kim, 2023). According to Yan and Kim (2023), inadequate training of reading strategy can contribute to learning difficulties of reading. Local studies reveal that secondary school students have showed poor reading performance (Ermias & Taye, 2022; Geleta et al. 2022), and this maybe because of lack of adequate cognitive reading strategy training.

. Literature indicates that cognitive reading strategies can and should be taught so as to improve learners' reading comprehension. "Strategies can be taught. Students who are

taught to use strategies and are provided with sufficient practice in using them will learn more effectively than students who have had no experience with learning strategies" (O'Malley & Chamot, 1990, p.196). According to Oxford, "Skilled teachers help their students develop an awareness of learning strategies and enable them to use a wider range of appropriate strategies" (Oxford, 2003, p.9). Oxford goes on to explain, "Although we do not yet know all we wish to know about optimal strategy instruction, there is growing evidence that L2 teachers can and should conduct strategy instruction in their classrooms" (p.17). Oxford (2003), in her explanation, indicates that training cognitive strategies of foreign language learners in particular is of paramount. Consequently, the research proposes that strategy instruction should be an essential component of reading comprehension instruction (Anderson, 1999; Grabe, 2009 cited in Gürses & Bouvet, 2016). However, whether to training these strategies implicitly or explicitly may be an important issue to consider.

2.6.1 Implicit cognitive reading strategy training

Research shows both implicit and explicit methods of training reading strategies are available ways to improve students' reading comprehension. Both ways have their own advocates. Advocates of implicit strategy training do not suggest the direct intervention of strategy training, but they state that implicit training researchers obtain information about strategies by asking individuals to report on the things they do that help them learn both retrospectively and concurrently while working on specific tasks (O'Malley & Chamot, 1990 in Paredes, 2010).

Advocates of implicit training of reading strategy forward strong argument. Several scholars, as Oxford (1990) indicated, argued 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 addition,

researchers such as Dole, Duffy, Roehler and Pearson (1991) suggested that, certainly, both younger and older students can learn reading comprehension processes in indirect ways and indirect instruction plays great roles in helping students become better comprehenders. As Carver (1987) suggested in Dole, Duffy, Roehler & Pearson (1991), comprehension strategies should (perhaps can only) be learned indirectly. However, many researchers stand against implicit, but favour for explicit, mode of strategy training.

2.6.2 Explicit cognitive reading strategy training

Another approach taken in cognitive research on reading strategies is to instruct individuals about the importance and use of specific strategies, and determine whether or not the students' learning is improved as a result of strategy use. In this regard, explicit strategy training has been given a considerable place in improving learners' reading performance. Reading strategies research in L2 has also shown that strategies can be taught effectively and that explicit reading strategies instruction tends to improve reading comprehension (Kern, 1989; Shen, 2003; Koda, 2005; Taylor, Stevens, & Asher, 2006 cited in Gürses & Bouvet, 2016). Reading comprehension interventions are effective only when they are explicit and recursive (Mastropieri, Scruggs, & Graetz, 2003 cited in Moore, 2015). As Moore states by quoting the findings of the Institute of Education Sciences (2010) in a comprehensive review of research, there has been a preponderance of evidence that explicit strategy instruction is associated with improved reading comprehension outcomes. Moore indicates that this finding aligns with the recommendations of the review of reading comprehension strategies of the National Reading Panel (2000). Moore concludes by writing that recent research also supports this assertion; the evidence for explicit instruction in reading comprehension strategies continues to mount and research also supports explicit instruction of cognitive strategies for optimum development of reading comprehension skill. In fact, "children must be told when and why to use strategies in order to become agents of their own strategy use" (Dole et al. 2009, p.9), and, as indicated by some scholars, explicit reading strategy instruction is always useful; though, its usefulness varies

according to different factors such as the teaching methods among other variables (Raftari, Seyyedi & Ismai, 2012). “Completely informed training is undoubtedly the best and most effective training technique,” (Oxford, 1990, p 208). This means that students should be provided with complete information about cognitive reading strategies during the strategies are being taught (Chinpakdee & Gu, 2021).

Direct teaching has its own steps. As indicated in American Educational Research Association Review (Paris et al, 1986, p.98), direct instruction interventions often include sequenced steps leading to the targeted skill; instruction of each step with the use of scripts to explain and model. According to this review, a variety of instructional approaches emphasize the value of teaching students about comprehension strategies directly, and positive features of strategy instruction include explicit demonstration, modeling, and explanation about comprehension strategies; informing students directly of the cognitive and motivational characteristics of strategic reading. Since reading comprehension has been distinctively important both in L1, L2/FL learning, the ways to enhance reading comprehension [reading strategies] are of great interest in the field of reading research (Zare & Mobarakeh, 2011).

Recent researches also focused on strategy training. Recent local studies such as of Ermias and Taye (2022), of Geleta et al. (2022) and of Desta and Abebe (2023) have focused on explicit strategy training. As far as the researcher is concerned, earlier studies have not tried to investigate the two reading strategy training modes in experiment. Although Desta and Abebe (2023) taught some explicit reading strategies for the experimental group, they did not try the implicit mode of strategy training. Thus, the argument between implicit and explicit modes of strategy training remains for further investigation as of the current study.

As researchers, as reviewers of reading strategy studies and as studies of both local and abroad indicated, further research of the effects of cognitive reading strategies on reading comprehension is unquestionable. To fill this obvious gap, therefore, the current study aimed at investigating the effect of multiple explicit cognitive reading strategies on reading performance in an experimental approach so that the contribution of the study is original and significant.

As mentioned earlier, six cognitive reading strategies were taught in a combined strategy training approach. Combined reading strategy training approach is different from detached strategy training (Yan & Kim, 2023). In combined approach, students are taught a collection of strategies, in this case, six cognitive reading strategies, and this can help readers to approach challenging tasks (Khellab et al., 2022). Hence, all the six cognitive reading strategies were taught in combination.

2.7 Cognitive Reading Strategies to Train

There are several sets of cognitive strategies. According to Oxford (1990), there are four sets of cognitive strategies, namely, practising, receiving and sending messages, analysing and reasoning, and creating structure for input and output. Oxford explains how to apply this large group of cognitive strategies to reading comprehension. She identifies 13 sub-divided cognitive reading strategies as listed below.

1. Practising

a. Repeating: This strategy is actually essential for reading skill and virtually always includes some degree of meaningful understanding. The strategy of repeating might mean reading a passage more than once to understand more completely. A profitable technique is to read a passage several times, each time for different purposes such as to get main ideas, to predict, to read for detail, to write down questions, to take notes about a reading passage and then review them several times.

b. Recognizing and using formulas and patterns: this emphasizes recognizing and using routine formulas and patterns in the target language greatly to enhance the learner's comprehension. Formulas are analysed expressions while, patterns have at least one slot that can be filled with an alternative word.

c. Practising naturalistically: this means that learners use English language in an authentic way for reading comprehension. The most common medium for reading authentic material is print such as books, magazines, newspapers and the like.

2. Receiving and sending message

a. Getting the idea quickly by scanning and skimming: this means searching for specific details and searching for general ideas, respectively. These two techniques are usually presented in secondary school English textbooks, so they were likely not to be included in the study as especial treatment of cognitive reading strategies.

b. Using resources for receiving and sending messages: this strategy involves using resources such as printed resources as dictionaries, word lists, grammar books, phrase books to find out the meaning of what is read in the new language. Students are expected to use this strategy duly.

3. Analysing and reasoning

a. Reasoning deductively: This is a common and very useful type of logical thinking in reading comprehension. Although sometimes the strategy of reasoning deductively results in overgeneralization errors, it involves deriving hypotheses about the meaning of what is acquired by general means of rules the learner already knows.

b. Analysing expressions: This strategy is known as analysing expressions because it helps learners to understand something written in the new language by breaking down a new word, phrase, sentence, or even paragraph into its component parts. Analysing expressions is more useful for reading because readers have more time to go back and analyse complicated expressions when reading than any other skill. If 'premediated crime' is to be analysed, for instance, it can be broken down into parts as crime (bad act), mediate (think about), and pre (before); thus, the whole phrase can be understood as an evil act that is planned in advance.

c. Analysing contrastively: this strategy is a fairly easy one that most learners use naturally. It involves analysing elements (sounds, words, syntax) of the new language to determine likenesses and differences in comparison with one's own native language. This was not included in the training of cognitive reading strategies as special treatment.

d. Translating: this allows learners to use their own language as the basis for understanding what they read in the new language; it is used early in language learning. This was not focused on in the current study as it might not be much useful for secondary school students.

e. Transferring: this means directly applying previous knowledge to facilitate new knowledge in the target language. Transferring can involve applying linguistic knowledge from the learner's own language to the new language, linguistic knowledge from one aspect of the new language to another aspect of the new language, or conceptual knowledge from one field to another. Transferring works well as long as the language elements or concepts are directly parallel, but most of the time they are not, and it can lead to inaccuracy if students transfer irrelevant knowledge across languages. This was not included in the training of cognitive reading strategies of this study.

4. Creating structure for input and output

a. Taking notes: this is a very important strategy for reading, but learners generally are not taught to use it well, if at all. The focus of taking notes should be on understanding, not writing. Note-taking is often thought as an advanced tool, to be used at high levels of proficiency, developing note-taking skills can begin at very early stage of learning. A metacognitive strategy closely associated with note-taking is organizing, which includes keeping a notebook for gathering new language information and for tracking progress.

b. Summarizing: summarizing is making condensed, shorter version of the original passage to help learners structure new input and show their understanding. Writing a summary may be more challenging than note-taking because it requires greater condensation of thought.

c. Highlighting: supplementing notes and summaries with highlighting is another important strategy to benefit learners. This strategy emphasizes the major points in a

dramatic way through colour, underlining, capital letter, initial capitals, big writing, bold writing, boxes, circles and so on. There is no limit in thinking of ways to highlight.

From the 13 cognitive reading strategies identified and listed above, all the six sub-divided (1a, 3a and b, and 4a-c) cognitive reading strategies were focused on in the current study. The other seven were excluded from the scope of this research because of the reasons provided in their due explanations.

2.8 Review of Local Related Studies

In addition to the theoretical and research gaps noticed in the literature and described above, local researches related to students' reading performance indicate that further investigation on cognitive reading strategies is needed. To identify the research gap of the present study, both indirectly and directly related local works that were supposed to contribute to learners' reading comprehension development needed to be briefly reviewed. Accordingly, some of the indirectly related researches to reading comprehension/ performance included: a case study of effects of teacher mediation on student conceptions and approaches to reading conducted focusing on grade 9 in Bahir Dar by Abiy (2005), interdependence among the reading ability of Amharic as L1, the proficiency of English as L2 and L2 (English) reading ability of Grade 11 students conducted in Bahir Dar by Chanyalew (2019), a case study of three teachers' pedagogical practices in teaching reading comprehension by Yenus (2017), a Grade 9 public and non-public schools students' EFL reading goals in Addis Ababa by Tekle and Nchindila (2017), the effect of cooperative learning on general secondary school (Grade 10) students' reading comprehension achievement in North Shewa by Seid (2017), assessing English reading difficulty of Grade three students conducted in Addis Ababa by Getachew (2018) and the relationship between lecturers' beliefs and their actual methods of reading instruction carried out in teachers' training colleges in Amhara region by Gidalew and Van den Berg (2018), English reading

difficulties of Grade 6 students in Addis Ababa by Deribe (2019). Other local works directly related to reading strategies and reading comprehension were studies of Abiy (2012), Mebratu (2014), Dawit (2014), Belilew (2015) and Benti, Temesgen and Alemayehu (2017), and Rahel, Tekle and Alemayehu (2018). These are studies of cause-effect relationships. Unlike the indirectly considered aspect of studies concerning reading comprehension in relation to the present study, the latter needed more explanations to clearly see the researchable gap of the present study.

The first was Abiy's study. A study conducted by Abiy (2012) in Bahir Dar was to determine whether or not motivational beliefs and self-regulated learning strategies were significant predictors of high school students reading performance. The subscales for the motivational scales were intrinsic and extrinsic orientations, task value and self-efficacy for students' reading performance; whereas the subscales for the cognitive learning strategies were cognitive strategies (memorization, elaboration and organization) and metacognitive self-regulation (planning, monitoring and evaluating). Questionnaire, interview and tests were used to collect data from 107 students. Abiy's study was different from the present study in many aspects such as cognitive strategies focused on, context, purpose and research design and methodology.

The second one was Mebratu's study. The purpose of Mebratu's (2014) study which was carried out in SNNPR, at Wolkite Town, was to assess the effect that cognitive reading strategy had on the EFL learners' comprehension skills. More specifically, it focused on identifying the extent of high school EFL learners' use of cognitive reading strategies, deciding which cognitive strategy were more applicable in EFL classroom and examining whether cognitive reading strategy training reasonably improved the learners' comprehension skills or not. In addition to a questionnaire administered for 120 Grade 10 students in both groups, reading skill tests were employed before and after the cognitive

strategy training for the experimental and control groups. Mebratu's study seemed to be vague notably. For one thing, the experiment applied and the duration it took was not indicated. For another, the cognitive reading strategies included/excluded in the study were not specified; moreover, metacognitive reading strategies were also considered as cognitive strategies unidentifiably. Merging cognitive and metacognitive reading strategies was earlier researchers' trend, particularly at the time when research on reading strategies was immature (Dole, Nokes & Drits, 2009). Further, the purpose of Mebratu's research differed from the purpose of the present research.

The third one was Dawit's (2014) quasi-experimental study. A total of 65 students in two intact groups were taught. This study aimed at examining the effect of an explicit reading strategy instruction on students' reading comprehension of Grade 8 students in a public school. Similar to Mebratu's, Dawit's study did not specify which strategies were explicitly taught to the treatment group. Moreover, unlike the present one, Dawit's study did not touch cognitive aspects of reading strategies.

Another considerable research in relation to the present study was the study of Belilew (2015). The purpose of Belilew's study was to find out the rate of recurrence of reading strategy use and figure out the possible relationship between reading strategy use and reading comprehension among Dilla University second year English majoring students. A reading strategy inventory and a reading comprehension test were utilized to collect the required data from forty EFL learners participated in the study. Belilew's study assessed (without training) university level students with diverse backgrounds.

The sixth study considered was a quasi-experimental study of Benti, Temesgen & Alemayehu (2017). The purpose of the study was to find out the effect of reading strategy

training on students' academic reading achievement of Grade 9 students in two different schools in Oromia Region.

Forty six students were involved in the control group from Yukiro High School and 52 students in the experimental group from Firi Gemta Gera High School participated. A pre-test before the treatment and a post-test of reading comprehension after the treatment were given to both groups to compare their results and find out the differences. The single objective stated in this study indicated that cognitive reading strategies were not focused among other issues.

Lastly, Rahel, Tekle and Alemayehu (2018) carried out a quasi-experimental study for Master's degree fulfilment in Jimma Town. Their study focused on the effects of explicit cognitive reading strategy training on reading comprehension achievement and self-efficacy of Grade 11 students at Jimma Preparatory School. The researchers tried to cover 15 reading strategies (both cognitive and metacognitive reading strategies merged) within 10 sessions of 45 minutes (a total of about 7 hours). For the reading comprehension purpose, a comprehension test, adapted from TOEFL, was used for both before and after the strategy training. In this case, perhaps the same test was used for both pre-test and post-test. The researchers found out that both experimental and control groups were benefited from the training and concluded that explicit strategy training had more positive effects on reading comprehension achievement than implicit reading strategy. However, this study lacks clarity and scientific justifications as a study. One of the various unclear issues is that both cognitive and metacognitive reading strategies have been merged for training and treated as cognitive strategies. 15 identified strategies of the study cannot be covered and practised within 10 sessions of 45 minutes so as to get students' achievements improved. Another serious question to be raised is the issue of the same test administered both before (pre-test) and after (post-test) the strategy training. This enables especially good achievers to score better grades in the post-test as observed in the study of Rahel, Tekle and

Alemayehu (2018). In their study, both experimental and control groups were not similar in reading ability before they received strategy training; the pre-test mean score did not show significant difference between the groups (p-value was .001). This means that there was statistically significant difference between the two groups in terms of their reading ability before the intervention. In fact, both groups were different in reading ability both before and after the strategy training and, thus, would not be compared. Hence, the validity of this research would be in question.

Although all the local studies reviewed so far had their own purposes, research designs and methodologies, research contexts and participants' levels, they were different enough in resemblance from the present research. The present research gave due attention to investigate the effect of explicit cognitive reading strategy training on Grade 9 students' reading performance, metacognitive reading strategy awareness and reading motivation. As far as the researcher was concerned, no research had attempted to examine all these variables in a single experimental study in secondary school level, so it was worth to investigate and fill the gap.

Researchers suggested direction for future research. In their suggestion, Pawlak & Oxford (2018) indicate that the link among strategies in foreign language needs to be investigated. Pawlak & Oxford argue that the contexts in which LLS are explored deserves attention in the future research because they believe that it is of paramount importance to strike between the broader contexts (such as foreign versus second) in which strategy studies are conducted in different educational levels and types of programmes within these contexts.

There was a need for clarification of the role of cognitive reading strategies in English as a foreign language reading comprehension from both an empirical and a theoretical

standpoint. Theoretical and research gaps as well as the researcher's personal experience described before initiated to conduct on effects of explicit cognitive reading strategy training on students' reading comprehension in Ethiopian secondary school, particularly Grade 9. The current study attempted to examine the interplay among explicit cognitive reading strategy training, metacoginitive reading strategy awareness and reading motivation based on the following philosophical views/assumptions.

2.9 The Context of the Current Study

Context of reading comprehension differs from environment to environment. It has been discussed in the foregoing sections that scholars in the field agree that, if students are trained, cognitive reading strategies are considerably useful in improving students' reading ability in every language learning context. However, this issue of context has been controversial between scholars who accept setting difference and deny setting difference. For example, the number and the type of learning strategies differ according whether the learner is in a foreign language environment or in a second language setting (Oxford, 2003). In fact, according to the findings stated in Oxford (2003), second language learners generally employ more reading strategies with better frequency than do foreign language learners. This indicates that reading strategies used in Ethiopian context where English language is considered as a foreign language could not be treated similarly as it is in other settings.

Although English is considered as a foreign language in different countries, the application of reading strategies may not be the same everywhere. Accordingly, English textbooks of Ethiopian secondary schools, particularly of Grade 9, do not emphasize cognitive reading strategy training. In some cases, reading strategies like skimming and scanning are implicitly and frequently taught. This approach has been considered in the current study as implicit (indirect) mode or conventional method of reading strategy teaching. On the

contrary, reading strategies in and/or should be in the target textbook are not taught explicitly. In fact, students of Grade 9 are not taught cognitive reading strategies explicitly, and this may result in decreasing their reading performance. Therefore, this study emphasizes explicit training of cognitive reading strategies for Grade 9 students in Central Ethiopia Regional State, Hosanna Town, 232 kilometres far from Addis Ababa.

2.10 Theoretical Framework

This study is based on the post-positivism. Post-positivism, which is one of the four worldviews/paradigms suggested in the literature (Creswell, 2009; Oxford cited by Uztosun, 2015). As Creswell states, post-positivism is an inclusive term of positivism as it represents thinking after positivism. Creswell (2009) further explains that this worldview is sometimes called the scientific method or doing science research, positivist/post-positivist research, and empirical science.

Post-positivist assumptions are appropriate for quantitative research approach. According to Creswell (2009), the post-positivist assumptions have represented the traditional form of research, and these assumptions hold true more for quantitative research than qualitative research. 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 found in experiments. Developing numeric measures of observations and studying the behaviour of individuals becomes paramount for a post-positivist. There are laws or theories that govern the world, and these need to be tested or verified and refined so that researchers can understand the world. Thus, in the scientific method, the accepted approach to research by post-positivists, 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.

Thus, this theory is appropriate and relevant to assess effects of reading strategy training on students reading comprehension.

On the basis of this philosophical assumption, this study adopts Oxford's model of cognitive theory. This theory was 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 made outstanding theoretical contributions to language learning strategies, particularly reading, in that her taxonomy is viewed as one of the most comprehensive models formulated to date (Ellis, 1994 cited in Yaman & Çakici, 2013). The advent of this approach was as opposed to behaviourism of practicing reading. As a reaction to the behaviourist theory which was far from accounting for the complexities of language learning process, particularly reading, Noam Chomsky put forward a cognitive approach to language learning in mid-sixties (Griffiths, 2004). Although Chomsky's theory was directly related with the first language acquisition, it ushered a new era in the field of language teaching/learning (Griffiths, 2004).

The idea of cognitive theory that can help learners to take the responsibility of their own learning got its remarkable value and began to come under discussion. It was on this point that researchers such as Stern (1975) and Rubin (1975) conducted studies to identify the characteristics of effective learners or the features of "good language learners" and tried to explain how reading strategies could help better learning. These studies played the pioneer role in reading strategy research and broadened horizons for the related future theories (O'Malley & Chamot, 1990; Yaman & Çakici, 2013). That is why researchers advocate that "most of the major developments in what is currently known in cognitive theory were only just emerging when Rubin made" her suggestion (O'Malley & Chamot, 1990:98).

Following this, researchers in the field focused on cognitive approach of language learning, in this case, reading. Accordingly, Bandura (1977), the founder of social cognitive theory put forward a theory that suggests human beings have the ability to control much of their own behaviour which people usually display depending on their inner standards and their own motivation (Senemoglu, 2013 cited by Kayacan & Ektem, 2019). Thus, reading strategies or, as more recently labelled, learner strategies (McDonough, 1999 cited by Khezrlou, 2012) are steps taken by students to enhance their own reading comprehension. They are "behaviours or thoughts that a learner engages in during learning that are intended to influence the learner's encoding process" (Weinstein & Mayer, 1986 cited by Hsiao & Oxford, 2002). Readers' influencing engagement of their reading for Guthrie et al (2004) is that readers' motivation and cognitive reading strategies are central to engaged reading.

Scholars in the field of reading strategies have developed cognitive theory of reading which is active and dynamic process and laid foundations for the theoretical framework behind reading strategies (Anderson, 1985; O'Malley, Chamot & Walker, 1987; Shuel, 1986 cited by Paredes, 2010). As these scholars conform, cognitive theory is based on an information processing view of human thought and action. Two fundamental principles underlying this theory are that (a) behaviour can best be explained by reference to how individuals perceive and interpret their experiences and (b) the way in which individuals think and reason parallels the manner in which computers process information (Shuell, 1986). In cognitive theory, individuals are said to process information, and the thoughts involved in this cognitive activity are referred to as mental processes. Thus, reading strategies are special ways of processing information that enhance comprehension, learning, or retention of the information (O'Malley & Chamot, 1990).

Based on the notion of cognitive theory, different language learning strategies (LLS) taxonomies have been introduced by different scholars since mid-seventies. Rubin's (1975)

article of “Good Language Learner” paved the way for further research on reading strategies (Grenfell & Macaro, 2007 cited in Yaman & Çakici, 2013). As Rubin defined, strategies are “techniques or devices which a learner may use to acquire knowledge” and put forward that successful readers have some distinguishing characteristics like having a strong desire to communicate, willingness to guess when unsure and not being afraid of being wrong or appearing foolish (Rubin, 1975, cited in Yaman & Çakici, 2013). At this time, direct and indirect classification of learning strategies was forwarded by Rubin (1981, pp.124-126). Her classifications, as direct, were clarification/verification, monitoring, memorization, guessing/inductive inferencing, deductive reasoning and practice; while the indirect ones were given as creating opportunities for practice and production tricks. A few years after her first classification, Rubin (1987 cited in Yaman & Çakici, 2013) provided a more extensive point of view and classified language learning strategies under three groups as learning strategies, communication strategies and social strategies.

Some scholars forwarded definitions of learning strategies after Rubin did. For example, O’Malley *et al (*1985, p.23 cited in Yaman & Çakici, 2013*)* forwarded their own definition of learning strategies as “operations or steps used by a learner that will facilitate the acquisition, storage, retrieval or use of information” and classified them under three categories: meta-cognitive, cognitive and social. It can be said that they added the ‘social’ dimension to the taxonomy considering that the cognitive and metacognitive categories replaced Rubin’s direct and indirect strategies that constituted her early classification. On the other hand, as one of the outstanding researchers in this field, Stern (1992 cited in Yaman & Çakici, 2013) divided LLSs into five strategy groups, which are management and planning strategies, cognitive strategies, communicative - experiential strategies, interpersonal strategies and affective strategies. His classification resembles that of Oxford (1990) in that the scopes of the categories overlap notably.

It is wise to consider a commonly accepted classification for the present study. It is widely accepted that Oxford (1990) made outstanding theoretical contributions to the issue of reading strategies. Her taxonomy is viewed as one of the most comprehensive ones formulated to date (Ellis, 1994). 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) divides reading strategies into two main groups as Direct and Indirect. She then divides each of these groups into three: memory, cognitive, and compensation as direct strategies, whereas meta-cognitive, affective, and social as indirect strategies. Oxford (1990) reports 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". As a matter of fact, in order to attain a desirable success or conclusion performer and director should cooperate and work with coordination. This performer and director simile 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 prior to an instruction process. Oxford (1990, p.204) suggests 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.

Oxford (1990) explains how this model of reading strategies works. The first step of the model is about knowing learners' features of receiving strategy training. In this regard, among the factors determining the needs of learners are learners' age, proficiency level, background and the like. Along with these factors, strategy trainers should determine the length of the process well in accordance with the needs of students and conditions available. The second step is concerned with the selection of strategies. Strategies should be selected in accordance with the needs of students. Instead of using one strategy, a few different but interrelated strategies should be instructed. Instead of teaching only simple or only difficult strategies, both of them should be given in combination. In addition, the use of selected strategies should be transferrable to future possible tasks. The third step is related with the nature of strategy training. Oxford says that integrating strategy training with regular reading tasks and materials is important and should be considered in that it should allow learners to see and practice strategies in context, which raises the possibility of long-retention and future transfer. The fourth step involves raising the motivation level of students. Oxford suggests that teacher gives grades for performance with strategies or encourages and convinces students about the fruitfulness of using strategies. Besides, to enhance motivation, strategies and materials should be selected meticulously in line with students' characteristics. The fifth step is about the preparation of materials and activities to be used in strategy training. Teachers may use available materials or they can develop their own materials like practice sheets. In preparing materials and activities, motivational issues should be taken into consideration and should be in conformity with features and requirements of selected strategies. The sixth step involves the issue whether to follow a direct or embedded instruction process. As Oxford suggests, direct instruction should be employed and learners should be informed about the aim and the use of the strategies to be taught. By doing so, metacognitive dimension of the training can be also fulfilled. In the seventh step both students and the teacher evaluate the instruction process in terms of the performance and progress achieved. Opinions and observations of the students are quite important in this context as they constitute the target. In the eighth and the last step, the

instructor revises the whole process in the light of the findings yielded in the seventh step and takes decisions about the efficacy of the training and what to change if there appear shortcomings.

Following these steps helps to attain desired results of strategy training. If problems occur in any of these steps, the process may be adversely affected. However, with the aid of evaluation and revision phases errors can be compensated thus enabling chances to restructure the training model. Having this model of the study in mind, the following conceptual framework has been produced for the current study.

2.11 Conceptual Framework

Based on the purpose and the theoretical framework of the study, it would be possible to draw a conceptual framework as below.

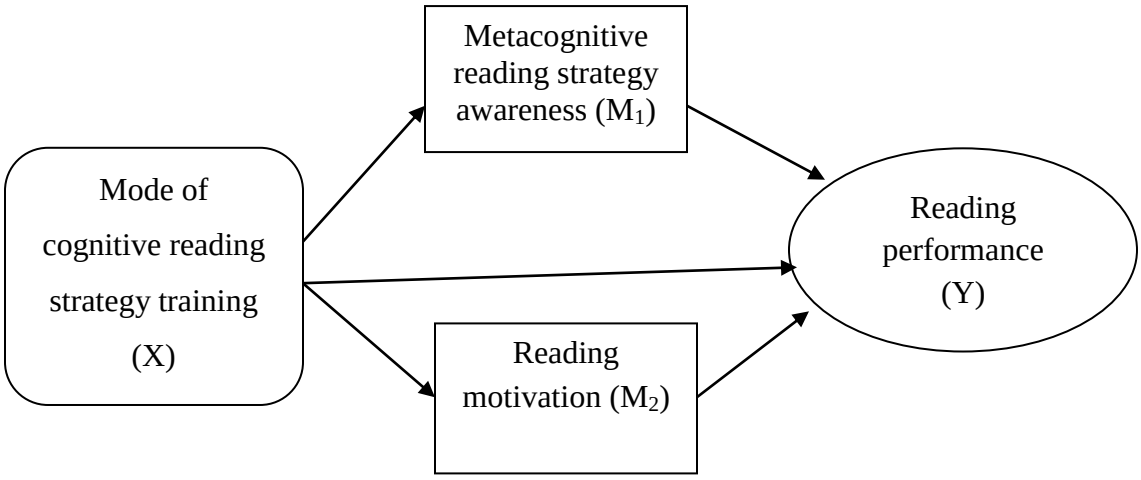

Figure 2.1: Conceptual framework of the present study

This conceptual framework shows direct / indirect relationships among independent, predicting and dependent variables. The framework shows the effect of the mode of

cognitive reading strategy training (X) on three dependent variables: reading performance (Y), metacognitive reading strategy awareness (M_1) and reading motivation (M_2). Both M_1 and M_2 are potential variables to predict the score of reading performance; in M_1 and M_2, M stands for mediation or prediction. Metacognitive reading strategy awareness and reading motivation are taken as potential variables to predict on reading performance (Y). Based on this framework, the model of the study utilized to examine relationships among the variables mentioned and its description has been presented in Figure 2.2 below.

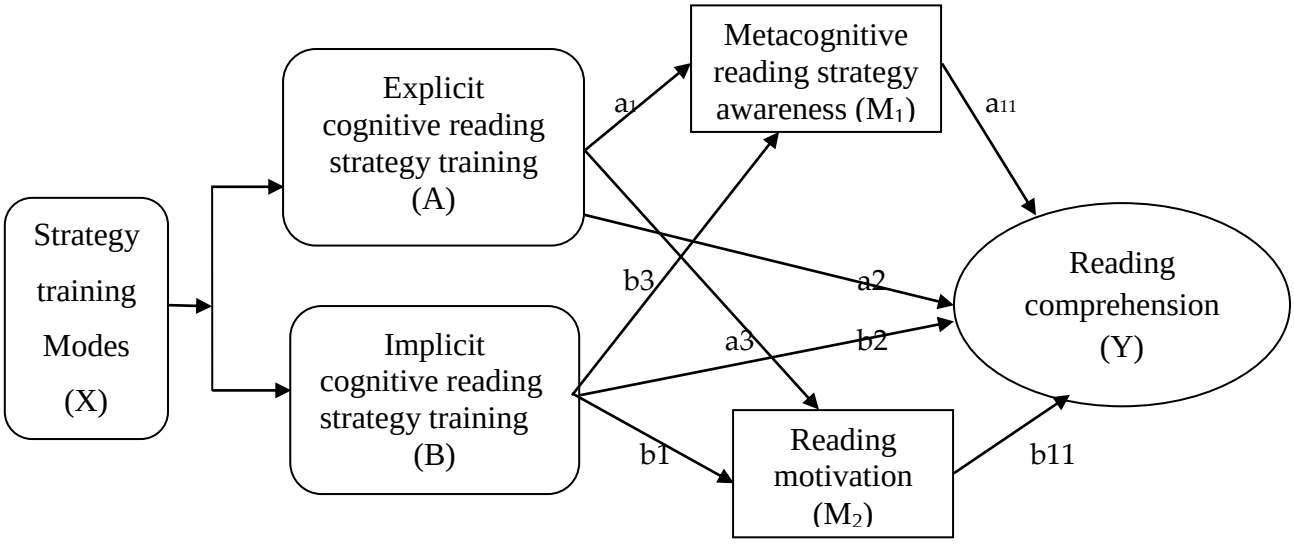

Figure 2.2: Model of the study

In the model of the study presented above, the two modes of training, explicit cognitive reading strategy training for treatment group and implicit cognitive reading strategy training for control group have been labeled as (A) and (B), respectively. Following this, lines have been labeled to indicate the relationships of the four variables. Lines a_1 and a_3 show whether explicit cognitive reading strategy training (treatment group, A, and control group, B) directly affects the mediating variables, metacognitive reading strategy awareness and reading motivation, respectively. The relationship line a_{11} indicates if the

mediating variable, metacognitive reading strategy awareness, of the training contributes to reading performance. The multiplied value of the relationship lines, a_1a_{11} and b_1a_{11}, shows the indirect effect of two modes of cognitive reading strategy training to have on reading performance, respectively.

Similarly, lines b_1 and b_3 show if conventional (implicit) cognitive reading strategy training (control group, B) has direct influence on both metacognitive reading strategy awareness and reading motivation, respectively. The relationship line b_{11} indicates if reading motivation of the control group directly affects reading performance. The multiplied value of the relationship lines, a_3b_{11} and b_3b_{11}, shows the indirect effect of the two different modes of the strategy training to have on reading comprehension, respectively.

Finally, the relationship indicating lines a_2 and b_2 show the direct effect of the explicit cognitive reading strategy training (A) and conventional cognitive reading strategy training (B) on reading performance, respectively. The two modes of training would show their own direct effect on reading comprehension even if each of the two moderating variables (metacognitive reading strategy awareness and reading motivation did not have indirect effect on reading comprehension.

To put the variables of the current study further clearer, it was vital to identify what the variables of the study actually were and how they practically worked. As explained earlier, the current study had four variables: mode of strategy training, reading comprehension, metacognitive reading strategy awareness and reading motivation. Mode of the strategy training was an independent variable; reading comprehension was a dependent or outcome variable; on the other hand, the predicting (metacognitive reading strategy awareness and reading motivation) variables could be dependent or independent variables based on their

direct or indirect contribution to reading comprehension. As mentioned above, the independent variable, mode of the strategy training, had a direct effect on the dependent variable, reading comprehension, and on both of the predicting (in this case dependent) variables (metacognitive reading strategy awareness and reading motivation). However, both the predicting variables could be considered as independent variables if the relationships between the variables and reading comprehension were to be seen separately. In other words, in this case, metacognitive reading strategy awareness and reading motivation were independent variables, whereas reading comprehension was a dependent variable. Therefore, the following chapters focus on these four research variables as hypothesised in the foregoing chapters.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Research Design

This was a quasi-experimental research design. This design was appropriate to apply an experiment to test hypotheses in a controlled environment; in experimental research, extraneous influences are controlled as much as possible. The study employed a pre-test-experiment-post-test design of a quasi-experimental study. This design was used to test students' reading performance of two different modes (explicit and implicit) of cognitive reading strategy training. Accordingly, the experimental group was taught cognitive reading strategies explicitly; whereas the control group was taught the same strategies implicitly. This helped to look at whether or not the outcomes differed between the experimental and the control groups. The experiment was applied between the two groups as indicated in Table 3.1 below.

Table 3.1

Application of the research design

Group	Pre-test	Treatment	Post-test
Experimental	X	X	X
Control	X	0	X
X means applied, and 0 means not applied			

As indicated in Table 3.1 above, two, experimental and control, groups were trained six identified cognitive reading strategies in two different modes. The experimental group was taught the strategies explicitly, whereas the control group was taught them implicitly. In the second and the fourth columns of the table, X shows that both groups took both the pre-test and the post-test before and after the intervention, respectively. On the other hand, X in

the third column shows that the experimental group was given explicit training, whereas **0** in the same column shows that the control group was not given explicit training. The experimental group was taught the cognitive reading strategies explicitly for twelve weeks or for fourteen hours, whereas the control group was taught the same strategies for the same weeks and hours as that of the experimental group.

This study applied a quantitative approach. This research approach allowed collecting numerical data and applying statistics in analysing these numerical data. All the quantitative data gathered through the research tools put below were analysed and presented quantitatively.

3.2 Selection of Research Participants

The population of this study was Grade 9 students of a public school in Hosanna Town, 232 kilometres south of Addis Ababa. There were four public schools which treated Grade 9 in the year 2022/2023 in the town. It was believed that most of the students of the four schools had similar level of language proficiency in addition to cultural, social and economic background. Unlike other parts of Hadiya Zone, it was also believed that nearly all the students of the mentioned schools at Hosanna Town could understand both Hadiyyisa and Amharic languages very well. Thus, the participants of this study would not be affected by possible differences that could arise from background of the study population.

For the study, Heto Secondary School of these four schools was selected randomly by using a lottery method. Among the groups (sections) of Grade 9 of this school, two intact groups (sections A and B) were further randomly selected for the study. Section A was assigned randomly as control group and section B as experimental group. Initially, 54

students were enrolled in each group of the target grade; however, 50 students from each group, that is, a total of 100 students actively participated in this research. A total of 45 male and 55 female students participated in the study. As a sample of the study, the experimental group (section B) consisted of 22 male and 28 female students; whereas, the control group (section A) consisted of 23 male and 27 female students. All (100) of the participants were between 15 – 20 years of age, and there was no statistically significant difference between the ages of the two groups (See Table 4.2). It was ensured by so doing that size, gender and age of the participants would not affect the results of the study.

3.3 Data Collection Tools

To gather data, this study employed two tests and two sets of questionnaire as described below.

3.3.1 Pre-test and post-test

Two tests, a pre-test and a post-test, were employed to gather data from both experimental and control groups. These tests were parallel and consciously prepared home-made tests. Teacher-made tests were preferred to that of the standardised tests so as to fit the context and the English ability of the study participants.

Each test consisted of two fairly short passages. The first passage of each test focused on a social aspect and consisted of 668 words of five and six paragraphs; whereas, the second passage of each test was about tourism in the northern part of Ethiopia and contained 780 words of five paragraphs each. Each test of the main study contained 25 items (but 30 items during the pilot study) of four parts such as fill in the blank spaces with one or two words (five items), true or false (three items), multiple choice (12 items) and matching main ideas or concepts of paragraphs of the second passage (five items). Both tests of reading

comprehension for both target groups were administered in a similar and considerable condition, including time (put briefly below).

The participants of the groups of the study took the pre-test before they received strategy training; the participants took the post-test after they received strategy training. Both tests were prepared and evaluated prior to commencing strategy training, that is, before administering the pre-test of the pilot study. Although 30 items of each test were administered in both cases, both during the pilot study and the main study, 25 items of each test were used for the main study because five items from each test were finally rejected after further validation processes were carried out. How and why these 25 items were used has been explained below.

As mentioned earlier, initially, each test consisted of 30 objective test questions (items). Objective test questions include multiple-choice questions, matching, true or false and fill-in the blank spaces (Festsus, 2014 in Tshabalala, Mapolisa, Gazimbe & Ncube, 2015). Accordingly, each of the tests comprised five fill-in the blank space with one or two words (item numbers 1-5), five true or false questions (item numbers 6-10), 15 multiple-choice questions (item numbers 11-25) and five matching main ideas of paragraphs (item numbers 26-30). Each item of each part was marked 2.5 points, 1 point, 1.5 points and 2 points, respectively.

Before rejecting the five items of both tests, the 30 item teacher-made pre-test was administered for the research participants before randomly assigning the two intact groups as experimental and control groups. However, as mentioned earlier, only 25 items of this pre-test were used for the main study; the rest five items such as item numbers 6, 16, 17, 23

and 24 were rejected because the discrimination indexes of the items were negative or poor after item analysis was carried out.

This pre-test of 25 items enabled the researcher to understand the participants' current proficiency level of reading comprehension ability that the participants had before they were provided with the strategy training. This performance of reading ability was measured by the scores of the participants obtained from the pre-test of the 25 items. These scores were carefully recorded and used to compare the two groups. The scores were also used to make comparison between the groups and between the pre-test score (Score 1) and the post-test score (Score 2) of each group after the completion of the intervention.

The second test, a teacher-made post-test of 30 items, was administered for the research participants immediately after the completion of the intervention. Similar to the pre-test, items with poor item discrimination index of the post-test were rejected after item analysis was carried out. Thus, only 25 items of this post-test were used for the main study; the rest five items such as item numbers 7, 8, 16, 21 and 25 were rejected. This post-test of 25 items was used to compare the performance of the groups. The participants' scores of this test were carefully recorded and used to make comparison between the groups and between the scores of each group by using the scores of their pre-test.

To brief how the tests were administered, each time, that is, before and after the intervention, the participants took each test in four different rooms (25 students in each room) by four different invigilators, excluding the researcher, from 9:00 to 11:00 (3:00 to 5:00 local time) in the morning; this time was chosen for convenience for the test takers. The participants were placed in four rooms so as to avoid cheating and any unnecessary inconvenience during they were taking the tests. There was no problem encountered while

the participants were taking the tests as the researcher facilitated the whole processes of the tests each time smoothly.

As all the items of the tests were objective, the researcher himself marked both tests. Initially, all the 30 items of each test were scored out of 50. However, the five defective items listed earlier were rejected from each test because they were identified as defective items during the item analysis. Thus, the pre-test (25 items) and the post-test (25 items) were marked as 43 and 43.5, respectively. Therefore, final scores of each of the 100 participants obtained out of 43 of the pre-test and out of 43.5 of the post-test were recorded and used for further analysis of this study.

3.3.2 Questionnaires

Questionnaire was another tool of the study used for the purpose of measuring the participants' awareness of metacognitive reading strategy and their reading motivation. To this end, two sets of questionnaire were utilized both in the beginning and at the end of the strategy training.

3.3.2.1 Questionnaire of metacognition reading strategy awareness

To gather data concerning students' metacognitive reading strategy awareness, a set of questionnaire was used. This questionnaire, a standard questionnaire called Metacognitive Awareness of Reading Strategy Inventory (MARSI) version 1.0 by Mokhtari and Reichard (2002), was adopted after a great deal of search and study of the previous studies. The intention of this instrument was to assess adolescent and adult learners' awareness and perceived use of reading strategies while reading academic and school related materials such as text books, library books and so on. The basic underlying purpose to devise such an instrument was to measure "the degree to which a student is or is not aware of the various

processes involved in reading" (Mokhtari & Sheorey, 2002, p. 251). The questionnaire had a total of 30 items and comprised three dimensions, namely, Global Reading Strategies, Problem Solving Strategies, and Support Reading Strategies. The dimensions consisted of thirteen, nine and eight items, respectively. The questionnaire used a five-point Likert scale: 1 means "I never or almost never do this", 2 means "I do this only occasionally", 3 means "I sometimes do this" (About 50% of the time), 4 means "I usually do this", 5 means "I always or almost always do this." (See App. B1).

The same questionnaire of metacognitive reading strategy awareness was administered both before and after the intervention. The questionnaire of the first round was filled in a day before administering the pre-test and assigning the two groups as experimental and control; the questionnaire of the second round was administered immediately after the completion of the reading strategy training and a day before the post-test was administered. The purpose of the first round self-report of the questionnaire was to understand what awareness the participants had about their metacognitive reading strategy. The purpose of the second one was to check if the participants in the two groups had changed the positions of their reported awareness regarding metacognitive reading strategy they showed in the first round self-report of the questionnaire or not. This enabled to realise the direct contributions of the two different modes of reading strategy training on metacognitive reading strategy awareness. The students' self-reported responses, in turn, enabled to understand the interplay among explicit cognitive reading strategy training, reading comprehension performance and metacognitive reading strategy awareness. To get reliable and valid responses from the students, and to avoid misunderstanding of the items because of their possibly poor English, the researcher translated the questionnaire from English (their foreign language) into Amharic (their second language). So, the participants were provided with both English and Amharic versions side by side. This was used after it had been revised and evaluated by experts in the field.

It has been reported that the validation processes in the development of the instrument was made by the developers of the questionnaire and its internal consistency estimate of reliability was calculated. The reliability of the instrument, the Metacognitive Awareness of Reading Strategy Inventory (MARSI) by Mokhtari and Reichard (2002), was reported at .93, indicating a reasonably reliable questionnaire to measure the metacognitive awareness of reading strategies. In addition to this, Cronbach's Alpha coefficients of the self-reported responses of the participants of both the pilot study and the main study were calculated; the same Cronbach's Alpha **.**855 was obtained from the self-reports of the questionnaire administered both before and after the intervention during the pilot study; Cronbach's Alpha **.**915 (pre-self-report) and **.**925 (post-self-report) were obtained from the self-reports of the questionnaire administered both before and after the intervention during the main study. This shows that the tool was reliable to use.

3.3.2.2 Questionnaire of reading motivation

Another set of questionnaire was employed to gather data from the participants about their reading motivation. This was 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). Erten et al. (2010) developed the questionnaire to explore undergraduate university students' motivation and attitudes towards reading in a foreign language (FL) in Turkey. The questionnaire consisted of four factors, namely, intrinsic utility value of reading, reading efficacy, extrinsic utility value of reading and foreign language linguistic utility. It was in a five-point Likert scale format from strongly disagree (1) to strongly agree (5) (See App. B2).

The questionnaire consisted of 31 items of the four factors. The factors, that is, intrinsic utility value of reading, reading efficacy, extrinsic utility value of reading and foreign

language linguistic utility contained sixteen, six, five and four items, respectively. The final version of the questionnaire that included 7 negative items and 24 positive items in order to recheck the answers from the participants (Torudom & Taylor, 2017) was used.

Erten et al's (2010) questionnaire was adapted because, as far as the researcher's knowledge was concerned, no other better instrument was produced for EFL students at all grade levels. Several instruments were produced to measure primary school students' reading motivation in L1 context; however, these instruments did not include important aspects such as foreign language linguistic utility. In addition, they did not include appropriate questions of reading motivation for EFL learners in Ethiopian context. Furthermore, the reading motivation instruments developed for L1 learners and the questions included in them were not as easy to adapt as Erten et al's (2010) instrument and the questions in it. Beyond this, the researcher believed that slightly adapting this questionnaire was far better than from developing a new one. It has been stated that researchers can make modifications to an instrument by reducing the language load, simplifying rating scales, and reading items aloud to students (Lai, 2011). Accordingly, only some language loads were adjusted during the adaptation.

Similar to the questionnaire of metacognitive reading strategy awareness, this questionnaire was administered both before and after the intervention. The questionnaire of the first round was administered 30 minutes later after the metacognitive reading strategy awareness questionnaire was administered; the questionnaire of the second round was administered 30 minutes later after the metacognitive reading strategy awareness questionnaire was administered at the end of the reading strategy training but a day before the post-test. The purpose of the first round self-report of the questionnaire was to understand what motivation the participants had about their reading. The purpose of the second one was to check if the participants in the two groups had changed the positions of their reported

motivation they showed in the first round self-reported questionnaire or not. This enabled to realise the direct contributions of the two different modes of reading strategy training on reading motivation. The students' self-reported responses, in turn, enabled to understand the interplay among explicit cognitive reading strategy training, reading comprehension performance and reading motivation. To get reliable and valid responses from the students, and to avoid misunderstanding of the items because of their possibly poor English, the researcher translated the reading motivation questionnaire from English (their foreign language) into Amharic (their second language). So, the participants were provided with both English and Amharic versions side by side. This was used after it had been revised and evaluated by experts in the field.

According to Erten et al. (2010), validation processes in the development of this instrument were taken and the reported internal consistency estimate of reliability for the 4 subscales (factors) of the instrument and Cronbach's Alpha coefficients were 0.94, 0.87, 0.84 and 0.73. As Santürk (2015) stated, the overall Cronbach's Alpha coefficient of the subscales was 0.714, 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 both the pilot and the main studies were calculated; Cronbach's alpha of the pilot study obtained **.**851 (of the pre-self-report) and **.**788 (of the post-self-report), whereas, Cronbach's alpha of the main study obtained **.**861 (of the pre-self-report) and **.**897 (of the post-self-report). This showed that the tool was reliable to use.

3.3.3 Validity and reliability of the tests

As this section focuses on validity and reliability issues of the pre- and post-tests of the study, it is useful to see all the three types of a good test. Scholars agree that a good test involves three criteria: practicality, validity and reliability. Practicality refers to the aspects

of financial, administrative and scoring capacities (Harrison, 1983, cited in Asmare, 2008). In other words, practical issues are time, resource and administrative logistics (Popham, 2005, cited in Tshabalala, Mapolisa, Gazimbe & Ncube, 2015). Tests can be valid and reliable if they are practical as the three mentioned criteria of a good test are dependent on each other (Weir, 1990, quoted by Asmare, 2008). However, if not carefully prepared and evaluated, as Popham (2005), cited in Tshabalala, Mapolisa, Gazimbe & Ncube (2015), states, teacher-made tests lack validity and reliability at times, and, thus, establishing the effectiveness of such tests is inevitable. In relation to this, Mpofu (2011), cited in Tshabalala, Mapolisa, Gazimbe & Ncube (2015), advises that teachers need to be extremely careful in designing the test that measures the skill it intends to measure. Accordingly, validation and reliability issues of the tests of this study were considered carefully. Hence, the following sections focus on validation and reliability issues of the teacher-made tests used for this study.

3.3.3.1 Validity of the tests

validity of a test is considered as crucial frame of reference for a test writer to come up with a quality test because test validity concerns with the degree to which a given test should measure what it is intended to measure, not anything else (Weir, 1993, cited by Asmare, 2008). Before writing a test or during planning to design a test, its purpose, among other issues, needs to be identified (Ory & Ryan, 1993, cited in Meseret, 2011). Accordingly, two tests: a pre-test and a post-test of reading comprehension mentioned elsewhere earlier were set by an experienced English teacher in secondary schools. The teacher prepared the tests based on the guidelines set for the same purpose and under the intact supervision of the researcher. These tests were evaluated by experts for face and content validities as explained below.

3.3.3.1.1 Evaluation of the tests

After the two parallel tests were prepared and before the intervention of the pilot study was started, in addition to the researcher, two experts in teaching English and constructing reading comprehension tests in secondary schools at Hosanna Town had evaluated the tests for their appropriateness for the study based on a checklist prepared by the researcher. After the researcher had improved the tests based on the information given by the English experts and after the pilot study, another expert of measurement and evaluation evaluated the last revised version of the tests for the main study.

The checklist of the evaluation of the tests consisted of 12 criteria in Likert Scale and four open ended questions which enabled to obtain overall information about the tests. In the checklist (See App. E1), Test 1 and Test 2 were used for pre-test and post-test, respectively. Both tests were evaluated for their parallelism, appropriateness, wording, clarity, difficulty level, culture bias and the like. Based on the suggestions forwarded from the experts, necessary improvements were made before administrating the tests. Appropriateness of destructors of multiple-choice items were also carefully considered (See App. E2)

Although the participants of the study took the tests that were improved by the researcher based on the information gathered from the mentioned experts, carrying out item analysis was needed so that it was possible to decide whether each item of both tests was difficult/easy/ discriminating or not. In other words, item analysis was calculated to check both item difficulty level (to use DfI) and item discriminating index (to use DI) of the tests statistically. This enabled to get the items of the tests more valid and reliable. Thus, 25 of 30 items of each test were utilised for the main study. The rest five items of each test were rejected based on the information obtained from the item analysis of each item of the tests as shown in the item analysis section below.

3.3.3.1.2 Item analysis of the tests

Item analysis is a process of collecting, summarizing and using information from students' responses to assess the quality of the test (Sharma, 2021). It is used to assess how well a teacher-made test is functioning (Quaigrain & Arhin, 2017). As these researchers explained, item analysis gives the testers a way to exercise additional quality control over their tests. As they further stated, a good item is one that good students get correct more often than do poor students. Thus, item analysis allows testers to observe the characteristics of a particular item and can be used to ensure that items are of an appropriate standard for inclusion in a test or else that the items need improvements (Sharma, 2021). In so doing, the ultimate reason to do item analysis is to improve the validity of a test by improving reliability, which is a prerequisite (Quaigrain & Arhin, 2017); and both validity and reliability are dependent on each other (Bachman, 1990).

Both difficulty index (DfI) and discriminating index (DI) of item analysis are interpreted based on agreed upon standards of guidelines as a rule of thumb (Ebel, 1979 in Sharma, 2021). According to these guidelines, p-value of DfI is from 0-1 and DI extends from -1 to 1. For the interpretation of the item analysis of this study, then, Sharma's (2021) recommendations of DfI and DI was applied. As this recommendation shows, items with DfI between 0.20-0.90 are kept to use, but items with DfI <0.20 and >0.90 are most difficult and the easiest, respectively, and should be removed from the test. Similarly, items with negative DI should be discarded; but items with DI <0.20 are revised or discarded. Taking this recommendation and the context of the participants of this study into consideration, items that were too difficult/easy and with poor or negative DI were rejected after the item analysis was made (See App. E5 & E6, pre-test and post-test). Accordingly, item numbers 6, 16, 17, 23 and 24 from the pre-test and item numbers 7, 8, 16, 21 and 25 from the post-test were rejected from the analysis of the main study. In addition to this last

step of ensuring internal consistency of test items, every possible measure was taken to maximize reliability of items of the tests as shown under reliability section below.

3.3.3.2 Reliability of the tests

"A test is reliable if it measures consistently" (Hughes, 2003). However, factors such as test method facets, attributes of the test taker that are not considered part of the language abilities to measure, and random factors that are largely unpredictable and temporary can affect test reliability (Bachman (1990) of reading performance scores. Fortunately, measurement specialists recognize and explain how to distinguish the effect (on test scores) of the abilities test givers want to measure from the effects of other factors (Bachman, 1990). Bachman emphasizes that a fundamental concern in the development and use of reading comprehension tests is to identify potential sources of error in a given measure of reading ability and to minimize the effect of these factors on that measure. This reliability issue was taken into consideration in employing the tests of this study in order to minimize measurement error and maximize reliability of the participants' reading comprehension test scores.

As discussed in the foregoing sections, the participants of the study were from a very similar background concerning their language acquisition and/or language proficiency and some other characteristics like age and cognitive style. Both male and female participants were speakers of Hadiyyisa (their native language), Amharic (their second language) and English (their foreign language). All of the participants were between 15-20 years of age; and each group of the study consisted of the same sample size and nearly the same sample size in terms of gender. Considering these characteristics of the participants would help to minimize measurement errors.

Another source of measurement error is related to reading comprehension ability. To achieve this, parallel tests were designed carefully. Each of both pre-test and post-test consisted of two passages of medium length and 30 questions. Both the passages and the items of the tests were parallel in that passage one (5 paragraphs) of the pre-test was about a social aspect and contained five 'Fill in the Blank Space', five True/False questions and seven multiple questions; passage two (6 paragraphs) of the same test was about tourism in Ethiopia and contains eight multiple-choice and five matching questions. The two passages of the pre-test consisted of a total of 659 words. Similarly, passage one (5 paragraphs) of the post-test was about a social aspect and contained five 'Fill in the Blank Space', five True/False questions and seven multiple questions; passage two (5 paragraphs) of the same test was about tourism in Ethiopia and contained eight multiple-choice and five matching questions. The two passages of the post-test consisted of a total of 775 words; in this case, the passages of the post-test were fairly longer than the passages of the pre-test as the students were more exposed for reading passages than before. The tests were designed parallel in order to minimize inconsistency of the passages and items and in so doing, to minimize the possible inconsistency of scores. Concerning multiple choice items, 15 items with four alternatives for each item were prepared. The appropriate destructors (See App. E2) of these items would, for instance, depict that the tests were actually parallel and sound.

The researcher agrees with Bachman's (1990) beliefs that increasing the reliability of measures could help to satisfy a necessary condition for validity. As Bachman (1990, p.160) stated, "in order for a test score to be valid, it must be reliable." These carefully designed tests were administered in a favourable condition. In order to minimize the influence of factors that were not related to reading ability, all the participants were made to take the tests in similar and confortable environment/conditions including time.

3.3.3.4 Normality tests

Before using statistical tools of data analysis, normality tests of the pre-test and the post-test scores were computed during the pilot study to determine whether the distribution of the data sets was well-modelled or not. Although the tests of the pilot study lacked to meet a lower bound of the true significance in some cases, it was shown from the points plotted in the QQ plot that normal data fell approximately on a straight line, indicating high positive correlation (See App. F2a & F2b). These plots also helped to identify outliers easily. The normal probability curve of a histogram of the sample data was also compared.

Normality tests of the test scores were also computed during the main study. Both the pre-test and the post-test met a lower bound of the true significance in each case. This indicated that the distribution of the scores of data was normal (See App. F1a & F1b). This enabled to use the statistical methods applied for this study during analysing data.

3.4 Training Materials

3.4.1 Reading texts

To meet the intended purpose of the cognitive reading strategy training, the materials provided in Grade 9 English textbook were used. From the materials of the textbook, only reading sections were selected. These reading sections of the textbook were selected so as to avoid or at least to minimize any unwanted inputs to be likely gained through extra practising of 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 and unwanted source of practising reading comprehension when the materials were taught by likely different teachers, and this would possibly affect the research findings. The control group of the study was taught reading materials in the

textbook and the six selected reading strategies implicitly; whereas, the experimental group was taught the same materials and reading strategies as that of the control group but with extra treatment of the selected cognitive reading strategies. Thus, both the control and the treatment groups were provided with the same reading strategies and materials of reading sections in the student's book but with different cognitive reading strategy training approaches.

3.4.2 Exercises of the texts

All the reading comprehension activities and exercises designed for students in the current textbook of Grade 9 English for Ethiopia were used with and for different purposes. To control unwanted and to be likely influencing treatment, there was not an application change of the activities and exercises in the student's 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 other groups (sections) of Grade 9 in the target school. Hence, not only the materials in the student's textbook but also the approach of strategy training of the control group was kept constant as conventional, that is, the selected strategies were taught indirectly.

Although similar materials of Grade 9 English textbook was used also for the experimental group of the study, the purpose and the mode of the training were different from that of the control group. In addition to the cognitive reading strategies provided in Grade 9 English textbook for the traditional (usual) strategy training, all the six identified cognitive reading strategies for the experiment purpose of this study were employed based on the purpose of the study. As the purpose of the experiment was to examine considerable difference likely to be observed between the two groups because of the two modes of training, namely, implicit teaching mode for the control group and a new mode (explicit reading strategies) for the experimental group, the strategy training for the experimental group was plainly

taught to the maximum. All the selected reading strategies were explained by the teacher why and how they were used during the students read texts in English.

3.4.3 Evaluation of the texts and the exercises

The effectiveness of the materials that were used was validated during the pilot study of the research project. Both strengths and weaknesses of the materials were evaluated during this study. Based on this evaluation, necessary improvements of the approach of the training reading strategy tools were made for the main study.

3.5 Implementation

The research project had two phases of implementation. The first one was the phase of the pilot study. The second one was the phase of the main study. In both phases, different activities were carried out to achieve the objectives of the study. What was implemented and how it was implemented during the main study has been explained below.

In the phase of the pilot study, as mentioned in tools section, a pre-test and two sets of questionnaire were employed for both the experimental and the control groups before the training was commenced. The questionnaires were administered in chunk before the pre-test was administered. Each of the questionnaires took 10 to 15 minutes, and the pre-test took 45 to 85 minutes to complete. Two days later after the pre-test was administered, the materials that were ready to train the groups were applied by a trained English teacher in two intact groups of Grade 9. Exactly similar materials and modes of reading strategy training that were planned for the main study had been implemented during the pilot study. The training took place for about 10 hours within eight weeks, from 01 December 2021 to 29 January 2022. After two days of ending the training, the same questionnaires that were employed before the intervention were administered. Following this, a day later, a post-test

was given. The questionnaires and the post-test were administered in the same order as was during the pilot study. Similar to the first round, each questionnaire took 10-15 minutes and the post-test took 40 to 70 minutes to complete. However, initially, both tests were equally allowed 2 hours.

In the phase of the main study, before implementing actual reading strategy training for the two randomly assigned intact groups, two sets of questionnaire and the home-made pre-test, similar to that of the pilot study, were carried out in a similar way as that of the pilot study. Following this, strategy training instruction, that is, explicit cognitive reading strategy training for the experimental group and implicit reading strategy instruction for the control group were carried out by a trained English teacher where the presence of the researcher as an overseer occasionally. Each of the groups was given instruction for twelve weeks, that is, two times of 40 minutes a week. This means that each group was trained a total of 960 minutes, that is a total of 16 hours. However, taking five minutes of possibly wastage time from each period of 40 minutes into consideration, a total of 840 actual minutes (a total of 14 actual hours) were taken as the training hours. Thus, it was taken that the experiment was carried out for 14 hours within 12 weeks in the first semester, from Monday 24 October 2022 to Friday 13 January 2023 academic year. Similar to the pilot study, the instruction in this implementation was different according to the differences of the research purposes.

Each of the two groups was provided with different modes of strategy training. The control group was taught reading strategies implicitly, whereas the experimental group was trained the strategies explicitly. Although the mode of the training was different according to each group, the materials and the exercises in which the six selected cognitive reading strategies applied were the same as that of all the other students of Grade 9 were taught. That means

the training materials utilized were based on the guidelines of English textbook, the teacher book and the syllabus of Grade 9 English for Ethiopia.

Concerning the modes of the training, the experimental group was trained the six selected cognitive reading strategies explicitly (plainly) using the reading materials and exercises selected. On the other hand, the control group was taught the same cognitive reading strategies implicitly (indirectly), without any explanation using the same reading materials and exercises selected. Especial treatment was made to the experimental group during the experiment in addition to the already existed strategies such as scanning and skimming in the selected materials of Grade 9 English textbook. Using the materials, only the selected cognitive reading strategies were plainly and completely taught for the experimental group unlike to the control group.

During the implementation, as mentioned earlier, the mentioned teacher taught both groups after having an ample orientation about the two different modes of training, the way of delivering each mode, the roles the teacher to play and the responsibilities the teacher to pay attention. After completing the training, that is, after three months or twelve weeks, from 24 October 2022 to 13 January 2023, both groups had filled in the same questionnaires that were employed before the training and taken the home-made post-test two days later after the training. The participants of the groups took the pre-test and the post-test during 17-21 October 2022 and 16-20 January 2023, respectively. They filled in the questionnaires a day before each test was administered. In short, the implementation of the experiment was started by making the groups filled in two sets of questionnaire in chunk and took the pre-test that helped the researcher to check the proficiency level of the participants of each sample group and compare each group's results after the completion of the implementation, went on through instruction of two modes of strategy training for three months or twelve weeks (for 14 actual hours) starting from the 24th of October 2022, and

ended with getting the groups to fill in the same questionnaires used in the beginning of the implementation and took the teacher-made post-test after the intervention on the 13th of January 2023.

3.6 Research Procedure

Every important procedure of the research project was carried out for this study. Before conducting the main study, research tools that were checked and improved during the pilot study were prepared. To carry out the pilot study activity, permission was obtained from the administrations and the participants of Yekatit 25/67 Secondary School. As the next step, two questionnaires and a pre-test were administered to two sample groups of the school before implementing strategy training. After this, the two selected intact groups were assigned randomly as treatment and control groups. Following this, strategy training was implemented for the groups for eight weeks, 10 hours, from 01/12/2021 to 29/01/2022. After the completion of the training, the same questionnaires that were filled in in the beginning (before starting the training) and a post-test were administered. Based on the evaluations of the tools, necessary improvements were made and the tools were ready for the main study.

After the necessary improvements of the tools were made, the main study was carried out following similar procedures as that of the pilot study. Permissions were obtained from the administrations and the participants of Heto Secondary School. Then, the two questionnaires and the pre-test were administered before assigning the two intact groups as experimental and control groups. Following this, strategy training of the main study was carried out for twelve weeks from Monday 24 October 2022 to Friday 13 January 2023; immediately after the completion of the training, the same questionnaires and the teacher-made post-test were administered (See App. A4, B1 & B2). The data obtained from the main study were, then, analysed quantitatively by using different and appropriate statistical

procedures. The data were analysed in the same order of the objectives of the study. The analysed data were, then, presented and interpreted according to the objectives of the study. Finally, discussions, conclusions and recommendations were made accordingly.

3.7 Methods of Data Analysis

All the data gathered through the research tools mentioned in the foregoing sections were analysed quantitatively. Suitable and different statistical procedures of SPSS (Statistical Package for Social Sciences) statistics software, version 25, were employed accordingly.

Prior to analysing data of the study, normality tests were checked. Normality tests were computed to determine whether the distribution of data sets was well-modelled or not. Sample size, outliers and linearity of scores were important aspects considered to check the distribution of data. In addition, it was shown and ensured from the statistics that a lower bound of the true significance was met (See App. F1). After ensuring normality tests, suitable statistical tools were employed to analyse the data of the study.

Based on the assumptions about the underlying distribution of data, a two-sample t-test of parametric test of means was applied. In parametric test, each group should be more than 15 observations.

T-Test was the main method of data analysis of this study. Data were computed using T-test to look at statistical significance of differences between groups or variables of the study. Within the T-Test, Independent Samples T-Test (to use Independent Samples Test), Cohen's d, Paired Samples T-Test (to use Paired Samples Test) and Pearson's correlation coefficient (to use Pearson's r) were used.

Independent Samples Test was used to compare means of groups, particularly, experimental group and control group. In other words, this statistical test was used to look at statistical significance or difference between means of two continuous variables, in this case, pre-test and post-test scores, and self-reported scores of data obtained through questionnaires both before and after the intervention. Thus, Independent Samples Test was used to compare significant differences between these two groups. Means of pre-test and post-test as well as self-reported scores of the groups were compared. Ordinal data obtained through questionnaires were transformed so that they would be with many scales (continuous) for further processes.

To see how far each score of participants from means, Standard Deviations (SD) were calculated where necessary. In relation to Independent Samples Test of continuous variables, Cohen's d and Pearson's r was employed to check the strength and the directions of the relationships of the groups.

In addition to Independent Samples Test, Paired Samples Test was computed to compare significant differences between two variables, that is, the mean scores of pre-test and post-test as well as the self-reported scores of questionnaires of each group. This would tell whether or not each group showed statistically significant difference because of the strategy training of two different modes. In relation to Paired Samples Test of continuous variables, Pearson's correlation coefficient (to use Pearson's r) was used to look at the strengths and the directions of the relationships between these two continuous variables, particularly the pre-test and the post-test scores of each group. Furthermore, Pearson's correlation coefficient was computed to determine the strengths and the magnitudes of the relationships between the two transformed continuous variables of each questionnaire.

For the analysis of the data, every appropriate statistical tool was employed where necessary to appropriately address the research objectives of the study. To ensure the homogeneity of the groups, the means of the pre-test were compared prior to the intervention. To see possible differences of the groups after the intervention, the means of the post-tests were compared. To see the relationships between the groups, mean scores of data obtained through questionnaires both before and after the intervention were calculated.

In group statistics, mean (M) and Standard Deviations (SD), have been put in tables, in analysis section (Chapter Four) below. In relation to Independent Samples Test, p-value, level of significance, sig. (2- tailed), has been reported with t and df in the form of (t, df, sig). Significance level of 95% or p-value <0.05 has been taken as a cut point for the statistical analysis.

In relation to Paired Samples Test, in addition to means and Standard Deviations, Pearson's correlation coefficient (Pearson's r) for continuous variables of tests and ordinal variables with many scales (continuous) of questionnaires were utilized and presented accompanied by group statistics in simplified tables. Pearson's r would tell both the strength of the relationships and the directions of paired variables. This is where and how to understand possible differences of paired variables (scores) as a result of the intervention of the study.

As a second major method of data analysis, multiple linear regression was used. This method was employed to examine whether metacognitive reading strategy awareness and reading motivation were predictors of reading performance or not; Beta was used to determine which independent variable of the two was stronger in predicting the dependent or outcome variable, that is, reading performance.

Finally, in cases the two groups were described or presented, experimental group was put prior to control group according to the order of the labelling during coding. During the groups' coding, the experimental group was coded as '1' and the control group as '2'.

3.8 The Pilot Study and Lessons Gained

Pilot study of this quasi-experimental research was carried out for eight weeks, from 01/12/2021 to 29/01/2022 at Hosanna Town, Yekatit 25/67 Secondary School. For the study, two groups, experimental group (section F) and control group (section G), were randomly assigned. Each group was taught a total of ten hours within eight weeks; in other words, each group was taught two times a week, that is, a period of 40 minutes each time. The groups were administered two tests: pre-test and post-test before and immediately after the intervention respectively. Following the intervention, two sets of questionnaire were filled in on 02/02/2022 before the post-test was administered. Data collected through tests and questionnaires were analysed and essential lessons gained through the pilot study were utilized to improve tools for the main study. These pieces of information have been presented in detail below.

3.8.1 The purposes of the pilot study

It is believed that the main purpose of conducting a pilot study is to examine the feasibility of an approach that is intended to be used in a larger scale study. Accordingly, the pilot study of this research had four purposes that were considered. The first purpose was to examine the validation of the research tools used for the main study. The second purpose was to evaluate suitable statistical methods of data analysis for the main study. The third purpose was to ensure the feasibility of the training materials and the data collecting tools

for the main study in terms of time and duration. The fourth purpose was to gain additional and essential lessons for the main study conducted.

3.8.2 Research design of the pilot study

A quasi-experimental research design was used for this pilot study. This design was applied to test students' reading performance of two different modes of cognitive reading strategy training of two different groups (treatment and conventional) quantitatively. Quantitative approach of the study allowed applying statistics in analysing numerical data.

3.8.3 Participants of the pilot study

The population of this pilot study was Grade 9 students of a public school in Hosanna Town. Yekatit 25/67 Secondary School was randomly selected from four public schools in the town. Among 12 groups (sections) of Grade 9 of this school, two intact groups (sections F and G) were further randomly selected. Section F and section G were assigned randomly as experimental group and control group respectively. Though there were more than 40 students in each group, only a total of 70 students, 35 students from each group, who took both the pre-test and the post-test and filled in the questionnaires, participated in this pilot study.

3.8.4 Instruments of the pilot study

To gather data for the pilot study, two teacher-made tests and two sets of questionnaire were employed.

The first tool, a pre-test and a post-test, was employed to gather data from both experimental and control groups. Both tests were parallel home-made tests. All the

participants of the groups were given the pre-test before starting strategy training and the post-test after intervention of the strategy training of the groups. Both tests were prepared and evaluated before starting intervention, that is, before administering the pre-test. Each test consisted of 30 objective test questions (items). Each test comprised three parts such as fill-in the blank space with one or two words (five questions), multiple-choice (19 questions) and matching (six questions).

The teacher-made pre-test was administered for the research participants before randomly assigning the two intact groups as experimental group and control group. This pre-test enabled the researcher to understand the participants' current proficiency level of reading comprehension ability that the participants had before they were provided with the strategy training. This performance of reading ability was measured by scores of the participants obtained from the pre-test. These scores were carefully recorded and used to compare the two groups. They were also used to make comparison between the groups and scores of each group by using the scores of their post-test which was administered immediately after the intervention.

As a second tool of pilot study, a questionnaire of metacognitive reading strategy awareness and a questionnaire of reading motivation were used to measure participants' self-reported awareness and motivation of reading respectively. The two sets of questionnaire were utilized both before the beginning and after the ending of the strategy training.

To gather data concerning students' metacognitive reading strategy awareness, after a great deal of search and study of the previous studies, a standard questionnaire called Metacognitive Awareness of Reading Strategy Inventory (MARSI) version 1.0 by

Mokhtari and Reichard (2002) was adopted. The basic underlying purpose to devise such an instrument was to measure "the degree to which a student is or is not aware of the various processes involved in reading" (Mokhtari & Sheorey, 2002, p. 251). The questionnaire had a total of 30 items and comprised three dimensions, namely Global Reading Strategies consisting of 13 items, Problem Solving Strategies consisting of 8 items and Support Reading Strategies consisting of 9 items. It used a five-point Likert scale: 1 means "I never or almost never do this", 2 means "I do this only occasionally", 3 means "I sometimes do this" (About 50% of the time), 4 means "I usually do this", 5 means "I always or almost always do this."

The same questionnaire was administered both before and after the intervention. The questionnaire of the first round was administered before administering pre-test and assigning the two groups as experimental and control; the questionnaire of the second round was administered immediately after the completion of reading strategy training but before the post-test was administered. The purpose of the first round self-report of the questionnaire was to understand what awareness the participants had about their metacognitive reading strategy. The purpose of the second one was to check if the participants in the two groups had changed the positions of their self-reported awareness regarding metacognitive reading strategy they showed in the first round self-report of the questionnaire or not. This enabled to realise direct contributions of the two different modes of reading strategy training on metacognitive reading strategy awareness. The students' self-reported responses, in turn, enabled to understand the interplay among explicit cognitive reading strategy training, reading comprehension performance and metacognitive reading strategy awareness. To get reliable and valid answers from the students, and because the students were non-English specialists, the researcher translated the metacognitive strategies questionnaire from English (their foreign language) into Amharic (their second language). So, the participants were provided with both English and Amharic

versions side by side. This was used after it had been revised and evaluated by experts in the field.

It has been reported that the validation processes in the development of the instrument was made by the developers of the questionnaire and its internal consistency estimate of reliability was calculated. The reliability of the instrument, the Metacognitive Awareness of Reading Strategy Inventory (MARSI) by Mokhtari and Reichard (2002), was reported at .93, indicating a reasonably reliable questionnaire to measure the metacognitive awareness of reading strategies. In addition to this, Cronbach's Alpha coefficients of the self-reported responses of the participants of this pilot study was calculated; the same Cronbach's Alpha .855 was obtained from students' self-reports of the questionnaire administered both before and after the intervention.

Another set of questionnaire employed to gather data from research participants about their reading motivation was 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). Erten et al. (2010) developed the questionnaire to explore undergraduate university students' motivation and attitudes towards reading in a foreign language (FL) in Turkey. The questionnaire consisted of four factors, namely intrinsic utility value of reading, reading efficacy, extrinsic utility value of reading and foreign language linguistic utility. It was in a five-point Likert scale format from strongly disagree (1) to strongly agree (5).

The questionnaire consisted of 31 items of the four factors. The factors, that is, intrinsic utility value of reading, reading efficacy, extrinsic utility value of reading and foreign

language linguistic utility contained sixteen, six, five and four items, respectively. The final version of the questionnaire items (Torudom & Taylor, 2017) was used.

Similar to the questionnaire of metacognitive reading strategy awareness, this questionnaire was administered both before and after the intervention. The questionnaire of the first round was administered 30 minutes after the metacognitive reading strategy awareness questionnaire was administered; the questionnaire of the second round was administered 30 minutes after the metacognitive reading strategy awareness questionnaire was administered at the end of the reading strategy training but before administering the post-test.

According to Erten et al. (2010), validation processes in the development of this instrument were taken and the reported internal consistency estimate of reliability for the overall Cronbach's Alpha coefficient of the subscales was 0.714, 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 pilot study were calculated; Cronbach's alpha .851 (of pre-self-report) and .788 (of post-self-report) were obtained. This shows that the tool was reliable to use.

The pilot study had clear procedures to follow. Before the participants took the pre-test and filled in the questionnaire, prior to 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 before gathering data. Then the participants filled in the questionnaires, one at a time. Afterwards, they took the pre-test. Following this, the experimental group was taught six cognitive reading strategies such as repeating, reasoning deductively, analysing expressions, taking notes, summarising and highlighting explicitly (Oxford, 1990);

whereas, the control group was taught the conventional one, that is, the approach that was actually presented in the Students' Textbook of 'Grade 9 English for Ethiopia'. The cognitive reading strategies presented in the Students' Textbook did not actually invite teachers to teach them plainly. 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. Second round self-reported questionnaire and post-test data were collected after the intervention, in the very beginning of February 2022. Each group of the 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 using SPSS, version 25.

3.8.5 Data analysis methods of the pilot study

Normality tests were computed to determine whether the distribution of data sets was well-modelled or not. It was shown from the points plotted in the QQ plot that normal data fell approximately on a straight line, indicating high positive correlation. These plots also helped to identify outliers easily. The normal probability curve of a histogram of the sample data was also compared.

After checking the distributions of the data sets, T-Test of SPSS, version 25, was used to analyse the quantitative data collected by the two tests. To compare the two groups, Independent Samples Test was applied. To compare scores of each group, Paired Samples Test was applied. Cohen's d and Pearson's r were employed to determine the strengths of the relationships of the mean scores of the tests. As the ordinal data were transformed to be continuous, the same Pearson's r was computed to determine the strength of the relationships of the self-reported questionnaire data of the two groups.

3.8.6 Findings of the pilot study

3.8.6.1 Descriptive statistics of pre-test and post-test

Four research objectives were set for this pilot study. The first null hypothesis was that **"There is no significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their reading performance."** The data gathered to answer this question were computed using T-test to check statistical significance of relationships of variables, and Cohen's d and Pearson's r were used to check the strength of the effect of the relationships. To present data in a simplified way, findings that would go together or that needed to be closely explained have been merged as quantified in tables below. The group statistics and the Independent Samples Test have been put together in Table **3.2** below.

Table 3.2

Comparison of **pre-test** mean scores of reading ability of the groups

Group Statistics				Independent Samples Test		
Group	N	M	SD	t	df	Sig (2-tailed)
Experimental	35	16.46	6.478	-.668	68	.**100**
Control	35	19.03	6.419			

As Table 3.2 above shows, although the distance (SD = 6.478 and SD = 6.419) from the means (M = 16.46 and M = 19.03) of experimental group and control group, respectively, is similar, it seemed that control group better performed (by 2.57) in pre-test which was

administered to check if the current reading ability status of the two groups was similar before the intervention or not. However, the p-value = **.100** (t = -.668, df = 68, sig **.100**) showed that there was no statistically significant difference between reading ability of the two groups as p-value above .05 shows that the relationship is not significant. As Cohen's d (d = 0.399) showed, the effect of the relationship was modest (between 0.21-.50). The result showed that both experimental group and control group of the pilot study did not have different reading ability before the intervention; or the two groups were similar in reading ability.

Table 3.3

Comparison of **post-test** mean scores of reading ability of the groups

Group Statistics				Independent Samples Test		
Group	N	M	SD	t	df	Sig (2-tailed)
Experimental	35	15.80	6.738	-.140	68	**.889**
Control	35	16.03	6.968			

Table 3.3 above shows that, like to the distance (SD = 6.738 and SD = 6.968) from the means (M = 15.80 and M = 16.03) of both experimental and control groups, respectively, seem closely related; the difference between the two means was only 0.23. However, the p-value = **.889** (t = -.140, df = 68, sig **.889**) showed that the post-test mean score of the groups was not statistically significant. Cohen's d (d = 0.034) also showed that the effect of the relationship (between 0-0.20) was weak.

To check if any change had been shown after the intervention, both the pre-test and the post-test scores of each group was calculated by using Paired Samples Test for significance level and Person's Product Moment Coefficient for the strength of relationships of the variables. This has been shown in Table 3.4 below.

Table 3.4

Comparison of pre-test and post-test mean scores of experimental group's reading ability in Paired Samples Test

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

As it can be seen from Table 3.4 above, the means (M = 15.80 and M = 16.46) of pre-test score and post- test score of experimental group, respectively, seem similar; the difference is only 0.66; in this case, the pre –test seems a bit better than the post-test. The distance (SD = 6.738 and SD = 6.478) from the means also seems similar (difference = 0.26). However, the p-value = **.000** (r = .570, sig = **.000**) showed that there was statistically significant relationship between the two variables as the p-value was below 0.001. The effect size (r = .570) given in the same table also showed that the relationship of the variables was strong and positive (if the pre-test score of the experimental group increased, the post-test score would also increase and vice versa).

Table 3.5 below shows the relationship of the pre-test and the post-test scores of the control group. Similar to Table 3.4, Paired Samples Test to check the relationship of the two variables and Pearson's r to check the strength of the relationship were used.

Table 3.5

Comparison of pre-test (Score 1) and post-test (Score 2) mean scores of control group in Paired Samples Test

Group statistics						
Group	Score	N	M	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 3.5 above shows that the mean of the pre-test score of control group seems greater than the mean score of the post-test (M = 19.03 and M = 16.03), respectively, by 3.00. Again, the distance (SD = 6.419 and SD = 6.968) seems relatively similar. As it is shown in the last column of the table (t = 2.069, df = 34, sig = **.299**), p-value = **.299** indicates that there was no statistically significant relationship between the variables as the p-value is above 0.05. In the same table, the effect size (r = .181) showed that the relationship of the variables was modest and positive (if the pre-test score of control croup increased, the post-test score would also increase and vice versa).

3.8.6.2 Contribution of cognitive reading strategy training to metacognitive reading strategy awareness

The second research hypothesis was that **"There is no significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their cognitive reading strategy awareness.**" To answer this question, the groups' self-reported scores of metacognitive reading strategy awareness administered both before and after the intervention were compared using Independent Samples Test as shown in tables 3.6 and 3.7 below. Similarly, to check whether there was any change between the groups after the intervention, each group's self-reported score before the intervention was compared with its self-reported score after the intervention using Paired Samples Test as in tables 3.8 and 3.9. Pearson's r was also computed to determine relationships. Both descriptive statistics and Spearman's correlation coefficients have been presented in merged tables for the sake of simplification as shown in the mentioned tables.

Table 3.6

Comparison of both experimental and control groups before the intervention

Group statistics					Independent Samples Test		
	Group	N	M	SD	t	df	Sig (2-tailed)
Pre-reading strategy	Experimental	35	101.43	18.833	.917	68	**.363**
	Control	35	97.49	17.111			

Self-reported mean scores of metacognitive reading strategy awareness of the groups were analysed using Independent Samples as shown in Table 3.6 above. As can be understood from the table, the means (M = 101.43 and M = 97.49) of experimental group and control group, respectively, depict that there seems slight difference is observed. Similarly, the distance (SD = 18.833 and SD = 17.111) from the mean of each group, respectively, shows slight differences. However, as shown in the last column of the table, p-value is more than

.05 (t = .917, df = 68, p = **.363**), and thus, there was no statistically significant relationship between the two groups concerning their self-reported metacognitive reading strategy awareness. Similarly, Cohen's d (d = 0.219) showed that there was a positive modest relationship between the groups. This indicates that both control and experimental groups had similar metacognitive reading strategy awareness before the intervention.

After ensuring that both experimental and control groups had similar metacognitive reading strategy awareness and, after completing applying intervention, their self-reported data of metacognitive reading strategy awareness was collected using the same tool as before. The data obtained has been put in Table 3.7 below.

Table 3.7

Comparison of experimental and control groups after the intervention

Group statistics					Independent Samples Test		
	Group	N	M	SD	t	df	Sig (2-tailed)
Post-reading Strategy	Experimental	35	108.51	17.986	-1.776	68	**.080**
	Control	35	115.23	13.289			

Self-reported mean scores of metacognitive reading strategy awareness of the groups were analysed using Independent Samples as shown in Table 3.7 above. As the table shows, the means of experimental group and control group (M = 108.51 and M = 115.23), respectively, seemed different. As this (6.72 of mean difference) shows, it seems that there was difference of reading strategy awareness between the two groups. The Standard Deviations of the groups (SD = 17.986 and SD = 13.289) showed that the scores did not have similar distance from the respective means of the groups. However, the p-value, p=**.080** (t = -1.776, df = 68, sig = **.080**) showed that there was no statistically significant

relationship between the groups in terms of their metacognitive reading strategy awareness after the intervention. As Cohen's d (d = .430) showed, there was positive and modest relationship between the groups.

Tables 3.8 and 3.9 below show paired self-reported scores of the two groups before and after the intervention. The scores were calculated using Paired Sample Test. Spearman's correlation coefficients have been put together with group statistics in the tables.

Table 3.8

Comparison of self-reported mean scores of strategy awareness of the experimental group

Group statistics					Paired Samples Test	
Group	Strategy Score	N	M	SD	Pearson's r	Sig (2-tailed)
Experimental	Score 1	35	101.43	18.833	.061	**.726**
	Score 2	35	108.51	17.986		

Table 3.8 above shows self-reported mean scores of metacognitive reading strategy awareness of experimental group in Paired Samples Test. The table depicts that, although the Standard Deviations of score 1 and score 2 (SD = 18.833 and SD = 17.986) seem similar, the mean of score 2 (M = 108.51) of the group increased by 7.08 from the mean of score 1 (M = 101.43). In the same table, the p-value, p = **.726** (rho = .061, sig = **.726**) showed that the relationship was not statistically significant. Also it had a weak (r = .061) and positive relationship; this means that the order of one variable increased, the order of the other also increased and vice versa. This indicates that explicit cognitive reading strategy training could not bring a significant change on students' metacognitive reading strategy awareness.

Table 3.9

Comparison of self-reported mean scores of strategy awareness of the control group

Group statistics					Paired Samples Test	
Group	Strategy Score	N	M	SD	Pearson's r	Sig (2-tailed)
Control	Score 1	35	97.49	17.111	-.025	**.888**
	Score 2	35	115.23	13.289		

Table 3.9 above shows self-reported mean scores of metacognitive reading strategy awareness of control group in Paired Samples Test. As the table shows, it seems that there was difference between the means of the group. The mean of score 2 (M = 115.23), that is, the self-reported score of metacognitive reading strategy awareness after the intervention, showed increment (by 17.74) from the mean of score 1 (M = 97.49). Also difference between Standard Deviations (SD = 17.111 and SD = 13.289) was observed by 4.451, which means the distance mean score 2 was smaller and better) than that of mean score 1. However, as the p- value = **.888** (r= -.025, sig = **.888**) of Pearson's correlation coefficient in the last column in the current table depicted, the relationship between the two scores was not statistically significant, and the relationship was weak and negative (r = -.025); this means that if the rank order of one variable increased, the rank order of the other would decrease and vice versa.

3.8.6.3 Contribution of cognitive reading strategy training to reading motivation

The third research hypothesis was that "**There is no significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their reading motivation.**"

To achieve this objective, the groups' self-reported scores of reading motivation before and after the intervention were compared using Independent Samples Test as shown in tables 3.10 and 3.11 below. Similarly, to check whether there was any change between the groups after the intervention, each group's self-reported score before the intervention was compared with its self-reported score after the intervention using Paired Samples Test as in tables 3.12 and 3.13. Pearson's r was also computed to determine the strength of relationships of these variables. Both descriptive statistics and Pearson's correlation coefficients have been presented in merged tables for the sake of simplification as shown in the mentioned tables.

Table 3.10

Comparison of experimental and control groups of reading motivation before the intervention

Group statistics					Independent Samples Test		
	Group	N	M	SD	t	df	Sig (2-tailed)
Pre-reading motivation	Experimental	35	103.60	18.290	-1.573	68	**.120**
	Control	35	110.20	16.780			

Table 3.10 above shows self-reported mean scores of reading motivation of both experimental and control group in independent Samples Test. As the table shows, the means (M = 110.20 and M = 103.60) of self-reported scores of both experimental and control groups, respectively, seem nearly similar. The distance from the means, Standard Deviations (SD = 16.780 and SD = 18.290) also seems slightly similar. However, as the p-value, p=**.120** (t=-1.573, df=68, sig=**.120**) was greater than .05, there was no statistically significant relationship between the two groups concerning reading motivation before the

intervention; as Cohen's d (d = 0.376) showed, the effect of the relationship was negative and modest, which was between 0.21-.50.

Table 3.11

Comparison of experimental and control groups of reading motivation after the intervention

Group statistics					Independent Samples Test		
	Group	N	M	SD	t	df	Sig (2-tailed)
Post-reading motivation	Experimental	35	113.26	15.589	1.896	68	**.062**
	Control	35	106.71	13.179			

Table 3.11 above shows self-reported mean scores of reading motivation of both experimental and control group in independent Samples Test. In the table, as the means (M = 113.26 and M = 106.71) of control and experimental groups, respectively, depict, slight difference was observed. The Standard Deviations (SD = 15.589 and SD = 13.179) of the respective groups showed that the groups seem to have different distances from their respective means. As the p-value, p = **.062** in the table showed, there was no statistical difference between the two groups concerning reading motivation. As Cohen's d (d = 0.455) showed, the effect of the relationship was positive and modest, which was between 0.21-.50.

Table 3.12

Comparison of self-reported mean scores of reading motivation of the experimental group

Group statistics					Paired Samples Test	
Group	Motivation Score	N	M	SD	Pearson's r	Sig (2-tailed)
Experimental	Score 1	35	103.60	18.290	.032	.853
	Score 2	35	113.26	15.589		

Table 3.12 above shows self-reported mean scores of reading motivation of experimental group in Paired Samples Test. The table shows that a difference (by 9.66) of mean scores of reading motivation of experimental group between score 1 and score 2 (Mean = 103.60 and M = 113.26), respectively, was observed. Difference of Standard Deviations (SD = 18.29 and SD = 15.589) from the means was also observed. The p-value, p = **.853**, (r = .032, sig = **.853**), which was above .05, indicates that statically significance relationship was not seen between self-reported scores of reading motivation of experimental group before and after the intervention. The strength of the effect of the relationship was weak and positive. If score 1 of reading motivation were high, score 2 would be also high and vice versa. This finding is also interesting and questionable as, unlike to the control group, the group with especial treatment showed no improvement of reading motivation.

Table 3.13

Comparison of self-reported mean scores of reading motivation of the control group

Group statistics					Paired Samples Test	
Group	Motivation Score	N	M	SD	Pearson's r	Sig (2-tailed)
Control	Score 1	35	110.20	16.780	-.386	.022
	Score 2	35	106.71	13.179		

Table 3.13 above shows self-reported mean scores of reading motivation of control group in Paired Samples Test. As the table shows, little difference (3.49) of mean scores of reading motivation of control group between score 1 and score 2 (Mean = 110.20 and M = 106.71) was observed. Difference of Standard Deviations from the means was also observed. However, the p-value, p = **.022**, (r = -.386, sig = **.022**), which was below .05, indicates that there was statically significance relationship between self-reported scores of reading motivation before and after the intervention. The strength of the effect of the relationship was 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 as the group without any especial treatment showed improvement of reading motivation.

3.8.6.4 Indirect contributions of predictors to effect variable

The fourth and the last research hypothesis was that "**When students are trained cognitive reading strategy explicitly/implicitly metacognitive reading strategy awareness and reading motivation are not predictors of reading performance, and both of them are weak in predicting.**" This question of the pilot study was answered using multiple linear regression analysis as shown in tables 3.14 and 3.15 below.

Table 3.14

Post-self –reported results of metacognitive reading strategy awareness and motivation as predictors of reading comprehension

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.244[a]	.059	.031	6.698

a. Predictors: (Constant): Post-Reading Strategy, Post-Reading Motivation

The model summary of multiple linear regressions in Table 3.14 above shows the overall fit statistics. In the model, R Square (R^2 = .059) explains 5.9% of variance in reading comprehension. To be specific, 5.9% variation in reading comprehension was due to the predictors. In other words, if 100% of success in reading comprehension were taken, only 5.9% would be contributed by the predictors, both metacognitive reading strategy awareness and reading motivation. In the fourth column of the table, the Adjusted R^2 of the model (R^2 = .031) shows that it was a poor fit.

Table 3.15

Comparison of the Beta coefficients of the independent variables

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	sig
1	(Constant)	.131	8.476		.015	.988
	Reading Strategy	.035	.050	**.083**	.696	.489
	Reading Motivation	.108	.055	**.233**	1.966	.053

a. **Dependent Variable**: Reading Comprehension (Post-test Score)

Table 3.15 above provides useful information about each of the predictor variable and the effect or outcome variable. As the p-value obtained was p = >.05, there was no statistically significant relationship between each of the predictors and reading comprehension. The standardized coefficients showed that metacognitive reading strategy awareness (Beta = **.083**) with a weak effect, was weaker than that of reading motivation (Beta = **.233**) with a modest effect. The output of B for metacognitive reading strategy (B = .035) and for reading motivation (B = .108) showed that if reading comprehension went up by 1 in score, it would go up and got stronger by .035 and .108, respectively, and vice versa.

3.8.7 Lessons gained from the pilot study

The main purpose of conducting a pilot study is to examine the feasibility of an approach that is intended to be used in a larger scale study. Thus, the researcher of the current pilot study had gained valuable lessons for the main study.

Firstly, the researcher learned that research tools would be administered in order to achieve the intended research purposes. To this end, the researcher gained some lessons related to test and test taking environment during the pilot study. This means that intervening variables were controlled during the main study as much as possible. This was done by improving both the pre-test and the post-test to be closely parallel. In addition, the 100 participants of the study were made to take these tests in four different confortable rooms (25 students in one room) in the morning (3:00 to 5:00 AM) with four invigilators, excluding the researcher. The researcher facilitated the whole process while the students were taking the tests. This way of test administration enabled that each participant of the study would do only his/her own test confidently in a confortable room and convenient time. The researcher gained these lessons during the pilot study. During the pilot study, the test takers sat closely (in two rooms) and tried to cheat or copy from each other. Also the rooms where the participants took the tests during the pilot study were not as comfortable as the ones during the main study. Moreover, as gender and ages of the participants could be other intervening variables, these were seriously considered during the main study. In this case, both groups of the main study were much similar.

Secondly, the researcher got opportunity to improve the research tools based on the actual practices carried out before, during and after the intervention of the pilot study. This enabled the researcher to ensure the validation of the tools. As both the pre-test and the

post-test were homemade, a lot of improvements were made because of this pilot study. During the pilot study, each test had three parts; but this had been four parts (including True/False items) for the main study.

Thirdly, the researcher learned to improve how to deliver strategy training so as to meet the objectives of the study. The researcher learned how to follow up how target strategies were taught for both groups explicitly/implicitly respectively. The researcher had time to discuss delivery related issues with the teacher assigned to teach the strategies.

Fourthly, the researcher learned concerning right time and duration to be applied during the main study. As mentioned earlier, morning time was preferable to take tests. Similarly, class time for both groups was adjusted as conveniently as possible during the main study. Similar and ample time was allowed to take tests during the main study.

Lastly, the researcher gained lessons and practices about data analysis. Data were analysed using SPSS, version 25, in bath cases. This pilot study enabled the researcher that different suitable statistical tools could be used to analyse data according to each objective of the study.

CHAPTER FOUR: RESULTS AND DISCUSSIONS

4.0 Introduction

In Chapter Three above, the research methodology of the study as well as the findings of the pilot study and lessons learnt from it have been presented. Under this chapter of the main study, both presentation and analysis of the data and discussions have been presented.

Under the presentation and analysis section of the chapter, the quantitative data gathered through two parallel tests and two sets of questionnaire have been analysed using suitable statistical methods described in the data analysis section of Chapter Three. Under the result section, following the background information such as gender and age of the participants of the two groups, the quantitative data gathered were analysed and presented in the order of the research questions or the hypothesis formulated. The data were analysed and presented according to the order of the research questions in simplified tables for the sake of convenience. Unless differently described, the Level of Significance, $p < 0.05$, has been used for statistical analysis of the data.

Then, the findings of the study have been discussed in the order of the research questions asked and in relation to the findings and theories in the literature.

4.1 Results

4.1.1 Background information of the main study

Before analysing the data of the two quasi-experimental groups, it was necessary to describe that the possible factors of gender and age of the participants of the two intact groups were statistically controlled before the intervention. This background information has been shown in Tables 4.1 and 4.2 below.

Table 4.1

Sex-group crosstabulation of the groups

			Group		Total
			Experimental	**Control**	
Sex	**Male**	Count	22	23	45
		Percent	22%	23%	45%
	Female	Count	28	27	55
		Percent	28%	27%	55%
	Total	Count	50	50	100
		Percent	50%	50%	100%

Table 4.1 above shows the proportion of gender of the groups. As can be understood from the same table, the size of the participants of both groups were equal, that is, 50 students in each group. In addition, the size of gender in both groups was nearly the same: 22 and 23 male participants, and 28 and 27 female participants of experimental and control groups respectively. This indicated that the findings of this study would not be affected significantly by the size of sample (the same sample size throughout the work of the main study) and difference of gender. In other words, Sample size and gender difference were controlled before the commencing of the strategy training.

The next table shows the similarity of the mean of age of the two groups in Independent Samples Test.

Table 4.2

Comparison of the age of the groups

Group Statistics					Independent Samples Test		
	Group	N	M	SD	t	df	Sig (2-tailed)
Age	Experimental	50	16.14	.857	-1.617	98	**.109**
	Control	50	16.44	.993			

Table 4.2 above shows that the means (M = 16.14) and (M = 16.44) of experimental and control groups, respectively, were similar. Besides, the probability value, p = **.109,** (t = -1.617, df = 98, sig .**109**) showed that statistically significant difference was not found between the age of the participants of the two groups. This means that the participants of the study were similar in their level of age as statically controlled before the groups received the strategy training.

After the similarities of sample size, gender and age of the participants of the two groups had been checked, data were gathered using the tools mentioned in the foregoing sections. These data have been analysed and presented in the same order of the research questions/research hypothesis as described below..

4.1.2 The contribution of strategy training to reading performance

Hereunder, the findings of the data gathered through the pre-test and the post-test have been presented following the objectives (hypothesis) of the study.

The first hypothesis of the study was:

H0: There is no significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their reading performance.

H1: There is a significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their reading performance.

A total of 100 participants of both the experimental and the control groups, 50 students from each group, were given a pre-test prior to the intervention and a post-test immediately after the intervention. The data gathered through these tests were computed using T-Test to check differences between the two groups and between the pre-test and the post-test mean scores of each group. Cohen's d and Pearson's Product Moment Correlation Coefficients (to use Pearson's r Correlation Coefficients or simply Pearson's r) were calculated to check the strengths of the existing relationships between the groups and the variables (scores). To present data in a simplified way, findings that would go together or that needed to be closely explained have been merged as quantified in the tables below.

Table 4.3

Comparison of the pre-test means of the groups

Group Statistics					Independent Samples Test		
	Group	N	M	SD	t	df	Sig (2-tailed)
Pre-test	Experimental	50	15.04	6.5011	-.694	98	**.489**
	Control	50	15.97	6.8901			

As Table 4.3 above shows, although the distances (SD = 6.5011 and SD = 6.8901) from the means (M = 15.04 and M = 15.97) of experimental and control groups, respectively, were relatively similar, it seemed that the control group better performed (by 0.93) than the experimental group when the pre-test scores were compared. However, without calculating the significance level of the relationship, this mean difference could not show whether or not the difference between the two groups was statistically significant. Thus, the p-value = **.489** (t = -.694, df = 98, sig **.489**) was calculated and showed that statistically significant difference was not found between the reading ability of the two groups as the p-value above .05 tells us that the relationship is not statistically significant. Also, as Cohen's d (d = 0.06) indicated, the effect of this relationship was weak (between 0 - 0.20). The result, therefore, indicated that both the experimental and the control groups were homogeneous in reading ability before the groups received cognitive reading strategy training in different modes. In other words, the participants of both groups were at similar reading proficiency level of reading English texts before they were taught two different modes of cognitive reading strategy. This means that students' pre-test scores of the groups were statistically controlled before the strategy training was commenced.

After the pre-test results of the two groups were statistically controlled before commencing of the intervention, strategy training was carried out and both groups received a post-test after the completion of the strategy training. The findings obtained through this post-test have been quantified in Table 4.4 below.

Table 4.4

Comparison of the post-test means of the groups

Group Statistics					Independent Samples Test		
	Group	N	M	SD	t	df	Sig (2-tailed)
Post-test	Experimental	50	16.96	7.7312	1.673	98	**.098**
	Control	50	14.49	7.3924			

As Table 4.4 above shows, although the distances (SD = 7.7312 and SD = 7.3924) from their respective means seemed similar, the means (M = 16.96 and M = 14.49) of the post-test of the experimental and the control groups, respectively, seemed to be slightly different (by 2.47); the experimental group seemed better performed, in this case. However, it was difficult to say, only by looking at the figures presented, that the difference between the two groups was significant; thus, calculating the significance level of the relationship was needed. Accordingly, the p-value = **.098** (t = 1.673, df = 98, sig .**098**) of the mean scores showed that the difference between the two groups was not statistically significant as the p-value is above .05. Cohen's d (d = 0.326) showed that the effect of the relationship (between .20-.50) was modest. This finding does not, however, necessarily mean that significant difference was not found between the pre-test and the post-test scores of each group.

To see changes that had been shown after the intervention was carried out, the scores of the pre-test and the post-test of the groups were calculated by using Paired Samples Test for the significance level and Person's r correlation coefficients for the strength of the relationship of the two variables(pre-test and post-test scores). This relationship of the variables (scores) of the groups has been shown in Tables 4.5 and 4.6 below.

Table 4.5

Comparison of pre-test and post-test means of the experimental group

Descriptive statistics					Paired Samples Test	
Group	Score	N	M	SD	Pearson's r	Sig (2-tailed)
Experimental	Score 1	50	15.04	6.5011	.643	**.000**
	Score 2	50	16.66	7.3712		

As Table 4.5 above shows, the mean (M = 16.66) of Score 2 showed increment by 1.62 from that of the mean (M = 15.04) of Score 1; in this case, it seemed that the experimental group got improved scores after the group received explicit cognitive reading strategy training. The distances (SD = 6.5011 and SD = 7.3712) from the respective means also seemed different (difference = 0.8701). However, it was difficult to ensure just by looking at these figures that the relationship between the two scores was significant. The last column of the table shows the relationship of the two variables; the p-value = **.000** (r = .643, sig = **.000**) showed that there was a statistically significant relationship between the two variables (Score 1 and Score 2) as the p-value was less than 0.001. The effect size (r = .643) given in the same table also showed that the relationship of the two variables was strong and positive (if the pre-test score of the experimental group increased, the post-test score of the same group would also increase and vice versa). The result indicated that the

teaching of cognitive reading strategies explicitly showed strong and positive influence on students' reading performance.

Table 4.6 below presents the mean scores of the pre-test (Score 1) and the post-test (Score 2) of the control group in Paired Samples Test.

Table 4.6

Comparison of mean scores of control group

Group statistics					Paired Samples Test	
Group	Score	N	M	SD	Pearson's r	Sig (2-tailed)
Control	Score 1	50	15.97	6.890	.584	**.000**
	Score 2	50	14.49	7.392		

Table 4.6 above shows that, unlike the scores of the experimental group, the mean (M = 14.49) of Score 2 decreased from that of the mean (M = 15.97) of Score 1 by 1.48. The distances (SD = 6.8901 and SD = 7.3924) from the respective means of scores 1 and 2, respectively, seemed relatively different. However, as it was difficult to confirm whether or not the difference between the two variables was significant just by looking at the figures, calculating the significance level of the relationship was needed. The last column of the table shows the p-value, p = **.000** (r = .584, sig = **.000**). This p-value indicated that there was a statistically significant difference between the variables as the p-value is less than 0.001, similar to that of the experimental group. Although the post-test mean score of the control group decreased from that of the pre-test mean score, as shown in the same table, the effect size (r = .584) showed that the relationship of the variables was strong and positive (if the pre-test score of the control group increased, the post-test score of the group

would also increase and vice versa). In this sense, students' scores of the group decreased because they were not taught cognitive reading strategy explicitly or because they were taught cognitive reading strategy implicitly.

Significantly strong differences were observed between the reading performances of both the experimental and the control groups after the groups were taught two different modes of cognitive reading strategies. The reading performance of the experimental group desirably increased because of the explicit strategy training; whereas the performance of the control group decreased because of the implicit strategy training. Therefore, the first null hypothesis formulated for the study was rejected. Thus, the alternative hypothesis, there is a significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their reading performance, was accepted.

4.1.3 The contribution of strategy training to strategy awareness

The second hypothesis formulated was:

H0: There is no significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their metacognitive reading strategy awareness.

H1: There is a significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their metacognitive reading strategy awareness.

Metacognitive reading strategy awareness that the groups were administered before and after they received strategy training were compared using Independent Samples Test. To

check whether or not the groups showed changes between the pre-self-reported and post-self-reported scores, the scores of each group were compared using Paired Samples Test as in tables 4.9 and 4.10. Pearson's correlation coefficient was also computed to determine the strength of the relationships of the groups' mean scores. Both descriptive statistics and Pearson's correlation coefficients (Pearson's r) have been presented in merged tables for the sake of simplification as shown in the mentioned tables.

Table 4.7

Comparison of pre-self-reported strategy awareness of the groups

Group Statistics					Independent Samples Test		
	Group	N	M	SD	t	df	Sig (2-tailed)
Pre-reading strategy	Experimental	50	99.36	24.025	-.768	98	**.444**
	Control	50	102.72	19.465			

As Table 4.7 above shows, the means (M = 99.36 and M = 102.72) of experimental and control groups, respectively, depict that there seemed possible difference was observed between the two groups. Similarly, the distance (SD = 24.025 and SD = 19.465) from the respective mean of each group, respectively, showed possible differences between the groups. However, to determine whether or not significant difference was obtained, calculating the level of significance was needed. As shown in the last column of the table, the p-value (p = **.444**) was greater than .05 (t = -.768, df = 98, p = **.444**). Thus, statistically significant difference was not found between the two groups concerning their self-reported metacognitive reading strategy awareness before the groups received strategy training. Similarly, Cohen's d (d = 0.03) showed that there was a weak relationship between the groups. This indicated that both experimental and control groups had similar metacognitive

reading strategy awareness before the strategy training was carried out. In other words, students' self-reported scores of metacognitive reading strategy awareness of the groups were statistically controlled when the strategy training was commenced.

After ensuring that both the experimental and the control groups did not show significantly different metacognitive reading strategy awareness and, after completing the intervention, their self-reported data of metacognitive reading strategy awareness was collected using the same tool, that is, the tool used before the intervention. The data obtained from this second self-report has been put in Table 4.8 below.

Table 4.8

Comparison of post-self-reported strategy awareness of the groups

Group Statistics					Independent Samples Test		
	Group	N	M	SD	t	df	Sig (2-tailed)
Post-reading Strategy	Experimental	50	101.54	18.945	2.270	98	**.025**
	Control	50	92.50	20.84			

Table 4.8 above shows that the means of experimental and control groups (M = 101.54 and M = 92.50) respectively seemed to differ. This (9.04 of mean difference) shows that it seemed that there was difference of reading strategy awareness between the two groups. The Standard Deviations of the groups (SD = 18.945 and SD = 20.84) also showed that the groups did not have similar distances from their respective means. However, without calculating the level of significance, it was difficult to decide whether or not the relationship of the groups was significantly different. In the current table, the p-value, p =

.025 (t = 2.270, df = 98, sig = **.025**), which is less than 0.05 significance level, shows that there was statistically significant difference between the two groups in terms of their metacognitive reading strategy awareness after the intervention. Concerning the strength of the relationship, as Cohen's d (d = .454) showed, was a modest relationship between the groups. Although the relationship between the two groups was statistically significant, the result does not show which group showed self-report improvement of strategy awareness after the strategy training. This would be identified by using Paired Samples Test analysis.

The next two tables, Table 4.9 and Table 4.10, present the relationships of the two variables of each group's self-reported metacognitive reading strategy awareness.

Table 4.9

Comparison of self-reported means of strategy awareness of experimental group

Descriptive statistics					Paired Samples Test	
Group	Strategy Score	N	M	SD	Pearson's r	Sig (2-tailed)
Experimental	Score 1	50	99.36	24.025	-.107	**.459**
	Score 2	50	101.54	18.945		

Table 4.9 above shows pre-self-reported (Score 1) and post-self-reported (Score 2) metacognitive reading strategy awareness of experimental group in Paired Samples Test. The table depicts that the means (M = 99.36 and M = 101.54) of the scores were similar though the Standard Deviations of them (SD = 24.025 and SD = 18.945) seemed different. The difference between the two means was only 2.18. This figure alone does not, however, tell us the level of significance of the two variables. Hence, the level of significance was needed to be calculated, and that is p = **.459** (rho = -.107, sig = **.459**). This shows that the

relationship between the variables was not statistically significant. Also the strength of the relationship of the variables was weak and negative (r = -.107); this means that when one variable increased, the other would decrease and vice versa. This result indicated that explicit cognitive reading strategy training could not bring a significant change on students' metacognitive reading strategy awareness.

Table 4.10

Comparison of self-reported means of strategy awareness of control group

Descriptive statistics					Paired Samples Test	
Group	Strategy Score	N	M	SD	Pearson's r	Sig (2-tailed)
Control	Score 1	50	102.72	19.465	.129	**.370**
	Score 2	50	92.50	20.840		

Table 4.10 above shows pre-self-reported (Score 1) and post-self-reported (Score 2) strategy awareness of control group in Paired Samples Test. As the data in the table show, it seemed that there was a difference between the mean scores of the group. The mean of Score 2 (M = 92.50) decreased by 10.22 from that of the mean Score 1. Also slight difference between the Standard Deviations (SD = 19.465 and SD = 20.840) was observed (only by 1.375), which means the distance of mean Score 2 was larger and worse) than that of mean score 1. However, as these figures alone would not tell us whether or not the difference between the two variables significant, calculating the level of significance was needed. The p- value = **.370** (rho= .129, sig = **.370**) of Pearson's correlation coefficient in the last column in the table tells us that difference. The p-value showed that the relationship between the two scores was not statistically significant, and the relationship was weak and positive (r = .129); this means that if one variable increased, the other would also increase

and vice versa. This result indicated that the mode of cognitive reading strategy training could not bring a significant change on students' metacognitive reading strategy awareness.

Significant differences were not observed between the pre-self-reported and the post-self-reported metacognitive reading strategy awareness of both the experimental and the control groups after the groups were taught the two different modes of cognitive reading strategies. Also the relationships of the variables of both groups were weak. Therefore, the second null hypothesis formulated, that is, both explicit and conventional (implicit) modes of cognitive reading strategy training do not contribute to the awareness of metacognitive reading strategy of students when their pre-self-reported scores are statistically controlled was confirmed. The results showed that both explicit and implicit cognitive strategy training did not significantly contribute to students' metacognitive reading strategy awareness.

4.1.4 The contribution of strategy training to reading motivation

The third null hypothesis formulated was:

H0: There is no significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their reading motivation.

To check this, self-reported scores of reading motivation of the two groups before and after the groups were taught reading strategies were compared using Independent Samples Test as shown below. Similarly, to check whether or not the groups showed changes after the intervention, each group's self-reported score before the intervention was compared with its self-reported score after the intervention using Paired Samples Test as in tables 4.11 and 4.12. Pearson's correlation coefficient was also computed to determine the strength of the

relationships of these variables. Both descriptive statistics and Pearson's correlation coefficients have been presented in merged tables for the sake of simplification as shown in the mentioned tables below.

Table 4.11

Comparison of pre-self-reported reading motivation of the groups

Group Statistics					Independent Samples Test		
	Group	N	M	SD	t	df	Sig (2-tailed)
Pre-reading motivation	Experimental	50	101.72	19.525	-1.801	98	**.075**
	Control	50	107.88	14.262			

As Table 4.11 above shows, the means (M = 101.72 and M = 107.88) of the pre-self-reported scores of both experimental and control groups, respectively, seemed nearly similar. The distances from the respective means, Standard Deviations (SD = 19.525 and SD = 14.262), also seemed slightly similar. However, as the p-value, p=**.075** (t=-1.801, df=98, sig=**.075**), was greater than .05, statistically significant difference was not found between the two groups concerning reading motivation before the participants were provided with the strategy training. Cohen's d (d = 0.06) showed that there was a weak relationship between the groups (between 0-0.20). This indicated that both experimental and control groups had similar motivation of reading before the strategy training was carried out. In other words, students' self-reported scores of reading motivation of the groups were statistically controlled when strategy training was commenced.

After ensuring that both experimental and control groups had similar reading motivation before the intervention, strategy training was carried out and then their self-reported reading motivation was collected using the same tool. The scores of the groups have been presented as shown in Tables 4.12 to 4.14 below.

Table 4.12

Comparison of post-self-reported reading motivation of the groups

Group Statistics					Independent Samples Test		
	Group	N	M	SD	t	df	Sig (2-tailed)
Post-reading motivation	Experimental	50	105.82	18.035	1.275	98	**.205**
	Control	50	101.18	18.346			

In Table 4.12 above, the means (M = 105.82 and M = 101.18) of experimental and control groups, respectively, depict that a slight difference was observed. The distance (SD = 18.035 and SD = 18.346) from each mean of the respective groups was nearly the same. However, the level of significance needed to be calculated to see if there was significant difference between the groups or not. As indicated in the last column of the table, the p-value, p = **.205**, (t = 1.275, df = 98, sig = **.205**) showed that statistically significant difference was not found between the groups concerning reading motivation of the groups. As Cohen's d (d = 0.255) showed, the effect of the relationship was modest (between 0.21-.50). Although the relationship between the two groups was not statistically significant, the result does not show which group showed better self-reported motivation of reading after the strategy training. This would be identified by using Paired Samples Test analysis below.

The next two tables, Table 4.13 and Table 4.14, present the relationship of the two variables of each group's self-reported reading motivation.

Table 4.13

Comparison of self-reported motivation means of experimental group

Descriptive statistics					Paired Samples Test	
Group	Motivation Score	N	M	SD	Pearson's r	Sig (2-tailed)
Experimental	Score 1	50	101.72	19.525	-.381	**.006**
	Score 2	50	105.02	18.035		

Table 4.13 above shows the pre-self-reported (Score 1) and the post-self-reported (Score 2) reading motivation of experimental group in Paired Samples Test. As the table shows, a difference (by 3.30) of mean scores of reading motivation of the group between score 1 and score 2 (M = 101.72 and M = 105.02), respectively, was observed. A slight difference between the distances (SD = 19.525 and SD = 18.035) from the means was also observed. However, as these figures could not tell us whether the relationship between the variables was significant or not, calculating and checking the significance level of the relationship was needed. The p-value, p = **.006**, (rho = -.381, sig = **.006**), which is less than .05, indicated that there was statically significant difference between the two variables of reading motivation of the experimental group before and after the intervention. The strength of the effect of the relationship was modest and had negative direction (r = -.381). If students were not taught cognitive reading strategy explicitly, their scores of reading motivation would be low and vice versa. This indicated that teaching cognitive reading strategy explicitly had great contribution to students' improvement of reading motivation.

The next table, Table 4.14, presents the mentioned two variables in the same way, in this case, for the control group.

Table 4.14

Comparison of control groups' self-reported mean scores of motivation

Descriptive statistics					Paired Samples Test	
Group	Motivation Score	N	M	SD	Pearson's r	Sig (2-tailed)
Control	Score 1	50	107.88	14.262	.075	**.606**
	Score 2	50	101.18	18.346		

Table 4.14 above shows the pre-self-reported and the post-self-reported scores ((Score 1 and Score 2), respectively, of reading motivation of the control group in Paired Samples Test. As the table shows, a difference (by 6.70) of mean scores of reading motivation of the group between Score 1 and Score 2 (M = 107.88 and M = 101.18), respectively, was observed. A difference of the distance (SD = 14.262 and SD = 18.346) from the means was also observed. As this difference could not tell us whether or not the relationship of the variables was significant, calculating and checking the significance level of the relationship was needed. The p-value, p = **.606**, (rho = .075, sig = **.606**), which is above .05, indicated that there was no statically significant difference between the two variables of reading motivation of the group before and after the intervention. The strength of the effect of the relationship was also weak (r = .075) and had positive direction (if the students were taught cognitive reading strategy explicitly, their scores of reading motivation would be high and vice versa). This indicated that not teaching cognitive reading strategy explicitly did not contribute to improve students' reading motivation.

Unlike the control group, a significant difference (with modest effect size) was found between the pre-self-reported and the post-self-reported scores of reading motivation of the experimental group after the group was taught cognitive reading strategies explicitly. Therefore, the third null hypothesis formulated, that is, there is no significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their reading motivation was rejected in the case of the experimental group; whereas, the alternative hypothesis, that is, there is a significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their reading motivation was confirmed for the control group. This means that unlike the conventional (implicit) mode, explicit cognitive strategy training significantly contributed to students' reading motivation.

In the following section, 4.2.4 (in tables 4.15 and 4.16), the extent of indirect effect (possibly resulted from teaching cognitive reading strategy explicitly/implicitly) of metacognitive reading strategy awareness and reading motivation on students' reading performance would be presented.

4.1.5 Indirect contributions of the predictors to reading performance

The fourth and the last research hypothesis was:

H0: When students are trained cognitive reading strategy explicitly/implicitly metacognitive reading strategy awareness and reading motivation are not predictors of reading performance, and both of them are weak in predicting.

H1: When students are trained cognitive reading strategy explicitly/implicitly metacognitive reading strategy awareness and reading motivation are not predictors of reading performance, and both of them are weak in predicting.

This last objective of the study was checked using multiple linear regression analysis as shown in tables 4.15 to 4.18 and explained below.

Table 4.15

Predictor variables of reading comprehension of the experimental group

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.167[a]	.028	-.013	7.4204

a. Predictors: (Constant): Post-Reading Strategy, Post-Reading Motivation

In the model of Table 4.15 above, R Square (R^2 = .028) explained 2.8% of variance of the predictors in reading comprehension. To be specific, 2.8% variation in reading comprehension was due to the predictors. In other words, if 100% of success in reading comprehension were taken, only 2.8% would be contributed by the predictors, both metacognitive reading strategy awareness and reading motivation. In the fourth column of the table, the Adjusted R^2 of the model (R^2 = -.013), which is always less than the value of R2, showed that it was a poor fit.

Using Beta coefficients of metacognitive reading strategy awareness and reading motivation as independent variables, the next table compared which of the two variables were stronger in predicting reading performance of the experimental group.

Table 4.16

Comparison of the Beta coefficients of both independent variables of experimental group

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	sig
1	(Constant)	9.915	7.722		1.284	.205
	Reading Strategy	-.002	.057	-.006	-.042	.968
	Reading Motivation	.069	.060	.168	1.144	.258

a. **Dependent Variable**: Reading Performance (Post-test Score)

Table 4.16 above provides useful information about each of the predictor variable and the effect variable of the experimental group. As the p-value obtained (p = .205) was greater than .05, there was no statistically significant relationship between each of the predictors and the reading performance. The standardized coefficients showed that metacognitive reading strategy awareness (Beta = -.006) with a weak effect, is weaker than that of reading motivation (Beta = .168) also with a weak effect. The output of B for metacognitive reading strategy (B = -.002) and for reading motivation (B = .069) showed that if reading performance went up by 1 in score, it would go up and got stronger by .006 and .069 ,respectively, and vice versa.

Tables 4.17 and 4.18 below compare if the mentioned variables of the control group were predictors of reading performance. The model summary of multiple linear regression in Table 4.17 below shows the overall fit statistics of post-self-reported metacognitive reading strategy awareness and reading motivation of the group.

Table 4.17

Predictor variables of reading comprehension of control group

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.206[a]	.043	.002	7.3856

b. Predictors: (Constant): Post-Reading Strategy, Post-Reading Motivation

In the model of Table 4.17 above, R Square (R^2 = .043) explained 4.3% of variance of the predictors in reading comprehension. To be specific, 4.3% variation in reading comprehension was due to the predictors. In other words, if 100% of success in reading comprehension were taken, only 4.3% would be contributed by the predictors, both metacognitive reading strategy awareness and reading motivation. In the fourth column of the table, the Adjusted R^2 of the model (R^2 = .002) showed that it was a poor fit.

Using Beta coefficients of metacognitive reading strategy awareness and reading motivation as independent variables, the next table compared which of the two variables were stronger in predicting reading performance.

Table 4.18

Comparison of the Beta coefficients of both independent variables of the control group

Coefficients [a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	sig
1	(Constant)	4.487	7.156		1.284	.534
	Reading Strategy	.054	.051	.152	-.042	.296
	Reading Motivation	.050	.058	.123	1.144	.396

b. **Dependent Variable**: Reading Performance (Post-test Score)

Table 4.18 above provides useful information about each of the predictor variable and the effect variable of the control group. As the p-value obtained (p = .534) was greater than .05, there was no statistically significant relationship between each of the predictors and the reading performance. The standardized coefficients showed that metacognitive reading strategy awareness (Beta = .152) with a weak effect, is a bit stronger than that of reading motivation (Beta = .123) also with a weak effect. The output of B for metacognitive reading strategy (B = .054) and for reading motivation (B = .050) showed that if reading performance went up by 1 in score, it would go up and got stronger by .054 and .050 respectively and vice versa.

The null hypothesis, that is, "When students are trained cognitive reading strategy explicitly/implicitly metacognitive reading strategy awareness and reading motivation are not predictors of reading performance, and both of them are weak in predicting" was rejected as both variable predicted students' reading performance. Thus, the alternative hypothesis, that is, when students are trained cognitive reading strategy explicitly/implicitly metacognitive reading strategy awareness and reading motivation are predictors of their

reading performance, and both of them are weak in predicting was accepted. Both students' awareness of metacognitive reading strategy and their reading motivation predict students reading performance insignificantly when they are taught cognitive reading strategy explicitly/implicitly.

4.2 Discussions

In the result section of this chapter, Chapter Four, the results of the main study have been analysed and presented. All the quantitative data obtained through the research tools have been presented under the results section based on the four specific objectives of the research and in the same order as put in Chapter One of the study. The results have been discussed under this section of the study.

This study investigated whether or not explicit mode of cognitive reading strategy training significantly contributed to reading performance, metacognitive reading strategy awareness and reading motivation. To address this broad objective of the study, four specific objectives were set and the findings have been discussed accordingly.

4.2.1 The contribution of strategy training to reading performance

The first objective of the study attempted to address whether or not the difference between reading performance of the experimental and the control groups which were taught explicit and implicit (conventional) modes of cognitive reading strategies, respectively, was significant. The pre-test results of the groups were statistically controlled before the cognitive reading strategy training was commenced.

When the groups were compared before they received the strategy training, an insignificant difference was found (p= **.489**) and the relationship of the groups was weak (Cohen's d =

0.06). This indicated that both the experimental and the control groups were homogeneous in reading ability before the experiment was carried out.

After ensuring the proficiency level of the groups, prior to the intervention, the experimental group received cognitive reading strategy training explicitly (with extra treatment), whereas, the control group received the same reading strategy with a different mode of training implicitly (as conventional as that of the strategy training for all students of Grade 9 as in the students' textbook). After the groups received the strategy training accordingly, the means of the post-test between the groups also showed a statically insignificant difference (p = **.080**) and the relationship between the groups was moderate (Cohen's d = .326). However, the post-test results showed some clues that it seemed there was a kind of change of reading performance because of the modes of the strategy training. This possible change was ensured by carrying out statistical analysis as discussed below.

Before comparing the means of each group to see the possible changes of reading performance resulted from the cognitive reading strategy training done, the overall scores of the two groups, both before and after the strategy training, were compared using Paired Samples Test. This helped to check the overall changes of the scores of the groups. Accordingly, the overall mean scores of the pre-test and the post-test of the groups were compared using the t-test mentioned. This indicated that a statistically strong significant relationship (p = **000**), which is less than .001, was obtained between the overall pre-test and post-test scores of the groups; the relationship was also strong and positive (r = .591). This indicated that probably both or one of the groups showed a statistically significant change because of the strategy training carried out.

At this point, the mean scores of each group before and after the intervention were calculated again using Paired Samples Test and compared to see whether there were changes between the two scores of each group or not. Accordingly, the findings of both groups showed a statistically strong significant difference between the scores before and after the strategy training unexpectedly. Looking at why this result was unexpected is most important and catching attention to brief.

Each of the experimental and the control groups showed a statistically strong difference of reading performance between the mean scores of the pre-test and the post-test. When the pre-test post-test means of the experimental group (M = 15.04 and M = 16.96) was compared with the pre-test post-test means of the control group (M = 15.97and M = 14.49), the pre-test mean score of the experimental group was smaller (by 0.93) than the pre-test mean score of the control group; in this case, the control group better performed in the pre-test than the experimental group did. On the other hand, the post-test mean score of the experimental group was greater (by 2.47) than that of the control group; in this case, the experimental group better performed than the control group did. When each group's pre-test and post-test means were compared, the post-test mean of the experimental group increased from the mean of the pre-test (by 1.92), whereas, the post-test mean of the control group decreased from the mean of the pre-test (by 1.48). These changes of means imply that the mean of the control group decreased because the post-test was perhaps more difficult than the pre-test and because the group received implicit cognitive reading strategy training; whereas, even if the post-test was more difficult than the pre-test, the mean of the experimental group increased because the group received cognitive reading strategy training explicitly. In this sense, in both cases of scores of the groups, a significant relationship between each group's pre-test and post-test mean scores was expected and reasonable.

The probability value (p = .000) calculated showed the significance level of this relationship; the p-value of both groups was less than .001. Hence, each group showed a strong significant difference between the pre-test and the post-test scores of reading performance because of cognitive reading strategy training. To put this unambiguously, the reading performance of the experimental group significantly increased after the strategy training because the group was taught reading cognitive reading strategies explicitly; whereas, the reading performance of the control group significantly decreased after the strategy training because the group was not taught cognitive reading strategies explicitly or, in other words, the reading performance of the control group decreased because the group was taught the conventional cognitive reading strategies as in the same way as in the students' textbook implicitly (indirectly).

This finding discussed above answered the first question of the study. Therefore, the null hypothesis (H0) formulated for the first objective of the study was rejected; the alternative hypothesis formulated (H1), "There is a significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their reading performance," was accepted.

It is worth mentioning at this point that the result of the pilot study goes in harmony with this main study in the case of the experimental group unlike to the control group. During the pilot study, the mean scores of the pre-test and the post-test of both the experimental and the control groups (each group consisted of 35 participants) were compared using Paired Samples test to see the possibly improved change of each group. During the pilot study, the cognitive reading strategy training was carried out for 10 hours within eight weeks. Unlike to that of the control group, a significant difference was found (p = .000) between the scores of the pre-test and the post-test of the experimental group; the relationship of the variables was also strong and positive (if the pre-test score of the

experimental group increased, the post-test score would also increase and vice versa). This results of the pilot study showed that teaching cognitive reading strategies can improve students' reading performance when they are taught the strategies explicitly.

To be back to the main study, it is possible to state that the results of the groups presented above align with some findings of the studies indicated in the literature. The findings go in harmony as some researchers such as Saks, Leijen and Täht (n.d) concluded in their earlier studies that cognitive reading strategies have direct effect on reading comprehension. The alignment of the findings is seen in two ways. One of these is that the findings of the present study are discussed in relation to the findings of earlier studies in favour of and against the present study. In other words, the findings of the earlier studies that go and that do not go with the present study are discussed. Another one is that the reasons of the observed similarities and differences between both the present and the earlier studies are discussed hereunder.

Contrary to the findings of the first research question of the present study, although experimental studies carried out at secondary school levels on cognitive reading strategies have not been found as such, some related experimental studies in other grade levels showed contradictory findings in relation to the finding of the current study. In this regard, a quasi-experimental study of treatment and control groups carried out in an elementary EFL context by applying a multiple-strategy instruction by Manoli (2013) revealed that the interaction between students' reading proficiency and reading performance after strategy instruction was not found to be statistically significant. Similarly, Dole, Nokes and Drits (2009) indicated that there was little difference in scores between good readers in treatment and control conditions in various studies. Likewise, the findings of Yaman and Çakici's (2013) study of the effect of cognitive and compensation strategy instruction on reading comprehension skill at a university ELT programme showed that no statistically significant

difference was found between the pre-and post-test scores of the students in experimental and control groups. In Yaman and Çakici's (2013) study, during the treatment process of 12 lesson hours within eight weeks, the experimental group was trained to use three cognitive strategies, namely, 'getting the idea quickly', 'taking notes' and 'highlighting' for reading comprehension skill. Although the last two of the three strategies were included in that study (but for different age and grade levels), these strategies taught could not bring a significant change of students' reading performance. In fact, these earlier findings go not only against the findings of the present study but also against the claim that cognitive reading strategies are considered to be potential to be extremely powerful learning tools (O'Malley, Chamot, Stewner-Manzanares, Kupper, & Russo, 1985 in Griffiths, 2004) in every context to get students' reading performance improved.

In the current study, the experimental group showed desirable improvement of reading performance after the group had been taught cognitive reading strategies explicitly. Although some of the earlier findings of explicit cognitive reading strategy training seemed controversial (Dole, Nokes & Drits, 2009; Suyitno, 2017), the findings of the present study goes with the argument that cognitive reading strategies are considered to be potential to be extremely powerful learning tools (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 Li et al (2022); these researchers found out that students who received explicit reading strategy instruction made a significant improvement in their reading comprehension. In relation to the present study, in their study of two quasi-experimental study groups carried out at Grade 9 of Jimma Preparatory School, Rahel, Tekle and Alemayehu (2018) found out a significant difference between experimental and control groups; however, it is difficult to confirm this significant difference between the pre-test and the post-test scores of the experimental group because both groups were significantly different before the strategy training was commenced. Thus, we cannot say that the strategy training claimed by Rahel, Tekle and Alemayehu (2018) improved

students' reading ability as these researchers compared two groups of different reading ability before the strategy training was commenced.

In addition to showing the similarities and the differences of the findings between the present study and the earlier studies discussed above, it is vital to discuss why the students' reading performance of the experimental group of the present study desirably improved. Unlike to the present study, many earlier studies did not focus on cognitive reading strategies perhaps because the influence of cognitive reading strategies on reading comprehension has not been differentiated clearly (Dole, Nokes & Drits, 2009). In their review of cognitive and metacognitive reading strategies, these researchers, for instance, argue that they 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 treated cognitive and metacognitive studies together as cognitive strategy instructional studies. Moreover, a recent review of 27 cognitive and metacognitive reading strategy studies reviewed by Ali & Razali (2019) indicated that these strategies are overlapping. This resulted in merging both cognitive and metacognitive aspects of reading strategies even in recent studies, for example, as in the study of Rahel, Tekle and Alemayehu (2018). Rahel, Tekle and Alemayehu carried out a quasi-experimental study by merging cognitive and metacognitive reading strategies at Jimma Preparatory School, Grade 11. They did not focus on the cognitive aspect of reading strategy though they claimed to cover 15 reading strategies within about seven hours of teaching.

Besides, even those studies which focused on cognitive aspects of reading strategies did not include multiple cognitive reading strategies in their studies. For example, Yaman and Çakici (2013) included only two cognitive reading strategies in their study, and the treatment was carried out only for 10 lesson hours within eight weeks. Another reason,

thus, could be that researchers might have used fewer hours during the intervention of their reading strategy instruction.

Unlike to the studies mentioned above, the present study covered six cognitive reading strategies identified by (Oxford, 1990) for 14 hours within 12 weeks. This could help the experimental group to better practise cognitive reading strategies and develop the awareness of their reading strategies. Regarding this, Oxford (2003) argued that developing the awareness of reading strategies can be achieved through preparing for and conducting cognitive reading strategy instruction. That is why other scholars in the field also strongly argued that teachers need to keep updating their teaching methods of cognitive reading strategies to meet students' needs of the target language in the use of right cognitive reading strategies in the contexts the students are learning (Raftari, Seyyedi, & Ismail, 2012). Thus, it is possible to put that if students, particularly of Grade 9, of secondary schools are taught cognitive reading strategies explicitly, they can improve their reading performance considerably; it has been found out that when the teaching and practising of explicit cognitive reading strategies increases, students' reading performance also increases and vice versa.

However, unlike the experimental group, the control group did not improve reading performance after the participants of the group received cognitive reading strategies implicitly. The group did not even keep the reading performance score that was obtained from the pre-test before the strategy training. As explained earlier, the group could not obtain similar scores probably because the post-test was a bit more difficult than that of the pre-test (See 3.3.1); for the post-test seemed fairly difficult for both the experimental and the control groups both during the pilot and the main studies.

Besides, although both tests were parallel and consciously prepared in order to fit to test the reading ability of the students of Grade 9 in Ethiopian English language context, the means of the groups were below average in each case. The reason for scoring lower means is that secondary school students are probably unable to understand written texts (KNEC Report 2011; Lei, 2010; Masinde, 2005 cited in Kulo & Omulando, 2014). According to Diller (2007) and Hodgson (2008), cited in Kulo and Omulando (2014), many students do not comprehend what they are reading and a large number of pupils join secondary schools with extremely weak reading ability. As Agak (1995), quoted by Kulo and Omulando (2014), indicated, there is a great concern among educators that students' reading is declining at an alarming rate. Scholars such as Dymock (2005) agree that students' reading ability becomes weak when they complete secondary schools without acquiring required reading comprehension practices. This has been argued that it is worse in the context of Ethiopian secondary schools.

Similarly, the reading performance score of the experimental group also would have significantly decreased if the group had not received cognitive reading strategy training explicitly because both tests were equally difficult for both the experimental and the control group both during the pilot and the main studies. For instance, the experimental group scored the means (M = 16.46 and M = 15.80) in the pre-test and the post-test, respectively, during the pilot study, and the means (M = 15.04 and M = 16.66) in the pre-test and the post-test, respectively, during the main study. This indicates that the post-test was a bit more difficult than the pre-test not only for the control group but also for the experimental group. Thus, unlike to the experimental group, the reading performance of the control group decreased significantly after the intervention because of the mode of the strategy training and this will be discussed hereunder.

As described above, the finding of the present study showed that the control group got its reading performance decreased after the group was taught cognitive reading strategies implicitly. Despite of this, several scholars, as Oxford (1990) indicated, strongly argued 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). Confirming this argument, Dole, Duffy and Pearson (1991) forwarded suggestions for the future research. Based on their review of literature, Dole, Duffy and Pearson (1991) certainly suggested that both younger and older students can learn reading comprehension processes in indirect ways and indirect instruction plays great roles in helping students become better in understanding written English texts. The argument of these scholars is in contrary to the current study which disproved the point of their argument. Besides, in contrary to the current study, Carver (1987) in Dole, Duffy and (1991) suggested that cognitive reading strategies should (perhaps can only) be learned indirectly. Such scholars would learn not to be rigid about the mode of the cognitive reading strategy training they are advocating because the issue of explicit/implicit mode of strategy instruction has been controversial so far. On the other hand, the present research has provided strong evidences that explicit, not implicit, mode of training of cognitive reading strategies needs to be focused on.

In connection to the roles of cognitive reading strategy training, Dole, Nokes & Drits (2009) reviewed various studies of reading strategies and concluded that it was unclear what part of cognitive strategy instruction played in the total reading comprehension curriculum and how that played out at different age and grade levels. Hence, to clarify this ambiguity, the current study tried to show how cognitive reading strategy training plays important roles of improving students' reading comprehension in an Ethiopian secondary school context.

4.2.2 The contribution of strategy training to strategy awareness

The second objective was to answer whether cognitive reading strategy training contributed to the awareness of metacognitive reading strategy of students when their pre-self-reported scores were statistically controlled or not. This contribution of strategy training to the awareness of metacognitive reading strategy has been discussed as below.

To address this objective, firstly, both the pre-self-reported and the post-self-reported scores of metacognitive reading strategy awareness of the experimental and the control groups were compared. The pre-self-reported scores of metacognitive reading strategy awareness of both the experimental and the control groups showed that no statistically significant difference (p = **.444**) was found between the two conditions; the relationship was also weak (Cohen's d = 0.03). This indicated that both groups were similar in the awareness of metacognitive reading strategy before the groups received different modes of strategy training. However, after the groups received strategy training, statistically significant difference (p = **.025**) was found between the two groups as the p-value was less than **.05**; and the relationship between the groups was modest (Cohen's d = .454).

To see whether or not a significant difference was found between the total pre-self-reported and post-self-reported scores of the awareness of metacognitive reading strategy, both variables (scores) were compared using Paired Samples Test. Thus, statistically significant difference (p = .097) was not found between the two variables (scores) as the p-value was greater than .05; the relationship was also weak and negative (r = -.013) (if the pre-self-reported score increased of the groups, the post-self-reported score of the groups would decrease and vice versa). This may not, however, mean that both or one of the groups showed the awareness of metacognitive reading strategy.

To see whether or not each of the experimental and the control groups showed a change of the awareness, the pre-self-reported and the post-self-reported scores of the groups were compared using Paired Samples Test. Accordingly, as the probability values of the experimental group (p = **.459**) and the control group (p =**.370**) were greater than .05, no statistically significant difference was shown between the two variables (between the pre-self-reported and the post-self-reported scores) for both groups; the strength of the relationships for both experimental (r = -.107) and the control (r = .129) groups was also weak. The relationship of the variables of the experimental group was positive (if one variable increased, the other would also increase and vice versa); whereas, the relationship of the variables of the control group was negative (if one variable increased, the other would decrease and vice versa). This means that the findings showed that both explicit and implicit modes of cognitive reading strategy training could not have a significant impact on students' awareness of metacognitive reading strategies. Therefore, the null hypothesis (H0) formulated for the second objective of the study, that is, "there is no significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their metacognitive reading strategy awareness," was confirmed.

The results discussed above about the awareness of metacognitive reading strategy of both the experimental and the control groups did not go with some findings of studies, such as of Kuhn (2000) cited in Moore (2015), indicated in the literature. Kuhn (2000) cited in Moore (2015) indicated that reading strategies and metacognition work in relation in increasing learners' reading comprehension. In relation to this, Oxford (2003) argued that developing the awareness of reading strategies can be achieved through conducting cognitive reading strategy training. Moreover, researchers such as Saks, Leijen and Täht (n.d) indicated in their earlier studies that metacognitive reading strategies have indirect effects on reading comprehension. However, this argument does not go in harmony with the finding of the

present study. Similar to the current study, the findings of several studies such as of Mahrdad, Alghar, and Alghar (2012) of Iranian EFL students, and of Pie (2014) of Chinese EFL students, of Meniado (2016) of Saudi EFL students confirmed that metacognitive reading strategy contribute insignificantly to students' reading performance. These two contradicting issues indicate that the impact of cognitive reading strategy instruction on EFL students' reading performance is arguable, and, thus, further investigations are needed.

. 4.2.3 The contribution of strategy training to reading motivation

The third research objective was set to address whether explicit and implicit (conventional) cognitive reading strategy training contributed to reading motivation of students when their pre-self-reported scores were statistically controlled or not. This contribution of strategy training to reading motivation has been discussed as below.

To address this research objective, both the pre-self-reported and the post-self-reported scores of reading motivation of the experimental and the control groups were compared. The pre-self-reported scores of reading motivation of the experimental and the control groups showed that no statistically significant difference ($p = .\mathbf{075}$) was found between the two conditions as the probability value was greater than .05; the relationship was also weak (Cohen's $d = 0.06$). This indicated that both groups were similar in reading motivation before they received two different modes of strategy training. Likewise, after the groups received strategy training, statistically significant difference ($p = .\mathbf{205}$) was not found between the two groups as the p-value was again greater than **.**05; and the relationship between the groups was modest (Cohen's $d = .255$). However, this finding of the comparison of the post-self-reported scores between the groups would not show whether or not any of the groups showed any change after the intervention.

To see whether or not a significant difference was found between the total pre-self-reported and post-self-reported scores of reading motivation, both variables (scores) were compared using Paired Samples Test. Thus, statistically significant difference (p = .043) was found between the two variables (scores) as the p-value was less than .05; but the relationship was weak and negative (r = -.013) (if the pre-self-reported score increased, the post-self-reported score would decrease and vice versa). This may not, however, mean that both of the groups would show changes of reading motivation.

To see whether or not each of the groups showed a change of reading motivation because of the strategy training, the pre-self-reported and the post-self-reported scores of the groups were compared using Paired Samples Test. Accordingly, statistically significant difference was found between the two variables (pre-self-reported and post-self-reported scores) of reading motivation of the experimental group (p = **.006**); the relationship between the variables was modest and negative (r =-.381) (if one variable increased, the other would decrease and vice versa). However, as the p-value (p = **.606**) showed, no statistically significant difference was found between the pre-self-reported and the post-self-reported scores of reading motivation of the control group; the relationship of the variables was weak and positive (r = .075) (if one variable increased, the other would also increase and vice versa).

The results discussed above about the reading motivation of the experimental and the control groups showed that each mode of the cognitive reading strategy training had its own effect on students' reading motivation. Unlike the control group, the experimental group showed improvement of reading motivation after the intervention. The experimental group showed significant improvement of reading motivation because this group received cognitive strategy training explicitly. On the contrary, the control group could not show improvement of reading motivation as the group was taught cognitive reading strategies

implicitly. Therefore, the null hypothesis (H0) formulated for the third objective of the study, that is, "There is no significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their reading motivation" was confirmed for the control group; whereas, the alternative hypothesis (H1) of this version, that is, "There is a significant difference between students who are taught reading through explicit cognitive reading strategy training and who are taught by conventional method in improving their reading motivation," was accepted for the experimental group.

These findings of reading motivation of the experimental and the control groups align with some findings of studies indicated in the literature. This finding of motivation goes with an Oxford's statement that strategy instruction has led to increased EFL learning motivation (Nunan, 1997 cited by Oxford, 2003) and, as Davis et al. (2017, p.1) emphasized, reading motivation is a critical contributor to reading achievement. This does not, however, mean that both explicit and implicit modes of strategy training increase students' motivation of reading; as the current study showed, implicit cognitive reading strategy instruction could not increase students' motivation of reading, and this goes against the suggestion of Nunan mentioned above. It also goes against the results of the study of Chinese EFL university students by Li et al (2022). Li et al found out 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.

Some researchers argue this in a different way as that reading motivation is increased if students understand that the strategies they are learning are useful and necessary (Dole, Nokes & Drits, 2009). As these scholars suggested, students' motivation of reading is not increased not only because they are (are not) taught explicitly or implicitly but because they do not believe that cognitive reading strategies are useful and necessary. This means

that students need to be explicitly told how cognitive reading strategies are useful and necessary to boost their motivation of reading. Thus, reading motivation of the control group of the current study did not increase most probably because the students did not both receive explicit strategy training and believe that the strategies to be used in the students' textbook are not useful and necessary. This may imply that students need to be plainly told the importance of reading strategies in order to understand that using effective reading strategies and reading motivation are interrelated to enhance students' reading performance. In fact, cognitive reading "strategies are wilful in that readers must have the motivation to actually use the strategy; knowing how to use it is not enough" (Dole et al. 2009:10)

4.2.4 Indirect contributions of the predictors to reading performance

The fourth and the last objective of the study was to examine whether or not metacognitive reading strategy awareness and reading motivation were predictors of reading comprehension when students were trained cognitive reading strategy explicitly/implicitly and when the scores of the sample groups were statistically controlled before they received strategy training. To address this objective, the post-self-reported scores of the variables (post-self-reported scores of metacognitive reading strategy awareness and reading motivation) were calculated using multiple linear regression. The overall fit statistics (R^2 = .040) of the variables explained 4% of variance in reading comprehension. To be specific, only 4% variation in reading comprehension was due to the predictor variables. In other words, if 100% of success in reading comprehension were taken, only 4% of reading performance would be contributed by both metacognitive reading strategy awareness and reading motivation. The Adjusted R^2 = .021 of the model showed that it was a poor fit because of a small sample size. Researchers suggest that this value (the value of the goodness of fit) should be equal to or greater than 0.19. However, when the residual plot was created, the regression line well fit the data. A residual plot is a type of plot that

displays the predicted values against the residual values for a regression model, and the model is a good fit when the actual data fall close to the regression line.

As the p-value (p = **.282**) of both the predicting variables showed, statistically significant relationship was not found between each of the predictors and reading comprehension. The standardized coefficients approved that metacognitive reading strategy awareness (Beta = .106) with a weak effect, was weaker than that of the reading motivation (Beta = .152) with a modest effect. The output of B for metacognitive reading strategy (B = .039) and for reading motivation (B = .062) showed that if reading comprehension went up by 1 in score, it would go up and got stronger by .039 and .062 respectively and vice versa. Therefore, the null hypothesis formulated was rejected as there was a weak relationship between each of the predictor variables and reading performance. Instead, the alternative hypothesis (H1), "When students are trained cognitive reading strategy explicitly/implicitly metacognitive reading strategy awareness and reading motivation are not predictors of their reading performance, and both of them are weak in predicting," was accepted.

The findings concerning metacognitive reading strategy awareness and reading motivation as predictors of the outcome variable, reading comprehension, of the present study go differently in line with previous research findings. For example, some researchers such as Pammu, Amir and Maasum (2014) cited in Wikandari (2020) found that Indonesian EFL students' use of metacognitive reading strategy (as predictor) did not contribute to their reading performance. Similarily, Estacio (2013), cited by Wikandari (2020), studied (in Philippine context using Metacognitive Awareness Reading Strategy Inventory, MARSI) whether or not metacognitive reading strategy awareness was a predictor of reading comprehension. This researcher concluded that metacognitive reading strategy awareness was not a predictor of reading comprehension. Likewise, Wikandari (2020) studied the relationships between metacognitive reading strategies and reading comprehension as well

as reading motivation and reading comprehension of Saudi college-level EFL learners in the context where there was no strong reading culture. Wikandari found that metacognitive reading strategy awareness did not contribute to reading comprehension. Concerning reading motivation as a predictor of reading comprehension, Wikandari (2020) found, similar to that of the metacognitive strategy, that reading motivation did not contribute to reading comprehension. In this sense, it is possible to say that both metacognitive reading strategies and reading motivation are not (if not at all) predictors of reading performance. On the other hand, the finding of the current study goes against some other findings concerning the influence of motivation on reading performance (Ahmadi & Takaloo, 2017). These researchers indicated that motivation has an influential impact on students' reading performance unlike the current study. Likewise, in their study, Fengning et al. (2000) cited in Liu, Chen and Liu (2022) found that there was a highly significant positive correlation between the secondary school students' reading motivation and reading performance. These controversies of findings of metacognitive reading strategy awareness and reading motivation about their contributions to reading comprehension need further investigations, particularly at secondary schools in different school contexts.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

This study investigated effects of cognitive reading strategy training on reading performance, metacognitive reading strategy awareness and reading motivation of Grade 9 students in Hosanna Town, 232 kilometres south west of Addis Ababa. Two, explicit and implicit, modes of strategy training were conducted for experimental and control groups, respectively for twelve weeks or for fourteen hours of intervention. The study was carried out to see possible differences between students who were taught cognitive reading strategy explicitly and students who were taught cognitive reading strategy implicitly (conventionally)

For the study, a quasi-experimental research design, that is, a pre-test-experiment-post-test design was used in a quantitative approach. This design was used to test students' reading performance of explicit and implicit modes of cognitive reading strategy training between two randomly selected intact groups. This helped to look at whether or not the outcomes differed between the experimental and the control groups.

The participants of the study were Grade 9 students of Heto Secondary School in Hosanna Town. Two intact groups were randomly selected from the sample school. A total of 100 students, 50 students from each group, participated in the study.

A pre-test and a post-test and two sets of questionnaire were administered to collect quantitative data. Both the pre-test and the post-test consisted of 25 items and were scored out of 43 and 43.5 total points, respectively. These tests were administered before and after

the sample groups received cognitive reading strategy training. Metacognitive reading strategy awareness and reading motivation questionnaires consisted of 30 and 31 items, respectively. Each questionnaire was administered both before and after the strategy training in order to collect pre-self-.and post-self-reported data to analyse possibly improved changes of the self-reported scores.

To train each sample group, a different mode of strategy training was applied during the intervention. The experimental group was explicitly taught six cognitive reading strategies such as repeating, reasoning deductively, analysing expressions, taking notes, summarizing and highlighting. On the other hand, the control group was taught the same reading strategies implicitly (as conventional); this group was taught the same strategies as those students of Grade 9 were taught. Each group was taught the strategies by the same trained English teacher for 14 hours within 12 weeks, from 24 October 2022 to 13 January 2023. Both groups were taught 10 reading passages in three units and all the exercises of the units in students' textbook of Grade 9 with the different modes mentioned.

Before analysing the data collected, normality tests were computed to determine whether or not the distribution of data sets was well modelled. In this regard, the sample size of the study, linearity of the data and outliers were checked. In addition, it was shown and ensured from the statistics that a lower bound of the true significance was met for all the data collected.

Suitable statistical tools of SPSS, version 25, were employed to analyse the data of the study. A non-directional (two-tailed) parametric test was applied for data analysis. T-Test was the main method of data analysis of this study. Data were computed using T-test to check significant difference between the two groups or variables of the study. Independent

Samples Test was used to compare means of the groups, particularly, the experimental and the control groups. Paired Samples Test was used to compare the pre-test and the post-test scores of each group to see possible changes. To see how far each score of participants from means, Standard Deviations were calculated where necessary. In relation to Independent Samples Test of continuous variables, Cohen's d and, of ordinal variables with many scales, Pearson's r, was employed to check the strength and the directions of the relationships of groups or variables. As a second major method of data analysis, multiple linear regression was used. This method was employed to examine whether metacognitive reading strategy awareness and reading motivation were predictors of reading performance or not.

The participants of the sample groups were similar in their ages and gender. In addition to this, it was ensured that both the experimental and the control groups were similar in reading ability, strategy awareness and reading motivation before the strategy training was commenced. When the mean scores of the groups were compared before the groups received strategy training, it was found that the difference between the two groups was not statistically significant (p= **.489**) and their relationship was weak (d = 0.06). This means that both groups were homogeneous in reading ability before the intervention was carried out. Also when the pre- and the post-self-reported scores of metacognitive reading strategy awareness of the groups were compared, statistically significant difference (p = .**444**) was not found between the two conditions, and the relationship was weak (d = 0.03). In addition, when the pre- and the post-self-reported reading motivation was compared before the training was conducted, statistically significant difference (p = .**075**) was not found between the two conditions, and the relationship was also weak (d = 0.06). This indicated that both groups were similar in reading motivation before they received two different modes of strategy training.

The study was conducted to address four objectives set. Based on these objectives, the major findings of the study were the following:

- Unlike the implicit mode of strategy training, explicit approach of cognitive reading strategy instruction significantly improved reading performance of students, and the effect of this mode of strategy training on reading performance was strong.

- Similar to the implicit mode of strategy training, explicit cognitive reading strategy training could not bring a significant change on students' awareness of metacognitive reading strategy, and its effect was weak and negative.

- Unlike the implicit mode of strategy training, explicit cognitive reading strategy training could bring a significant change on students' motivation of reading, and its effect was modest.

- When students were trained cognitive reading strategies explicitly, the awareness of metacognitive reading strategy and the motivation of reading were predictors of reading performance though both of them were weak in predicting.

The major findings stated above were obtained in line with the objective set for the study. Based on these results, conclusions were made as stated below.

5.2 Conclusions

Conclusions were drawn from the findings of the study. Although teaching students of all level of grade and age is expected to help them comprehend English texts, teaching everything of reading skills for reading comprehension may not be possible. However, teaching reading strategies that boost comprehending ability of students is inevitable. In this regard, the findings of the current study revealed that Grade 9 students who were

taught reading through explicit cognitive reading strategies training showed considerable improvement of their reading performance; whereas, students who were taught reading through explicit cognitive reading strategy training showed the opposite. Experimental group showed both significant improvement in reading scores (explicit cognitive strategy training) and reading motivation. On the other hand, control group showed a decrease in reading scores, indicating the need for explicit cognitive reading strategy training for effective improvement. Based on the findings of the study, the following conclusions have been drawn.

1. In enhancing students' reading performance, teaching cognitive reading strategy explicitly is a favoured approach than teaching it implicitly.

2. Both explicit and implicit modes of strategy training could not bring significant changes on students' awareness of metacognitive reading strategy, and the effect of the relationship was weak and negative.

3. Unlike the implicit mode of strategy training, explicit cognitive reading strategy training could bring a significant change on students' motivation of reading, and its effect was modest.

4. When students were trained cognitive reading strategies explicitly, the awareness of metacognitive reading strategy and the motivation of reading were predictors of reading performance though both of them were weak in predicting.

It was possible to forward educational and future research implications, as stated below, based on the conclusions drawn above.

5.3 Recommendations

Based on the conclusions of the study drawn, the findings of the present study have implications. To apply the findings of the study, the following educational and future research implications have been forwarded.

As the explicit mode of cognitive reading strategy instruction can significantly improve students' reading comprehension performance, secondary school students need to be taught reading strategies explicitly to the maximum. Secondary school students also need to be taught reading strategies as this mode of instruction can bring a desirable change on their motivation of reading.

The current students' textbook of Grade 9 "English for Ethiopia" needs revision such in a way that it can incorporate cognitive reading strategies to be taught explicitly. This will be true if course writers and/or curriculum designers are aware of the issue. In this regard, Ministry of Education of Ethiopia can play a great role in getting practitioners involved during preparation of the materials.

In addition to the educational implications forwarded above, the findings of the study have suggestions for the future research.

Firstly, further investigations on the effects of explicit cognitive reading strategy training on different variables, including the current ones, is needed perhaps in different contexts and grade levels.

Secondly, further investigation is needed on the effects of explicit/implicit cognitive reading strategy training on the awareness of metacognitive reading strategy and motivation of reading; it is also important to see whether or not awareness of metacognitive reading strategies and motivation of reading are predictors of reading performance.

Thirdly, the current study focused only on six cognitive reading strategies mentioned, and these strategies were not treated separately, so the effect of each strategy was not focused on. This may be separately studied in the future research.

Fourthly, a design of three groups such as experimental, control and comparison may be another important aspect to examine cognitive reading strategies; in this case, one of the groups can be taught cognitive reading strategies explicitly; another one can be taught cognitive reading strategies implicitly; and the third group can be taught reading texts without any cognitive reading strategy. This kind of teaching of reading texts can help to identify which mode of strategy teaching to better apply.

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APPENDICES

Appendix A: Tests

Appendix A1: Pre-test of pilot study

School: Yekatit 25/67 Secondary School, Date:

Student Name: _____ Grade 9, Section _____

St. Code: _____ Time given: 2hrs, Total Marks: 50 (Score: _____)

General Directions: This is a reading comprehension test. It is aimed at understanding the level of reading ability of Grade 9 students. For this purpose, two passages have been provided below and a total of 30 questions (16 from passage one and 14 from passage two) have been asked. The questions are presented in four parts. Therefore, you are expected to read both passages and the directions given under each part carefully and answer all the 30 questions accordingly.

Reading Passage One

1 "I'd like to tell you a story. It's a true story, which happened to me and my mother about ten years ago. We used to live in Cyprus, an island in The Mediterranean and we'd planned to go back to the UK for a holiday. We decided to fly because the army gave us really cheap flights.

2 I remember the day so well. We got up really in the morning and my father drove us to the airport. He said goodbye and we said we'd ring as soon as we got back to England. He stayed and watched out plane leave and drove back home.

3 After about half an hour, I heard a really strange noise coming from above my head. Suddenly, one of the air hostesses ran down the aisle looking very worried. The noise was getting worse and worse and people were starting to panic. At that moment, the pilot spoke over the **Tannoy**. He said that there was a slight technical problem with the plane and that would be returning to Cyprus. **He** had to **get rid of** all the fuel and fly extremely low and close to the sea, in case we had to crash land. We put on our life jackets and hoped for the best.

4 Fortunately, about half an hour later we landed safely, thanks to the pilot. When we got off the plane, I remember looking up and seeing a large hole in the plane, about the size of a door! The explained that we would have to wait until the next day to return to the UK.

5 So my mother and I decided to head back home. We decided not to trouble my father and so we took a taxi from the airport. I'll never forget the expression on my father's face as he opened the door and saw us standing there. He went very pale as if he was looking at two ghosts. "But I'm sure I saw you took off?" he asked. He just couldn't believe his eyes. Little did he know what had nearly happened."

Part I: <u>Giving (Writing) short answers</u>

For questions 1-5, write one or two words only on the space provided (2 points each).

1. Where is Cyprus found? It is found in _____.
2. According to the passage, how many persons decided to fly from the family? ____
3. What is the place where the persons lived before they came to Cyprus? _____
4. The pronoun 'He' (paragraph **3**, line **5**) refers to _____.
5. Which adjective has been mentioned two times in paragraph **3**? _____

Part Two: <u>Choosing from given alternatives</u>

For questions 6-16, choose the best answer from the alternatives (A, B, C, D) given (1.5 points each except number 6). <u>CIRCLE</u> the letter of your choice.

6. According to the passage, the passengers decided to fly because traveling by plane is regularly cheaper than traveling by cars (1 point). A) true B) false
7. Who is the writer of the story of passage one?
   A) daughter B) son C) child D) somebody
8. It can be inferred from the passage that the course of the problem
   A) was immediately controlled.
   B) was controlled within thirty minutes easily.
   C) might be controlled after they had landed safely.
   D) was controlled before they landed safely.
9. It was important to get rid of all the fuel in order to
   A) explode the plane, but save the lives.
   B) save the passangers, but dismiss the plane.
   C) burn all the passengers and the hostesses.
   D) save the plane and all the people in it from getting burnt and crushed.
10. It is inferred in the passage that the passengers put on **life jackets** to _____.
    A) fly in the air as a bird does only
    B) save their lives by getting out of the plane
    C) save the plane and the pilot
    D) make the plane empty
11. According to the passage, until when did they wait in Cyprus to return to the UK?

A) Until the next week B) until two weeks C) until two days D) Until one day

12. According to paragraph 3 (line 4), the meaning of the word '**Tannoy'** in the sentence "the pilot spoke over tannoy" is _____.
    A) whistle B) loud speaker C) flute D) trumpet
13. In the passage (paragraph **3**, line **5**), the meaning of the phrase '**get rid of'** is _____.
    A) avoid the unwanted fuel C) keep the fuel for future use
    B) increase the fuel needed D) transfer the extra fuel to another plane
14. One function of the fourth paragraph of the passage is _____.
    A) explaining about safely landed plane
    B) explaining about the careless work of the pilot
    C) explaining the careless action of the pilot
    D) explaining the fearfulness of the pilot
15. In which paragraph are the two opposing ideas, such as "taking off" and "going back" mentioned? They are mentioned in paragraph A) 1 B) 5 C) 3 D) 4
16. Which most accurately states the main idea of the passage?
    A) A Lovely Family B) A Narrow Escape C) A Careful Pilot D) An Airplane Crash

Reading Passage Two

1 Back on the travel map after many years of war and famine, Ethiopia has a fascinating cultural heritage.

2 The capital, Addis Ababa, is a dusty, sprawling African city, but has some great attractions, not least the National Museum, home to the 3.5 million-year-old remains of Lucy, one of the earliest hominid (pre-human) fossils. In addition to the many **frescoed** ceilings in ancient churches a must-see experience is a visit to the Markato, East Africa's largest open-air market.

3 Many sites of interest are clustered in the north of the country. The Simien Mountains attract trekkers and wildlife watchers, drawn by the stunning landscape and the chance of spotting ibex, baboon or the rare Ethiopian wolf. Aksum is the home to underground palaces, royal tombs and monolithic granite stelae. Another place of special interest is Gondor, capital of Ethiopia from the 17^{th} to the 19^{th} century; its well-preserved castles and palaces are fascinating and exceptionally picturesque. The rock churches of Lalibela and Tigray are world-famous. Lake Tana and its islands are blessed with some 200 monasteries, while the nearby Blue Nile Falls (Tis Isat) thunder 400m in spectacular (and noisy) fashion.

4 The **obligatory** tourist visa (43) can be obtained from the Ethiopian Embassy at 17 Princes Gate, London-www.ethioembassy.org.uk)

5 You should dress modestly with your shoulders and knees covered. Take a mixture of clothing because the flora and climate of Ethiopia is diverse, with desert to the south and highlands in the north.

6 It is well worth considering domestic flights from Addis Ababa with Ethiopian Airlines because most flights are reasonably prices and cut out days spent travelling by road. A good network of cheap but slow buses connects all the major towns in Ethiopia, but for smaller towns you will need a hire car which, although easy to get hold of, may prove expensive. For further reading try Ethiopia & Eritrea (Lonely Planet, 2003)

From Cathy Malcolm adapted from Wanderlust magazine Feb/March 2004 Issue 2

Part Three: Choosing from given alternatives

For items 1-18, choose the most suitable answer from the alternatives (A, B, C, D) given to complete the blank spaces provided (1.5 each). CIRCLE the letter of your choice.

1. Which is the East Africa's largest open-air market?
   A) Gullele B) Merkato C) Acra D) Gambo
2. According to the passage, the former capital of Ethiopia was _____.
   A) Bahir Dar B) Gondor C) Aksum D) Lalibela
3. According to the passage, how much money can be expected from a tourist travel in Ethiopia? A) £17 B) £43 C) $43 D) E17
4. According to paragraph **3**, where can the well-preserved castles be found?
   A) Jima B) Gondor C) Aksum D) Lalibela
5. Which one of the following is true according to paragraph **2** of passage two?
   A) Because Addis Ababa is a dusty city, it has many attractions.
   B) Because Addis Ababa is an African city, it has many attractions.
   C) Although Addis Ababa is an African city, it has many attractions.
   D) Although Addis Ababa is a dusty city, it has many attractions.
6. The passage is talking about that Ethiopia _____.
   A) has many tourist attractions C) lacks tourist attractions
   B) is a country that many tourists visit D) is a country of long history

7. Many things or activities are in time where asked or orders are given. For example, it is **obligatory** for all employees to wear protective clothing when they are in the electric power house. The meaning of the underlined word according to the passage is _____.
   A) slightly B) compulsory C) morally D) strongly
8. The Orthodox churches found in Ethiopia in the North West and East are famous for their **frescoes**. According to the passage, he meaning of the underlined word is ____.
   A) very old pictures B) walls C) underground churches D) sketches

Part Four: Matching main idea with its corresponding paragraph

Passage Two contains six paragraphs. Each paragraph has one main idea. Below are six main ideas of the paragraphs. Match each of the main idea with its corresponding paragraph (2 points each). Write your answer on the space provided.

Paragraph

9. Paragraph 1 _____
10. Paragraph 2 _____
11. Paragraph 3 _____
12. Paragraph 4 _____
13. Paragraph 5 _____
14. Paragraph 6 _____

Main Idea

A) Addis Ababa is described as it has both good and bad sides.
B) Many interesting tourist attractions are found in one part of Ethiopia.
C) Tourists should wear different clothes based on the climate of Ethiopia.
D) Tourists can get visa from Ethiopian Embassy.
E) There are different ways of travelling to tourist attraction.
F) Ethiopia has interesting tourist attractions.

Appendix A2: Pre-test of main study

Heto Secondary School

Student Name: _____ Grade 9, Section _____

St. Code: _____ Time given: 90 minutes, Total Marks: 50 (Score out of 50: _____)

General Directions: This is a reading comprehension test. It is aimed at understanding the level of reading ability of Grade 9 students. For this purpose, two passages have been provided below and a total of 30 questions (16 from passage one and 14 from passage two) have been asked. The questions are presented in four parts. Therefore, you are expected to read the passages and the directions given under each part carefully and answer all the 30 questions accordingly.

Reading Passage One: **Read the following passage carefully and answer the questions (1-17) that follow**

1 "I'd like to tell you a story. It's a true story, which happened to me and my mother about ten years ago. We used to live in Cyprus, an island in The Mediterranean and we'd planned to go back to the UK for a holiday. We decided to fly because the army gave us really cheap flights.

2 I remember the day so well. We got up really in the morning and my father drove us to the airport. He said goodbye and we said we'd ring as soon as we got back to England. He stayed and watched out plane leave and drove back home.

3 After about half an hour, I heard a really strange noise coming from above my head. Suddenly, one of the air hostesses ran down the aisle looking very worried. The noise was getting worse and worse and people were starting to panic. At that moment, the pilot spoke over the Tannoy. He said that there was a slight technical problem with the plane and that would be returning to Cyprus. He had to **get rid of** all the fuel and fly extremely low and close to the sea, in case we had to crash land. We put on our **life jackets** and hoped for the best.

4 Fortunately, about half an hour later we landed safely, thanks to the pilot. When we got off the plane, I remember looking up and seeing a large hole in the plane, about the size

of a door! They explained that we would have to wait until the next day to return to the UK.

5 So my mother and I decided to head back home. We decided not to trouble my father and so we took a taxi from the airport. I'll never forget the expression on my father's face as he opened the door and saw us standing there. **He** went very pale as if he was looking at two ghosts. "But I'm sure I saw you took off?" he asked. He just couldn't believe his eyes. Little did he know what had nearly happened."

Part One: **Short Answer (10 points)**

For questions 1-5, write one or two words only on the space provided (2 points each).

1. The pronoun '**He**' (paragraph **5**, line **3**) refers to _____.
2. Write the place (name of the place) where Cyprus is found _____.
3. In paragraph **3** in the passage, what was getting worse and worse? _____
4. According to the passage, how many persons decided to fly from the family? _____.
5. Who told the passengers that there was a slight technical problem with the plane? _____

Part Two: True or False (5 points)

For questions 6-10, write TRUE for correct statement and FALSE for incorrect statement (1 point each).

6. The place where the persons lived before they came to Cyprus is England. _____
7. According to the passage, the writer of the story is a female. _____
8. In paragraph **5**, father went very pale because he was looking at two real ghosts. _____
9. According to the passage, the story narrated was a true story. _____
10. The passengers decided to fly because traveling by plane is regularly cheaper than traveling by cars. _____

Part Three: Multiple-Choice (30 points)

For questions 11-25, choose the best answer from the given alternatives and CIRCLE the letter of your choice (1.5 points each).

11. It can be inferred from the passage that the course of the problem
    A) was not controlled.
    B) was not controlled within thirty minutes easily.

C) was controlled after they had landed safely.

D) was not controlled before they had landed safely.

12. It was important to get rid of all the fuel in order to

A) explode the plane, but save the lives. C) save the plane and all the people in it.

B) save the passengers, but dismiss the plane. D) burn all the passengers and the hostesses.

13. It is inferred in the passage that the passengers put on **life jackets** to _____.

A) fly in the air as a bird does C) save the plane and the pilot only

B) save their lives by getting out of the plane D) make the plane empty

14. According to the passage, until when did they wait in Cyprus to return to the UK?

A) Until the next week B) until two weeks C) until two days D) Until one day

15. The phrase 'get rid of all the fuel' (paragraph 3, line 5) means _____.

A) avoid the unwanted fuel C) keep the fuel for future use

B) increase the fuel needed D) transfer the extra fuel to another plane

16. The two opposing ideas, such as "taking off" and "going back" were mentioned in paragraph _____. A) 1 B) 5 C) 3 D) 4

17. Which most accurately states the main idea of the passage?

B) A Lovely Family C) A Narrow Escape

B) A Careful Pilot D) An Airplane Crash

<u>Reading Passage Two</u>: Read the following passage carefully and answer the questions (18-30) that follow.

1 Back on the travel map after many years of war and famine, Ethiopia has a fascinating cultural heritage.

2 The capital, Addis Ababa, is a dusty, sprawling African city, but has some great attractions, not least the National Museum, home to the 3.5 million-year-old remains of Lucy, one of the earliest hominid (pre-human) fossils. In addition to the many frescoed ceilings in ancient churches a must-see experience is a visit to the Markato, East Africa's largest open-air market.

3 Many sites of interest are clustered in the north of the country. The Simien Mountains attract trekkers and wildlife watchers, drawn by the stunning landscape and the chance of spotting ibex, baboon or the rare Ethiopian wolf. Aksum is the home to underground palaces, royal tombs and monolithic granite stelae. Another place of special interest is Gondor, capital of Ethiopia from the 17^{th} to the 19^{th} century; its well-preserved castles and palaces are fascinating and exceptionally picturesque. The rock churches of Lalibela and Tigray are world-famous. Lake Tana and its islands are blessed with some 200 monasteries, while the nearby Blue Nile Falls (Tis Isat) thunder 400m in spectacular (and noisy) fashion.

4 The **obligatory** tourist visa ($43) can be obtained from the Ethiopian Embassy at 17 Princes Gate, London-www.ethioembassy.org.uk)

5 You should dress modestly with your shoulders and knees covered. Take a mixture of clothing because the flora and climate of Ethiopia is **diverse**, with desert to the south and highlands in the north.

6 It's well worth considering domestic flights from Addis Ababa with Ethiopian Airlines because most flights are reasonably cheap prices and cut out days spent travelling by road. A good network of cheap but slow buses connects all the major towns in Ethiopia, but for smaller towns you will need a hire car which, although easy to get hold of, may prove expensive. For further reading try Ethiopia & Eritrea (Lonely Planet, 2003)

From Cathy Malcolm adapted from Wanderlust magazine Feb/March 2004 Issue 2

For items 18-25, choose the most suitable answer from the given alternatives, and CIRCLE the letter of your choice.

18. According to the passage, which one is the East Africa's largest open-air market?

B) Merkato B) Gullele C) Acra D) Gambo

19. According to the passage, the former capital of Ethiopia was _____.

B) Bahir Dar B) Gondor C) Aksum D) Lalibela

20. According to the passage, what can be obtained from the Ethiopian Embassy?

A) tourist B) passport C) visa D) transport

21. According to paragraph **3**, where are rock churches found? They are found in ____.

B) Jima B) Gondor C) Aksum D) Lalibela

22. Which one of the following is true according to paragraph **2** of passage two?

E) Because Addis Ababa is a dusty city, it has many attractions.

F) Because Addis Ababa is an African city, it has many attractions.

G) Although Addis Ababa is an African city, it has many attractions.

H) Although Addis Ababa is a dusty city, it has many attractions.

23. Passage two is talking mainly about that Ethiopia

C) has many tourist attractions. C) lacks tourist attractions.

D) is a country that many tourists visit. D) is a country of long history.

24. Many things or activities are in time where asked or orders are given. For example, it is **<u>obligatory</u>** for all employees to wear protective clothing when they are in the electric power house. The meaning of the underlined word according to the passage is _____.

B) introductory B) compulsory C) participatory D) necessary

25. According to the passage, the meaning of the word '**<u>diverse</u>**' (paragraph 2, line 3) is____.

A) different B) similar C) considerable D) acceptable

Part Four: <u>Matching</u> (10 points)

Passage Two contains six paragraphs. Each paragraph has one main idea as provided under column B. Match each of the main idea with its corresponding paragraph listed under column A. Only one main idea that corresponds to paragraph one is left out (2 points each).

A <u>(Paragraph)</u>	**B <u>(Main Idea)</u>**
26. Paragraph 2 ____	A) Addis Ababa has both good and bad sides.
27. Paragraph 3 ____	B) There are different ways of travelling to tourist attractions.
28. Paragraph 4 ____	C) Ethiopia has interesting tourist attractions.
29. Paragraph 5 ____	D) Tourists can get visa from Ethiopian Embassy.

30. Paragraph 6 ____

E) Many tourist attractions are found in one part of Ethiopia

F) Tourists should wear different clothes based on the climate.

Appendix A3: Post-test of pilot study

School: Yekatit 25/67 Secondary School, Date:

Student Name: _____ Grade 9, Section _____

St. Code: _____ Time given: 2hrs, Total Marks: 50 (Score out of 50: _____)

General Directions: This is a reading comprehension test. The purpose of the test is to check if Grade 9 students who were taught reading for 12 hours in the first semester have improved their reading ability. For this purpose, two passages which contain a total of 30 questions have been provided below. The questions are presented in four parts. Therefore, you are expected to read the passages and the directions given under each part carefully and answer all the 30 questions accordingly.

Reading Passage One: **Read the following passage carefully and answer the questions (1-15) that follow (25 marks).**

1 At 5:30 **this morning**, the owner of the Central Jewellery's shop telephoned the police. He said that thieves had broken into his shop and that they had stolen forty watches.

2 Inspector Abeba and two policemen went to the shop to see what had happened. When they arrived, they found glass all over the **pavement**. The owner and his night watchman met them outside the shop. Inspector Abeba took out her notebook and asked the night watchman what had happened.

3 The night watchman said that he was sitting in his room at the back of the shop when, at about four o'clock this morning, he heard the sound of breaking glass. He tried to switch on the lights, but somebody had turned the electricity at the main switch, so he picked up his stick and went out into the shop. Somebody grabbed him from behind and put a cloth over his mouth and he subsequently fainted. He thought the cloth was probably soaked in drugs. When he recovered, he thought that the thieves had broken the glass and had opened the shop door. He thought that after this, **they** had come into the shop and turned off the electricity. Then they had drugged him, broke into the cupboards and stole a lot of watches. When he felt better, he had telephoned the owner of the shop and told him what had happened.

4 Inspector Abeba asked the owner of the shop what he had done. The owner replied that he came as quickly as possible and saw what had happened. The thieves had only stolen the expensive watches. They had left the cheap ones. Then he telephoned the police.

5 The inspector then turned to the night watchman and asked him to show **her** the main switch. The night watchman said that the switch was in his room at the back. But Inspector Abeba did not follow the night watchman into the back room. Instead, **she** turned to the other policemen and told them to arrest the night watchman, who was the thief. He had stolen the watches. One of the policemen put some handcuffs on the **offender**, and he was taken to the police station.

Part One: Short Answers

For questions 1-5, write one or two words only on the space provided (2 points each).

1. Who telephoned the police? _____
2. What is the name of the shop mentioned in the passage? _____
3. According to the passage, what were stolen? _____
4. The pronoun '**she**' (paragraph **5**, line **3**) refers to _____.
5. What are the two opposite adjectives mentioned in paragraph **4**? _____ and _____

Part Two: Choice 1

For questions 6-15, choose the best answer from the given alternatives and CIRCLE the letter of your choice (1.5 points each).

6. According to the passage, all the things stolen from the shop were returned back to the shop by the help of the police. A) true B) false
7. What do you think were stolen from the shop?
   B) dollars B) watches C) clothes D) switches
8. Who do you think told the police that thieves had broken into the shop?
   A) The night watchman of the shop
   B) The customer of the shop
   C) The owner of the shop
   D) The share holder of the shop
9. It was important for the police to investigate the case in order to identify
   A) innocent persons in the area.
   B) amount of things in the shop.
   C) number of shops in the area.
   D) criminals of the issue in the area.
10. … 'this morning' (paragraph 1, line 1) refers to _____.
    A) the morning of today C) the morning of the case happened

C) the morning of everyday D) the morning of the unknown time

11. According to the passage, the policemen arrested the night watchman because he
    A) had been a thief. C) couldn't call the owner early.
    B) was not a good watchman D) couldn't give information properly.
12. What is the possible meaning of the word 'pavement' (in paragraph 2, line 2)?

    A) floor B) ceiling C) wall D) door

13. In the passage (paragraph 3, line 4), the meaning of the word 'offender' is _____.
    A) guilty B) genuine C) innocent D) guard
14. The fourth paragraph of the passage is explaining about what _____ did.
    A) Inspector Abeba
    B) the owner of the shop
    C) the night watchman
    D) the policemen
15. Which paragraph contains the right time that the owner of the shop telephoned the police? A) 2 B) 5 C) 3 D) 1

<u>Reading Passage Two</u>: Read the following passage carefully and answer the questions (16-30) that follow (25 marks).

1 Awramba is an Ethiopian intentional community of about 463 people, located 73 kilometres east of Bahir Dar in the Fogera woreda of Debub Gondar Zone. It was founded in 1980 with the goal of solving socio-economic problems through helping one another in an environment of egalitarianism — in marked contrast to the traditional norms of Amhara society. The name means 'Top of the Hill' in Amhara.

2 Founded by Zumra Nuru, who currently serves as co-chairman of the community, with 19 other people who shared his vision. As of 2016, Awramba has some 450 members, and is lauded as a model to alleviate poverty and promote gender equality in a country where women are generally **subservient** to men.

3 The fact that its members work together is diligent, disciplined and self-confident makes the Awramba community distinct from other Amhara communities. Women have equal rights as men and there is no distinction in divisions of labor between men and women. All people in the community have no religion as distinct from most communities

in Ethiopia. They believe in hard work and being good to people. They keep their houses and their surrounding clean. Theft is seen as very obscene.

4 The community is ostracized, as it does not belong to either of the two primary religious groupings — Christianity or Islam. Members of the Awramba community, therefore, were not given agricultural land to cultivate, but instead were pushed into the most infertile and malaria infested corner of the district. As they cannot live on farm activities, they have diversified into the weaving business, using both traditional and modern weaving machines. In addition, using three grinding mills provided by the Regional Micro and Small Scale Enterprise Development Agency, they offer milling service to neighboring farmers. The village hopes to earn more money in order to build potable water and sewage systems, pave the road, and create an education fund for the children.

5 The village is unique not only for its attitudes toward gender, religion, and education, but for the social security **it** provides its members in need. There are formal committees to provide services which include education, to receive guests, to take care of patients, the elderly and children, and community health. They have established a literacy campaign for adults, a library, and a preschool. Despite living in a culture which practices early marriage, the people of Awramba have decided girls should marry only after reaching the age of 18, and boys at or above 22.

Part Three: : Choice 2

For items 16-25, choose the most suitable answer from the given alternatives, and CIRCLE the letter of your choice (1.5 each).

16. where is Awramba found?
    A) in Tigray B) in oromia C) in Amhara D) in Afar
17. At what age is a boy/girl expected to get married in Awramba?
    A) 18/18 B) 21/18 C) 22/18 D) 20/18
18. What does Awramba mean?
    A) Top of the hill C) Ethiopian international community
    B) A unique village D) An Amhara society
19. Awramba is _____ in Ethiopia.

A) one of the towns C) an international community
B) a regional state D) a national park

20. 'it' (paragraph 5, line 2) refers to _____.
A) member B) village C) attitude D) social security
21. The possible meaning of 'subservient' (paragraph 2, line 4) is _____.
A) superior B) inferior C) better D) worse
22. Which one of the following is true about Awramba community?
A) Men and women do not have equal rights.
B) Any member has his/her own religion to follow.
C) There is distinction in divisions of labor between men and women.
D) Theft is considered as very bad act.
23. The passage is possibly telling us that Awramba js _____ society in Ethiopia.
A) a unique C) an uncivilized
B) a primitive D) an ignored
24. Awramba community was founded mainly for solving _____ problems.
A) socio-economic C) solving educational
B) gender inequality D) solving religious
25. The traditional norms of Awramba community and Amhara society are very similar.
A) True B) False C) Neither true nor false D) I can't decide.

Part Four: Matching

Passage Two contains five paragraphs. Each paragraph has one main idea as provided under column B. Match each of the main idea with its corresponding paragraph listed under column A (2 points each).

A (Paragraph)	**B (Main Idea)**
26. Paragraph 1 ____	A) Awramba has been described for its distinct features.
27. Paragraph 2 ____	B) Awramba has been considered as a model for plans and actions.
28. Paragraph 3 ____	C) Awramba has been described for its essence or existance
29. Paragraph 4 ____	D) Necessary activities of Awramba people have been explained.
30. Paragraph 5 ____	E) Awramba has been described as unique for the activities it gives its members.

Appendix A4: Post-test of main study

Heto Secondary School

Student Name: _____ Grade 9, Section _____

St. Code: _____ Time given: 90 minutes, Total Marks: 50 (Score out of 50: ____)

General Directions: This is a reading comprehension test. The purpose of the test is to check if Grade 9 students who were taught reading for 12 hours in the first semester have improved their reading ability. For this purpose, two passages which contain a total of 30 questions have been provided below. The questions are presented in four parts. Therefore, you are expected to read the passages and the directions given under each part carefully and answer all the 30 questions accordingly.

Reading Passage One: **Read the following passage carefully and answer the questions (1-17) that follow.**

1 At 5:30 **this morning**, the owner of the Central Jewellery's shop telephoned the police. He said that thieves had broken into his shop and that they had stolen forty watches.

2 Inspector Abeba and two policemen went to the shop to see what had happened. When they arrived, they found glass all over the **pavement,** on the ground. The owner and his night watchman met them outside the shop. Inspector Abeba took out her notebook and asked the night watchman what had happened.

3 The night watchman said that he was sitting in his room at the back of the shop when, at about four o'clock this morning, he heard the sound of breaking glass. He tried to switch on the lights, but somebody had turned the electricity at the main switch, so he picked up his stick and went out into the shop. Somebody grabbed him from behind and put a cloth over his mouth and he subsequently fainted. He thought the cloth was probably soaked in drugs. When he recovered, he thought that the thieves had broken the glass and had opened the shop door. He thought that after this, **they** had come into the shop and turned off the electricity. Then they had drugged him, broke into the cupboards and stole a lot of watches. When he felt better, he had telephoned the owner of the shop and told him what had happened.

4 Inspector Abeba asked the owner of the shop what he had done. The owner replied that he came as quickly as possible and saw what had happened. The thieves had only stolen the **expensive** watches. They had left the cheap ones. Then he telephoned the police.

5 The inspector then turned to the night watchman and asked him to show **her** the main switch. The night watchman said that the switch was in his room at the back. But Inspector Abeba did not follow the night watchman into the back room. Instead, **she** turned to the other policemen and told them to arrest the night watchman, who was the thief. He had stolen the watches. One of the policemen put some handcuffs on the **offender**, and he was taken to the police station.

Part One: **Short Answer (12.5 points)**

For questions 1-5, write one or two words only on the space provided (2.5 points each).

1. What is the name of the **shop** mentioned in the passage?_____
2. According to the passage, what were stolen? _____
3. The pronoun '**she**' (paragraph 5, line 3) refers to _____.
4. Two opposite words in paragraph **4** are **expensive** and _____.
5. What was the **amount** of the things stolen from the shop? _____

Part Two: True or False (5 points)

For questions 6-10, write TRUE for correct statement and FALSE for incorrect statement (1 point each).

6. The shop owner telephoned the police in the morning. _____
7. Among other things, jewelleries were stolen from the shop. _____
8. The stolen things have been returned back to the shop. _____
9. According to the passage, the police could identify the thief. _____
10. The night watchman was not taken to the police station. _____

Part Three: Multiple-Choice (22.5 points)

For questions 11-25, choose the best answer from the given alternatives and CIRCLE the letter of your choice (1.5 points each).

11. Which paragraph contains the right time that the police were told by telephone?
    A) 2 B) 5 C) 3 D) 1

12. The _____ of the shop told the police that thieves had broken into the shop.
    A) night watchman B) customer C) owner D) share holder
13. In paragraph 1, line 1, the phrase 'this morning' refers to _____.
    A) the morning of the case happened C) the morning of today
    B) the morning of everyday D) the morning of the unknown time
14. According to the passage, the policemen arrested the night watchman because he
    A) was not a good watchman C) couldn't give information properly.
    B) had been a thief. D) couldn't call the owner early.
15. What is the possible meaning of the word 'pavement' (paragraph 2, line 2)?
    A) door B) ceiling C) wall D) floor
16. In the passage (paragraph 5, line 5), the meaning of the word 'offender' is _____.
    A) innocent B) guilty C) genuine D) guard
17. The fourth paragraph of the passage is explaining about what _____ did.
    A) Inspector Abeba C) the night watchman
    B) the owner of the shop D) the policemen

<u>Reading Passage Two</u>: Read the following passage carefully and answer the questions (18-30) that follow.

1 Awramba is an Ethiopian intentional community of about 463 people, located 73 kilometres east of Bahir Dar in the Fogera woreda of Debub Gondar Zone. It was founded in 1980 with the goal of solving socio-economic problems through helping one another in an environment of egalitarianism — in marked contrast to the traditional norms of Amhara society. The name means 'Top of the Hill' in Amhara.

2 Awramba was founded by Zumra Nuru, who currently serves as co-chairman of the community, with 19 other people who shared his vision. As of 2016, Awramba has some 450 members, and is lauded as a model to alleviate poverty and promote gender equality in a country where women are generally **subservient** to men.

3 The fact that its members work together is diligent, disciplined and self-confident makes the Awramba community distinct from other Amhara communities. Women have equal rights as men and there is no distinction in divisions of labor between men and women. All people in the community have no religion as distinct from most communities in Ethiopia. They believe in hard work and being good to people. They keep their houses and their surrounding clean. Theft is seen as very obscene.

4 The community is ostracized, as it does not belong to either of the two primary religious groupings — Christianity or Islam. Members of the Awramba community, therefore, were not given agricultural land to cultivate, but instead were pushed into the most infertile and malaria infested corner of the district. As they cannot live on farm activities, they have diversified into the weaving business, using both traditional and modern weaving machines. In addition, using three grinding mills provided by the Regional Micro and Small Scale Enterprise Development Agency, they offer milling service to neighbouring farmers. The village hopes to earn more money in order to build potable water and sewage systems, pave the road, and create an education fund for the children.

5 The village is unique not only for its attitudes toward gender, religion, and education, but for the social security **it** provides its members in need. There are formal committees to provide services which include education, to receive guests, to take care of patients, the elderly and children, and community health. They have established a literacy campaign for adults, a library, and a preschool. Despite living in a culture which practices early marriage, the people of Awramba have decided girls should marry only after reaching the age of 18, and boys at or above 22.

For items 18-25, choose the most suitable answer from the given alternatives, and CIRCLE the letter of your choice.

18. What does Awramba mean?
    A) A regional society C) An international community
    B) A unique village D) Top of the hill
19. Awramba is _____ in Ethiopia.
    A) one of the towns C) an international community
    B) a regional state D) a national park
20. **'it'** (paragraph **5**, line **2**) refers to _____.
    A) service B) village C) attitude D) security
21. The possible meaning of '**subservient'** (paragraph **2**, line **4**) is _____.
    A) superior B) inferior C) better D) worse
22. At what age is a boy/girl expected to get married in Awramba?
    A) 18/18 B) 21/18 C) 22/18 D) 20/18

23. The passage is possibly telling us that Awramba is _____ society in Ethiopia.
    A) a unique C) an uncivilized
    B) a primitive D) an ignored
24. Awramba community was founded mainly for solving _____ problems.
    A) socio-economic C) educational
    B) gender inequality D) religious
25. One of the following is true about Awramba community.
    A) Men and women do not have equal rights.
    B) Any member has his/her own religion to follow.
    C) There is difference in divisions of labor between men and women.
    D) Theft is discouraged as it is considered as very bad act.

Part Four: Matching (10 points)

Passage Two contains five paragraphs. Each paragraph has one main idea as provided under column B. Match each of the main idea with its corresponding paragraph listed under column A (2 points each).

A (Paragraph)	**B (Main Idea)**
26. Paragraph 1 ____	A) Awramba has been described for its distinct features.
27. Paragraph 2 ____	B) Awramba has been considered as a model for plans and actions.
28. Paragraph 3 ____	C) Awramba has been described for its essence or existence.
29. Paragraph 4 ____	D) Necessary activities of Awramba people have been explained.
30. Paragraph 5 ____	E) Awramba has been described as unique for the activities it gives its members.

Appendix B: Questionnaires

Appendix B1: Metacognitive reading strategy awareness questionnaire (pre and post)

This is a questionnaire of a PhD research concerning Grade 9 students' reading strategy. Thus, your genuine response is very helpful for the research finding. Any information of this questionnaire does not have any harm on the respondents.

Directions: Listed below are statements about what students do when they read academic or school-related materials such as textbooks or library books. Five numbers follow each statement (1, 2, 3, 4, 5), and each number means the following:

1 means —I never or almost never do this.
2 means —I do this only occasionally.
3 means —I sometimes do this.
4 means —I usually do this.
5 means —I always or almost always do this.

Please read the situation and statement, and then **circle the number** of the scale to indicate your agreement. Note that there is no right or wrong answer.

No	Strategy	Scale				
1	I have a purpose in mind when I read. **ሳነብ በአላማ አነባለሁ።።**	1	2	3	4	5
2	I take notes while reading to help me understand what I read. **ያነበብኩትን እንድረዳ እንዲያግዘኝ ሳነብ ማስታወሻ እይዛለሁ።።**	1	2	3	4	5
3	I summarize what I read to reflect on important information in the text. **በሚነበብ ነገር ውስጥ ያለውን ጠቃሚ መረጃ ለማገኘት ስል የማነበውን ነገር አጠቃልላለሁ።።**	1	2	3	4	5
4	I try to get back on track when I lose concentration. **ትኩረት በሚያንሰኝ ጊዜ ወደኋላ ተመልሼ ለማንበብ እሞክራለሁ።።**	1	2	3	4	5
5	I underline or circle information in the text to help me remember it. **ለማስታወስ እንዲረዳኝ ጠቃሚ ሀሳቦችን አሰምራለሁ ወይም አክባለሁ።።**	1	2	3	4	5
6	I use reference materials such as dictionaries to help me understand what I read. **የማነበውን እንድረዳ እንዲያግዘኝ መዝገበቃላትንና የመሳሰሉ ማጣቀሻዎችን እጠቀማለሁ።።**	1	2	3	4	5
7	I use tables, figures, and pictures in text to increase my understanding. **መረዳቴን እንዲጨምሩልኝ በምንባብ ውስጥ ያሉ ሰንጠረዦችን፣ ቁጥሮችንና ፎቶዎችን እጠቀማለሁ።።**	1	2	3	4	5
8	I use context clues to help me better understand what I am reading. **እያነበብኩ ያለሁትን ነገር በተሻለ ሁኔታ እንድረዳ እንዲያግዘኝ የምንባቡን የአውድ ፍንጮችን እጠቀማለሁ።።**	1	2	3	4	5

9	I paraphrase (restate ideas in my own words) to better understand what I read. **የማነበውን ነገር በተሻለ ሁኔታ ለመረዳት የጽሁፉን ሀሳብ በራሴ ቃላት እጽፋለሁ ወይም አብራራለሁ።**	1	2	3	4	5
10	I guess the meaning of unknown words by separating different parts of a word. **የማላውቃቸውን ቃላት ነጣጥዬ በማየት ትርጉማቸውን እገምታለሁ።**	1	2	3	4	5
11	I think about what I know to help me understand what I read. **የማነበውን ነገር እንድረዳ እንዲያግዘኝ የማውቀውን ነገር አስባለሁ።**	1	2	3	4	5
12	I preview the text to see what it is about before reading it. **ከማንበቤ በፊት ምንባቡ ስለምን መሆኑን ለማወቅ እመለከታለሁ።**	1	2	3	4	5
13	When text becomes difficult, I read aloud to help me understand what I read. **የማነበው ነገር የሚከብደኝ ጊዜ ለመረዳት እንዲያግዘኝ ለራሴ ጮክ ብዬ አነባለሁ።**	1	2	3	4	5
14	I think about whether the content of the text fits my reading purpose. **የማነበው ነገር ከማነብብት አላማ ጋር ስለመሄዱ አስባለሁ።**	1	2	3	4	5
15	I read slowly but carefully to be sure I understand what I am reading. **የማነበውን ነገር ስለመረዳቱ እርግጠኛ ለመሆን በጥንቃቄና በዝግታ አነባለሁ።**	1	2	3	4	5
16	I discuss what I read with others to check my understanding. **የማነበውን ነገር መረዳቴን ለማጣራት ከሌሎች ጋር እወያያለሁ።**	1	2	3	4	5
17	I skim the text first by noting characteristics like length and organization. **ማንበብ ስጀምር፣ የሚነበበውን ነገር ርዝመትና አደረጃጀት በማየት እጀምራለሁ።**	1	2	3	4	5
18	I adjust my reading speed according to what I am reading. **የማንበብ ፍጥነቴን እያነበብኩ ካለሁት ነገር አንጻር አስተካክላለሁ።**	1	2	3	4	5
19	I decide what to read closely and what to ignore. **ማንበብ የሚገባኝንና ማንበብ የማይገባኝን እወስናለሁ።**	1	2	3	4	5
20	When text becomes difficult, I pay closer attention to what I am reading. **የማነበው ነገር ሲከብደኝ፣ የማነበውን ነገር ትኩረት ሰጥቼ አነባለሁ።**	1	2	3	4	5
21	I stop from time to time and think about what I am reading. **እያነበብኩ ያለሁትን ነገር በየጊዜው ቆም እያልኩ አስባለሁ።**	1	2	3	4	5
22	I try to picture or visualize information to help remember what I read. **በማንበብ የማገኘው መረጃ በአእምሮዬ እንዲቀረጽ እጥራለሁ።**	1	2	3	4	5
23	I use typological aids like boldface and italics to identify key information. **ቁልፍ መረጃዎችን ለመለየት በደማቅና በቀጭን የተጻፉትን እንደመርጃ መሳሪያ እጠቀማለሁ።**	1	2	3	4	5
24	I critically analyze and evaluate the information presented in the text. **በምንባብ ውስጥ የቀረቡ መረጃዎችን በጥልቀት/በሚገባ እተነትናለሁ፤ እገመግማለሁም።**	1	2	3	4	5
25	I go back and forth in the text to find relationship among ideas in it. **በቴክስት ውስጥ ያሉ ሀሳቦች እንዴት እንደሚገናኙ ለመረዳት ወደኋላና ወደፊት እያልኩ አነባለሁ።**	1	2	3	4	5

26	I check my understanding when I come across conflicting information. **የሚጋጩ ሀሳቦች ሲያጋጥሙኝ አረዳዴን እፈትሻለሁ።።**	1	2	3	4	5
27	I try to guess what the material is about when I read. ሳነብ የማነበው **ነገር ስለምን መሆኑን ለመገመት ጥረት አደርጋለሁ።።**	1	2	3	4	5
28	When text becomes difficult, I reread to increase my understanding. **የማነበው ነገር ሲከብደኝ፣ መረዳቴን ለመጨመር ደጋግሜ አነባለሁ።።**	1	2	3	4	5
29	I ask myself questions I like to have answered in the text. **በቴክስት ውስጥ እንዲመለሱልኝ ስለምፈልጋቸው ጥያቄዎች ራሴን ጥያቄ እጠይቃለሁ።።**	1	2	3	4	5
30	I check to see if my guesses about the text are right or wrong. **ስለምነበበው ነገሮች የገመትኳቸው ግምቶች ልክ መሆን አለመሆናቸውን አጣራለሁ።።**	1	2	3	4	5

Appendix B2: Reading motivation questionnaire (pre-and post)

This is a questionnaire of a PhD research concerning Grade 9 students' reading motivation. Thus, your genuine response is very helpful for the research finding. Any information of this questionnaire does not have any harm on the respondents.

Directions: Listed below are statements about how students are motivated when they read texts in English. Please read the situation and statement carefully, and then **circle the number** of the scale to indicate your agreement. 1—Strongly Disagree, 2—Disagree, 3—Neutral, 4—Agree, and 5—Strongly Agree. Note that there is no right or wrong answer.

No	**Factors/Items**	scale				
Extrinsic Utility Value of Reading						
1	Reading in English is enjoyable. **በእንግሊዝኛ ማንበብ አስደሳች ነው።።**	1	2	3	4	5
2	I like reading in English. **በእንግሊዝኛ ማንበብ እወዳለሁ።።**	1	2	3	4	5
3	Reading in English is boring. **በእንግሊዝኛ ማንበብ ይሰለቻል።።**	1	2	3	4	5
4	I feel peaceful while reading in English. **በእንግሊዝኛ ሳነብ ሰላም ይሰማኛል።።**	1	2	3	4	5
5	I have a great desire to read English. **በእንግሊዝኛን ለማንበብ ከፍተኛ ፍላጎት አለኝ።።**	1	2	3	4	5
6	I would never read in English if it were not a compulsory subject. **እንግሊዝኛ ዋና ሳብጀክት ባይሆን በእንግሊዝኛ አላነብም።።**	1	2	3	4	5
7	I never read in English unless I have to. **በእንግሊዝኛ ማንበብ ባይኖርብኝ ኖሮ አላነብም ነበር።።**	1	2	3	4	5
8	I hate reading in English. **በእንግሊዝኛ ማንበብ እጠላለሁ።።**	1	2	3	4	5
9	I read in English even if I do not have to. **ማንበብ ባይኖርብኝ እንኳ በእንግሊዝኛ አነባለሁ።።**	1	2	3	4	5
10	I'd rather do something else than reading in English. **በእንግሊዝኛ ከማንበብ ይልቅ ሌላ ነገር ብሰራ እመርጣለሁ።።**	1	2	3	4	5
11	I spend time to read in English. **በእንግሊዝኛ ለማንበብ ጊዜ እወስዳለሁ።።**	1	2	3	4	5
12	Reading in English feels like torture. **በእንግሊዝኛ ማንበብ የመታሰር አይነት ስሜት አለው።።**	1	2	3	4	5
13	I do not read in English even if I have time. **ጊዜ ቢኖረኝ እንኳ በእንግሊዝኛ አላነብም።።**	1	2	3	4	5
14	I love reading in English.					

	በእንግሊዝኛ ማንበብ እወዳለሁ።።	1	2	3	4	5
15	Reading in English makes me happy. **በእንግሊዝኛ ማንበብ ያስደስተኛል።።**	1	2	3	4	5
16	The more I read in English, the more I want to read. **በእንግሊዝኛ ባነበብኩ ቁጥር የበለጠ እንዳነብ ያደርገኛል።።**	1	2	3	4	5
Reading Efficacy						
17	I can read in English fluently. **በእንግሊዝኛ በደንብ ማንበብ እችላለሁ።።**	1	2	3	4	5
18	I can comprehend most of what I read in English. **በእንግሊዝኛ ከማነበው ነገር አብዛኛውን መረዳት እችላለሁ።።**	1	2	3	4	5
19	I comprehend the texts in English at first reading. **የእንግሊዝኛ ቴክስቶችን በመጀመሪያ ንባቤ መረዳት እችላለሁ።።**	1	2	3	4	5
20	I have no problem with comprehending English text. **የእንግሊዝኛ ቴክስትን የመረዳት ችግር የለብኝም።።**	1	2	3	4	5
21	My reading skill in English is at an advanced level. **በእንግሊዝኛ የማንበብ ክሂሌ (ችሎታዬ) ከፍተኛ ነው።።**	1	2	3	4	5
22	I am successful at reading in English. **በእንግሊዝኛ በማንበብ ውጤታማ ነኝ።።**	1	2	3	4	5
Extrinsic Utility Value of Reading						
23	Reading in English is a beneficial for self-development. **ራስን ለማሳደግ በእንግሊዝኛ ማንበብ ጠቃሚ ነው።።**	1	2	3	4	5
24	Reading in English helps to find a better job. **በእንግሊዝኛ ማንበብ የተሻለ ስራን ለማገኘት ያግዛል።።**	1	2	3	4	5
25	Reading in English helps to prepare a better future for ourselves. **በእንግሊዝኛ ማንበብ የተሻለ የወደፊት ማንነት እንዲኖረን ያግዛል።።**	1	2	3	4	5
26	Reading in English helps us to become better individuals. **በእንግሊዝኛ ማንበብ የተሻለ ማንነት እንዲኖረን ያግዛል።።**	1	2	3	4	5
27	Reading in English provides us with better education. **በእንግሊዝኛ ማንበብ የተሻለን ትምህርት ያስገኛል።።**	1	2	3	4	5
Foreign Language Linguistic Utility						
28	Reading in English helps fluency in speech in English. **በእንግሊዝኛ ማንበብ በእንግሊዝኛ በደንብ ለመናገር ያግዛል**	1	2	3	4	5
29	Reading in English is the essential instrument to enlarge our vocabulary. **በእንግሊዝኛ ማንበብ ቃላትን የማሳደጊያ መሳሪያ ነው።።**	1	2	3	4	5

30	Reading in English contributes to the development of the writing skills in English. በእንግሊዝኛ ማንበብ በእንግሊዝኛ የመጻፍ ችሎታን ለማሳደግ አስተዋጽኦ ያደርጋል።	1	2	3	4	5
31	Reading in English contributes to the development of grammar in English. በእንግሊዝኛ ማንበብ የእንግሊዝኛ ሰዋሰው ችሎታን ለማሳደግ አስተዋጽኦ ያደርጋል።	1	2	3	4	5

Appendix C: Scores of tests

Appendix C1: Test scores of pilot study of 30 items

Pre-test and post-test scores of pilot study of 30 items (out of 50 marks)

ID	Pre-test Score	Post-test Score	ID	Pre-test Score	Post-test Score
01	18	22	**36**	15	10
02	24	17	**37**	32	12
03	09	18	**38**	14	10
04	29	32	**39**	22	16
05	12	11	**40**	24	12
06	10	9	**41**	25	23
07	20	17	**42**	20	23
08	17	20	**43**	21	19
09	22	20	**44**	13	17
10	14	11	**45**	21	12
11	29	19	**46**	14	6
12	11	18	**47**	11	9
13	13	9	**48**	20	14
14	11	9	**49**	14	12
15	27	17	**50**	25	9
16	20	24	**51**	30	32
17	12	14	**52**	17	30
18	15	17	**53**	17	29
19	12	17	**54**	09	18
20	23	15	**55**	17	7
21	11	10	**56**	27	23
22	15	13	**57**	15	19
23	16	19	**58**	17	13
24	09	8	**59**	10	8
25	13	8	**60**	27	16
26	16	9	**61**	10	9
27	14	27	**62**	24	19
28	25	8	**63**	20	13
29	11	13	**64**	35	11
30	34	35	**65**	15	19
31	11	11	**66**	14	17
32	13	22	**67**	12	21
33	16	9	**68**	22	10
34	14	10	**69**	19	30
35	10	15	**70**	18	13

Appendix C2: Test scores of main study **of 30 items (out of 50) before improvement**

Code	Pre-test (50%)	Post-test (50%)	Code	Pre-test (50%)	Post-test (50%)
01	15	16	**51**	27	19.5
02	11	16.5	**52**	25	13.5
03	27	21.5	**53**	14	10
04	18	25.5	**54**	18	9
05	13	14.5	**55**	8	8.5
06	8	6.5	**56**	13	17
07	16	16.5	**57**	23	13.5
08	25	22.5	**58**	15	7.5
09	28	22.5	**59**	14	16
10	22	28.5	**60**	30	24.5
11	6	14.5	**61**	16	30.5
12	17	10	**62**	23	28
13	8	17.5	**63**	29	27
14	16	24	**64**	25	4.5
15	17	13.5	**65**	26	19.5
16	27	26.5	**66**	33	26
17	12	7	**67**	19	17.5
18	13	9	**68**	18	18.5
19	25	25	**69**	22	16
20	13	8	**70**	21	5.5
21	12	21.5	**71**	11	14
22	9	12	**72**	11	6
23	19	23	**73**	20	18
24	20	23.5	**74**	19	27
25	10	16.5	**75**	10	15.5
26	19	18.5	**76**	14	9
27	34	44.5	**77**	20	15.5
28	22	21	**78**	22	30
29	23	25	**79**	12	10.5
30	16	16	**80**	24	17
31	24	15	**81**	11	17
32	6	8.5	**82**	16	15
33	21	17.5	**83**	21	6.5
34	13	14.5	**84**	17	1.5
35	24	22.5	**85**	7	16.5
36	16	8.5	**86**	35	27
37	21	17	**87**	25	21
38	22	26	**88**	16	18
39	21	21	**89**	22	27.5
40	26	20	**90**	15	19
41	15	8.5	**91**	24	22
42	21	12.5	**92**	26	10.5
43	31	25	**93**	16	11.5
44	17	12	**94**	13	7.5
45	21	16.5	**95**	20	12
46	19	35	**96**	14	7.5
47	19	27	**97**	21	20.5
48	28	14	**98**	29	15.5
49	15	18.5	**99**	5	9.5
50	18	12	**100**	14	8.5

Appendix C3: Test scores of main study of 25 items (out of 43 and 43.5)

Pre-test and post-test scores of main study of 25 items of each test (after rejecting five items (6, 16, 17, 23 and 24) from the pre-test and, similarly, five items (7, 8, 16, 21 and 25) from the post-test (See App. E6 & 7)

ID	Pre-test Score (43%)	Post-test Score (43.5%)	ID	Pre-test Score (43%)	Post-test Score (43.5%)	ID	Pre-test Score (43%)	Post-test Score (43.5%)
01	10	14.5	**36**	13.5	8.5	**71**	7.5	14
02	11	14	**37**	18.5	17	**72**	5.5	5
03	27	17.5	**38**	22	19	**73**	17	15
04	17	24	**39**	18.5	17	**74**	18.5	24.5
05	12.5	13	**40**	24.5	24.5	**75**	10	14.5
06	13	5	**41**	14	11	**76**	14	9
07	13	15	**42**	20	15.5	**77**	18	13.5
08	19.5	21.5	**43**	31	28.5	**78**	21.5	29
09	23.5	20	**44**	16	14.5	**79**	6	7
10	16	27.5	**45**	18.5	15.5	**80**	21	17
11	6	14.5	**46**	19	20.5	**81**	9	13
12	12.5	10	**47**	18	14.5	**82**	12	13.5
13	5.5	13.5	**48**	27	23	**83**	17.5	5.5
14	9	24	**49**	12.5	10.5	**84**	12.5	0
15	12.5	13.5	**50**	18	15.5	**85**	4.5	14
16	20.5	25	**51**	25.5	23.5	**86**	30	24.5
17	7.5	3	**52**	24	23.5	**87**	20	19.5
18	8.5	9	**53**	13	10.5	**88**	12	15.5
19	24.5	25	**54**	17	15.5	**89**	21	26
20	9	7	**55**	8	5	**90**	14.5	19
21	9.5	21.5	**56**	13	11	**91**	17.5	22
22	7	9.5	**57**	22	19.5	**92**	23	13.5
23	16.5	22	**58**	15	13.5	**93**	14	7.5
24	19.5	22	**59**	11.5	12	**94**	9.5	6
25	6	15.5	**60**	30	24	**95**	18	10
26	14.5	18.5	**61**	14.5	11.5	**96**	10	7.5
27	35	40.5	**62**	23	20.5	**97**	18	18
28	17	18.5	**63**	26.5	19	**98**	21	14.5
29	15	25	**64**	22.5	14.5	**99**	3.5	5.5
30	9.5	15	**65**	25	29.5	**100**	6.5	6
31	17.5	15	**66**	32	35			
32	4	7.5	**67**	18	19.5			
33	14	16.5	**68**	16.5	16			
34	11.5	12	**69**	19.5	23.5			
35	22.5	20	**70**	20	18.5			

Appendix D: Scores of Questionnaires

Appendix D1: Scores of metacognitive reading strategy awareness of pilot study

Pre- (Score 1) and post- (Score 2) scores of metacognitive reading strategy awareness questionnaire of 70 participants of the pilot study are put in the table below.

Reading Strategy			Reading Strategy		
ID	Score 1	Score 2	**ID**	Score 1	Score 2
01	130	106	**36**	80	115
02	80	101	**37**	76	102
03	102	121	**38**	86	119
04	117	98	**39**	80	103
05	108	109	**40**	102	96
06	103	97	**41**	112	135
07	128	90	**42**	121	117
08	75	75	**43**	99	120
09	85	134	**44**	122	116
10	85	84	**45**	107	120
11	107	126	**46**	117	86
12	99	139	**47**	106	114
13	82	132	**48**	108	99
14	112	100	**49**	104	126
15	94	94	**50**	85	121
16	110	84	**51**	109	136
17	111	105	**52**	60	130
18	114	86	**53**	78	105
19	113	112	**54**	121	136
20	132	130	**55**	107	132
21	127	96	**56**	127	104
22	112	119	**57**	118	120
23	118	100	**58**	98	99
24	82	123	**59**	118	107
25	64	107	**60**	101	121
26	102	112	**61**	90	85
27	70	79	**62**	77	120
28	120	131	**63**	97	109
29	81	129	**64**	102	123
30	129	128	**65**	87	126
31	88	136	**66**	102	111
32	96	116	**67**	89	104
33	109	115	**68**	71	124
34	94	89	**69**	81	125
35	71	95	**70**	74	127

Appendix D2: Scores of metacognitive reading strategy awareness of main study

Pre- (Score 1) and post- (Score 2) scores of metacognitive reading strategy awareness questionnaire of 100 participants of the main study are put in the table below.

Reading Strategy			Reading Strategy			Reading Strategy		
ID	Score 1	Score 2	**ID**	Score 1	Score 2	**ID**	Score 1	Score 2
01	108	138	**36**	94	118	**71**	96	106
02	109	84	**37**	127	113	**72**	106	99
03	111	69	**38**	123	118	**73**	117	85
04	103	93	**39**	117	97	**74**	124	94
05	89	83	**40**	120	104	**75**	121	95
06	58	125	**41**	94	85	**76**	123	94
07	84	100	**42**	92	105	**77**	98	63
08	81	108	**43**	89	129	**78**	118	120
09	99	74	**44**	78	98	**79**	118	116
10	120	106	**45**	100	88	**80**	90	82
11	83	68	**46**	103	118	**81**	117	95
12	140	88	**47**	122	104	**82**	112	53
13	127	100	**48**	131	70	**83**	99	72
14	47	118	**49**	128	128	**84**	115	74
15	119	101	**50**	104	135	**85**	117	64
16	38	72	**51**	103	92	**86**	125	106
17	114	85	**52**	125	73	**87**	130	128
18	98	85	**53**	131	77	**88**	135	78
19	119	102	**54**	102	98	**89**	133	90
20	124	104	**55**	126	40	**90**	120	76
21	128	86	**56**	140	111	**91**	53	62
22	231	88	**57**	119	63	**92**	79	67
23	105	103	**58**	117	127	**93**	55	100
24	62	109	**59**	125	122	**94**	89	95
25	73	90	**60**	125	94	**95**	118	96
26	113	104	**61**	95	94	**96**	122	119
27	117	89	**62**	118	105	**97**	133	129
28	104	116	**63**	98	89	**98**	132	89
29	59	86	**64**	88	90	**99**	139	62
30	73	131	**65**	10	94	**100**	122	93
31	65	147	**66**	88	104			
32	100	115	**67**	113	101			
33	97	117	**68**	101	118			
34	75	78	**69**	128	105			
35	73	112	**70**	133	126			

Appendix D3: Scores of reading motivation of pilot study

Pre-test (Score 1) and post-test (Score 2) scores of reading motivation questionnaire of 70 participants of the pilot study are put in the table below.

Reading Motivation			**Reading Motivation**		
ID	Score 1	Score 2	**ID**	Score 1	Score 2
01	125	110	**36**	91	116
02	84	140	**37**	122	102
03	83	139	**38**	127	79
04	126	125	**39**	103	90
05	142	88	**40**	75	123
06	79	89	**41**	68	106
07	120	90	**42**	122	84
08	100	108	**43**	102	104
09	67	107	**44**	101	111
10	104	96	**45**	123	105
11	117	130	**46**	113	98
12	125	117	**47**	98	121
13	108	112	**48**	110	108
14	74	100	**49**	117	91
15	99	88	**50**	103	114
16	92	138	**51**	111	120
17	109	112	**52**	122	121
18	82	110	**53**	93	107
19	121	114	**54**	131	95
20	89	112	**55**	112	116
21	87	106	**56**	85	108
22	94	108	**57**	107	123
23	112	129	**58**	133	104
24	98	96	**59**	121	112
25	116	114	**60**	105	137
26	94	134	**61**	130	100
27	103	141	**62**	105	121
28	112	116	**63**	114	120
29	109	125	**64**	114	104
30	132	104	**65**	110	114
31	101	92	**66**	106	101
32	96	119	**67**	92	102
33	138	114	**68**	147	85
34	101	131	**69**	136	109
35	86	110	**70**	108	84

Appendix D4: Scores of reading motivation of main study

Pre- (Score 1) and post- (Score 2) scores of reading motivation questionnaire of 100 participants of the main study

Reading Motivation			Reading Motivation			Reading Motivation		
ID	Score 1	Score 2	**ID**	Score 1	Score 2	**ID**	Score 1	Score 2
01	118	128	**36**	83	106	**71**	109	56
02	113	100	**37**	108	117	**72**	117	135
03	59	103	**38**	110	84	**73**	102	93
04	120	125	**39**	116	108	**74**	85	90
05	124	83	**40**	115	120	**75**	111	100
06	113	97	**41**	101	76	**76**	66	102
07	102	129	**42**	140	99	**77**	117	100
08	82	101	**43**	69	111	**78**	111	109
09	107	115	**44**	101	115	**79**	107	130
10	115	102	**45**	98	77	**80**	102	103
11	96	102	**46**	76	130	**81**	97	92
12	113	113	**47**	76	106	**82**	114	94
13	93	107	**48**	99	108	**83**	127	100
14	121	113	**49**	102	87	**84**	92	56
15	80	125	**50**	117	119	**85**	128	113
16	110	112	**51**	114	106	**86**	112	81
17	145	69	**52**	116	99	**87**	85	103
18	83	110	**53**	97	114	**88**	122	82
19	93	104	**54**	103	73	**89**	118	101
20	72	136	**55**	121	120	**90**	93	110
21	110	63	**56**	129	120	**91**	107	94
22	104	124	**57**	122	68	**92**	109	112
23	117	93	**58**	98	64	**93**	116	80
24	107	90	**59**	102	111	**94**	108	100
25	123	59	**60**	132	124	**95**	94	107
26	95	102	**61**	102	107	**96**	123	102
27	121	131	**62**	109	112	**97**	112	138
28	84	110	**63**	64	111	**98**	105	118
29	118	87	**64**	113	122	**99**	114	90
30	103	109	**65**	104	103	**100**	123	106
31	111	108	**66**	115	116			
32	109	99	**67**	125	76			
33	94	124	**68**	92	117			
34	69	123	**69**	108	97			
35	51	132	**70**	102	102			

Appendix E: Validation processes of tests

Appendix E1: Evaluation criteria of tests

Dear teacher, the following 12 criteria, in Likert Scale, in the table and other four open-ended questions are asked to obtain information that helps to improve the pre-test and the post-test that are to be used for a PhD study. Based on your knowledge of the elements of a good test, please read each statement and put a tick (✓) after each. **1** = **strongly disagree**, **2** = **Disagree**, **3** = **neutral, 4** = **Agree** and **5** = **strongly agree**. Please feel free to state what you feel for questions 13-15.

Thank you in advance!

No	Criterion	Tests	1	2	3	4	5
1	Reading passages of the test are short.	Test 1					
		Test 2					
2	Reading passages of the test are easy.	Test 1					
		Test 2					
3	Reading passages of the test are free of culture bias.	Test 1					
		Test 2					
4	Reading passages of the test are appropriate for the grade level.	Test 1					
		Test 2					
5	Formats of the test are familiar and appropriate.	Test 1					
		Test 2					
6	Items of the test are well designed.	Test 1					
		Test 2					
7	The test is comprehensible in terms of aspects of reading ability	Test 1					
		Test 2					
8	Items of the test are presented from easy to complex.	Test 1					
		Test 2					
9	Items of the test are not ambiguous.	Test 1					
		Test 2					
10	Directions of the test are clear.	Test 1					
		Test 2					
11	Time allowed for the test is ample.	Test 1					
		Test 2					
12	The test needs improvement.	Test 1					
		Test 2					

If you have any suggestion you want to forward, please specify below.

13. Do you have any comment on Test 1?

_____

_____

14. Do you have any comment on Test 2?

_____

_____

15. Do you have any overall comment about the format and the appropriateness of the tests?

_____

_____

16. If you have any other comment, please specify.

_____

_____

Appendix E2: Appropriateness of destructors of multiple choice items

Pre-test destructor evaluation of multiple choice items of the main study

Item No	Correct Answer	Number of students who selected each of the destructors					Total Students
		A	**B**	**C**	**D**	**NS**	
11	C	19	17	*49	14	1	100
12	C	21	19	*37	22	1	100
13	B	28	*36	16	20	0	100
14	C	39	10	*22	28	1	100
15	A	*16	17	18	47	2	100
16	D	20	46	21	*12	1	100
17	C	58	14	*5	23	0	100
18	A	*76	6	7	11	0	100
19	B	9	*52	27	12	0	100
20	C	25	10	*49	14	2	100
21	D	12	10	23	*53	2	100
22	D	29	26	24	*21	0	100
23	A	*27	21	12	39	1	100
24	B	35	*15	6	43	1	100
25	A	*51	27	10	12	0	100
Total		465	326	326	371	12	**1500**

* Indicates number of students who answered correctly.

NS means Number of students who did not select any destructor of the item.

Post-test destructor evaluation of multiple choice items of the main study

Item No	Correct Answer	Number of students who selected each of the destructors					Total Students
		A	**B**	**C**	**D**	**NS**	
6	D	5	30	20	*45	0	100
7	C	31	16	*37	16	0	100
8	A	*29	23	23	25	0	100
9	B	15	*37	26	20	2	100
10	D	22	31	22	*25	0	100
11	B	29	*17	24	29	1	100
12	A	*60	18	13	9	0	100
13	D	9	8	49	*34	0	100
14	C	13	11	*65	11	0	100
15	B	35	*26	16	22	1	100
16	B	34	*26	23	16	1	100
17	C	14	9	*72	5	0	100
18	A	*41	20	32	7	0	100
19	A	*60	20	7	13	0	100
20	D	25	28	27	*20	0	100
Total		422	320	456	297	5	**1500**

* Indicates number of students who answered correctly.

NS means Number of students who did not select any destructor of the item.

Appendix E3: Item Analysis

Difficulty Level (DfI) and Discrimination Index (DI) of 30 Questions of Pre-test of Pilot Study answered by 70 students (N = 70)

Item		**Score Group**		**Item Index**	
Number	**Answered by (Students)**	**Upper (n=35)**	**Lower (n=35)**	DfI	DI
1	**36**	**26**	**10**	**0.51**	**0.44**
2	**16**	**14**	**2**	**0.23**	**0.75**
3	**13**	**11**	**2**	**0.19**	**0.69**
4	**2**	**2**	**0**	**0.03**	**1.00**
5	**5**	**5**	**0**	**0.07**	**1.00**
6	**23**	**12**	**11**	**0.33**	**0.09**
7	**13**	**8**	**5**	**0.19**	**0.23**
8	**18**	**11**	**7**	**0.26**	**0.22**
9	**35**	**19**	**16**	**0.50**	**0.09**
10	**16**	**12**	**4**	**0.23**	**0.50**
11	**20**	**13**	**7**	**0.27**	**0.32**
12	**35**	**19**	**16**	**0.50**	**0.09**
13	**16**	**9**	**7**	**0.23**	**0.13**
14	**30**	**20**	**10**	**0.43**	**0.33**
15	**43**	**30**	**13**	**0.47**	**0.21**
16	**10**	**4**	**6**	**0.14**	**-0.20**
17	**55**	**34**	**21**	**0.79**	**0.24**
18	**34**	**24**	**10**	**0.49**	**0.59**
19	**37**	**24**	**13**	**0.53**	**0.30**
20	**25**	**15**	**10**	**0.38**	**0.20**
21	**14**	**8**	**6**	**0.20**	**0.14**
22	**20**	**10**	**10**	**0.29**	**0.00**
23	**20**	**14**	**6**	**0.29**	**0.40**
24	**20**	**9**	**11**	**0.29**	**-0.10**
25	**27**	**13**	**14**	**0.39**	**-0.04**
26	**35**	**27**	**8**	**0.50**	**0.54**
27	**18**	**16**	**2**	**0.26**	**0.78**
28	**38**	**27**	**11**	**0.54**	**0.42**
29	**41**	**31**	**10**	**0.59**	**0.51**
30	**70**	**35**	**35**	**1.00**	**0.00**

Appendix E4: Difficulty Level (DfI) and Discrimination Index (DI) of 30 Questions of Post-test of Pilot Study answered by 70 students (N = 70)

Item		**Score Group**		**Item Analysis**	
Number	**Answered by (Students)**	**Upper (n=35)**	**Lower (n=35)**	FI	DI
1	**1**	**1**	**0**	**0.01**	**1.00**
2	**15**	**7**	**8**	**0.21**	**-0.06**
3	**3**	**0**	**3**	**0.04**	**-1.00**
4	**6**	**2**	**4**	**0.09**	**-0.33**
5	**2**	**1**	**1**	**0.03**	**0.00**
6	**20**	**11**	**9**	**0.29**	**0.10**
7	**43**	**22**	**21**	**0.61**	**0.02**
8	**14**	**7**	**7**	**0.20**	**0.00**
9	**17**	**8**	**9**	**0.24**	**-0.06**
10	**26**	**13**	**13**	**0.37**	**0.00**
11	**24**	**12**	**12**	**0.34**	**0.00**
12	**17**	**8**	**9**	**0.24**	**0.06**
13	**16**	**10**	**6**	**0.23**	**0.25**
14	**39**	**18**	**21**	**0.56**	**-0.08**
15	**28**	**15**	**13**	**0.40**	**0.07**
16	**57**	**28**	**29**	**0.81**	**-0.02**
17	**49**	**27**	**22**	**0.70**	**0.10**
18	**26**	**11**	**15**	**0.37**	**-0.15**
19	**46**	**21**	**25**	**0.66**	**-0.09**
20	**19**	**9**	**10**	**0.27**	**-0.05**
21	**24**	**13**	**11**	**0.34**	**0.08**
22	**6**	**2**	**4**	**0.09**	**0.33**
23	**30**	**16**	**14**	**0.43**	**0.07**
24	**33**	**16**	**17**	**0.48**	**-0.03**
25	**8**	**6**	**2**	**0.47**	**0.50**
26	**27**	**12**	**15**	**0.11**	**-0.11**
27	**22**	**10**	**12**	**0.39**	**-0.09**
28	**21**	**12**	**9**	**0.31**	**0.14**
29	**18**	**7**	**11**	**0.30**	**-0.22**
30	**30**	**15**	**15**	**0.26**	**1.00**

Appendix E5: DfI and DI of pre-test of main study before (a) and after (b) five items were rejected prior to data analysis.

a. Index of 30 items			
Item No.	**Index**		**Remarks**
	DfI	**DI**	
1	0.11	0.22	
2	0.35	0.70	
3	0.09	0.11	
4	0.26	0.52	
5	0.07	0.15	
6	0.56	-0.15	rejected
7	0.35	0.11	
8	0.65	0.26	
9	0.70	0.30	
10	0.48	0.30	
11	0.52	0.30	
12	0.44	0.15	
13	0.39	0.33	
14	0.22	0.07	
15	0.20	0.04	
16	0.04	0.00	rejected
17	0.07	0.00	rejected
18	0.66	0.48	
19	0.46	0.56	
20	0.46	0.63	
21	0.46	0.63	
22	0.26	0.07	
23	0.24	-0.04	rejected
24	0.17	-0.04	rejected
25	0.48	0.07	
26	0.30	0.37	
27	0.41	0.59	
28	0.57	0.78	
29	0.50	0.78	
30	0.43	0.70	

b. Index of 25 items		
S. No.	**Index**	
	DfI	**DI**
1	0.11	0.22
2	0.37	0.52
3	0.09	0.11
4	0.26	0.52
5	0.07	0.15
6	0.37	0.15
7	0.65	0.26
8	0.56	0.30
9	0.48	0.22
10	0.50	0.33
11	0.39	0.15
12	0.41	0.37
13	0.22	0.07
14	0.20	0.04
15	0.70	0.52
16	0.54	0.56
17	0.44	0.59
18	0.52	0.74
19	0.26	0.07
20	0.48	0.07
21	0.35	0.26
22	0.37	0.59
23	0.57	0.78
24	0.52	0.81
25	0.35	0.48

Appendix E6: DfI and DI of post-test of main study before (c) and after (d) five items were rejected prior to data analysis.

c. Index of 30 items			
Item No.	**Index**		**Remarks**
	DfI	**DI**	
1	0.28	0.56	
2	0.20	0.41	
3	0.09	0.19	
4	0.19	0.37	
5	0.19	0.37	
6	0.78	0.30	
7	0.17	0.04	rejected
8	0.26	0.07	rejected
9	0.43	0.26	
10	0.61	0.56	
11	0.46	0.41	
12	0.28	0.41	
13	0.43	0.48	
14	0.46	0.33	
15	0.33	0.44	
16	0.13	0.11	rejected
17	0.46	0.33	
18	0.35	0.48	
19	0.61	0.70	
20	0.20	0.19	
21	0.11	0.00	rejected
22	0.65	0.56	
23	0.43	0.78	
24	0.56	0.59	
25	0.17	0.19	rejected
26	0.17	0.19	
27	0.35	0.41	
28	0.35	0.41	
29	0.30	0.52	
30	0.52	0.81	

d. Index of 25 items		
S. No.	**Index**	
	DfI	**DI**
1	0.23	0.52
2	0.20	0.41
3	0.11	0.22
4	0.19	0.37
5	0.20	0.41
6	0.78	0.23
7	0.50	0.19
8	0.57	0.56
9	0.44	0.37
10	0.31	0.56
11	0.28	0.19
12	0.33	0.44
13	0.28	0.41
14	0.52	0.23
15	0.33	0.44
16	0.61	0.70
17	0.24	0.23
18	0.70	0.48
19	0.41	0.74
20	0.59	0.59
21	0.23	0.22
22	0.39	0.56
23	0.43	0.48
24	0.37	0.44
25	0.54	0.85

Appendix F: Tests of Normality

Appendix F1: Normality tests of main study

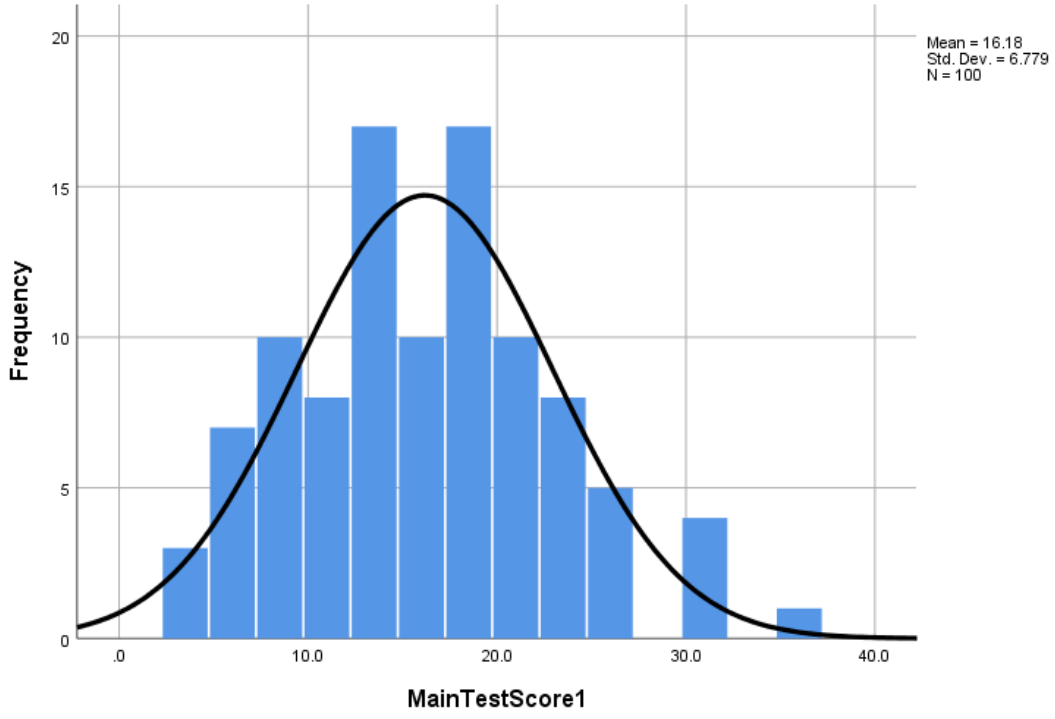
Appendix F1a: Normality test of **pre-test** of main study

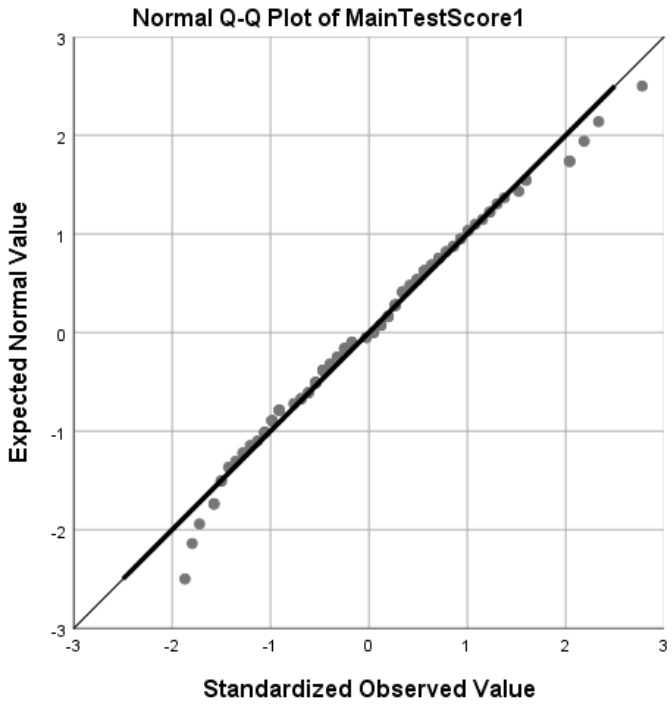
Tests of Normality

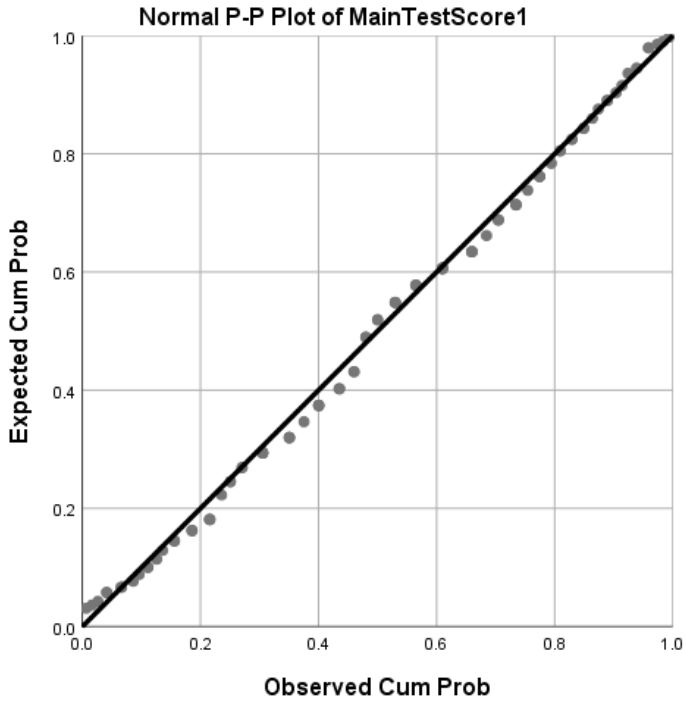
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Group	Statistic	df	Sig.	Statistic	df	Sig.
MainTestScore1	Experimental	.069	50	.200*	.973	50	.311
	Control	.064	50	.200*	.986	50	.795

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction




Normal Q-Q Plot of MainTestScore1
Expected Normal Value
Standardized Observed Value
3
2
1
0
-1
-2
-3


Normal P-P Plot of MainTestScore1
Expected Cum Prob
Observed Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0

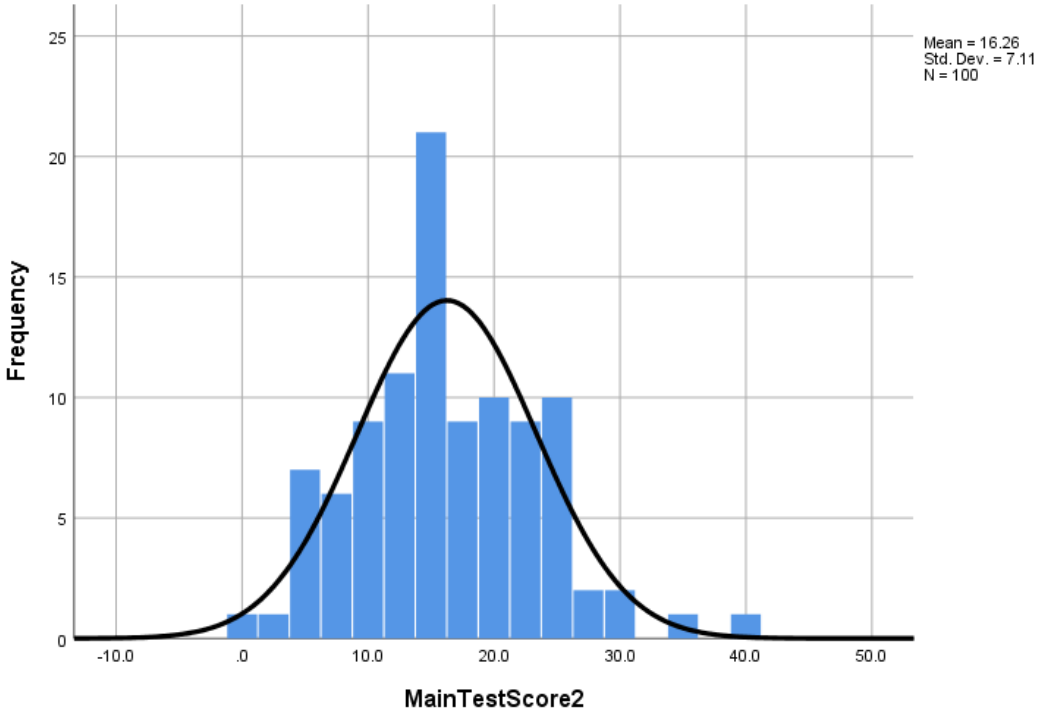
Appendix F1b: Normality test of **post-test** of main study

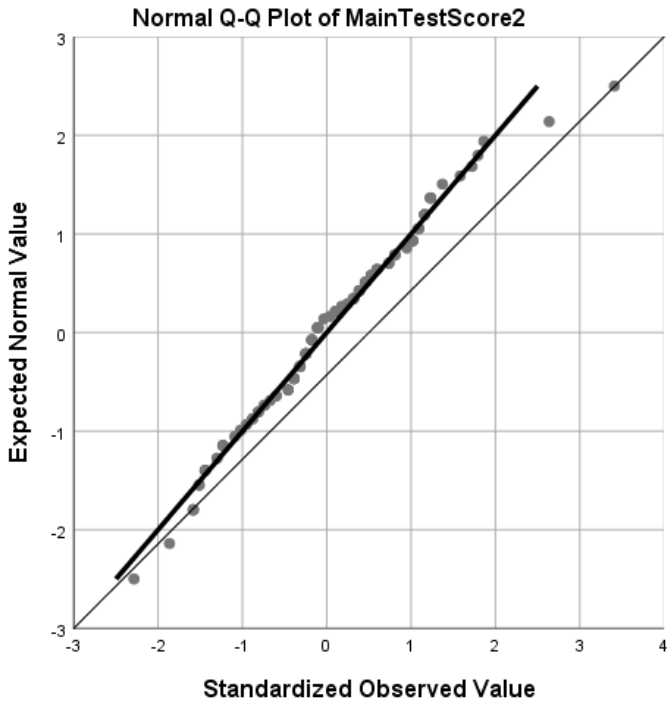
Tests of Normality

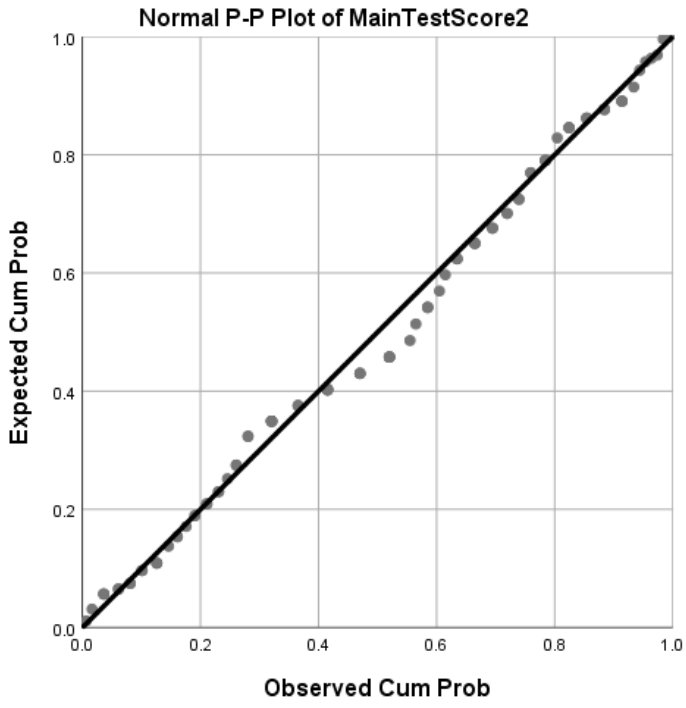
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Group	Statistic	df	Sig.	Statistic	df	Sig.
MainTestScore2	Experimental	.108	50	.200*	.966	50	.153
	Control	.080	50	.200*	.982	50	.659

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction




Normal Q-Q Plot of MainTestScore2
Expected Normal Value
Standardized Observed Value
3
2
1
0
-1
-2
-3
-3
-2
-1
0
1
2
3
4

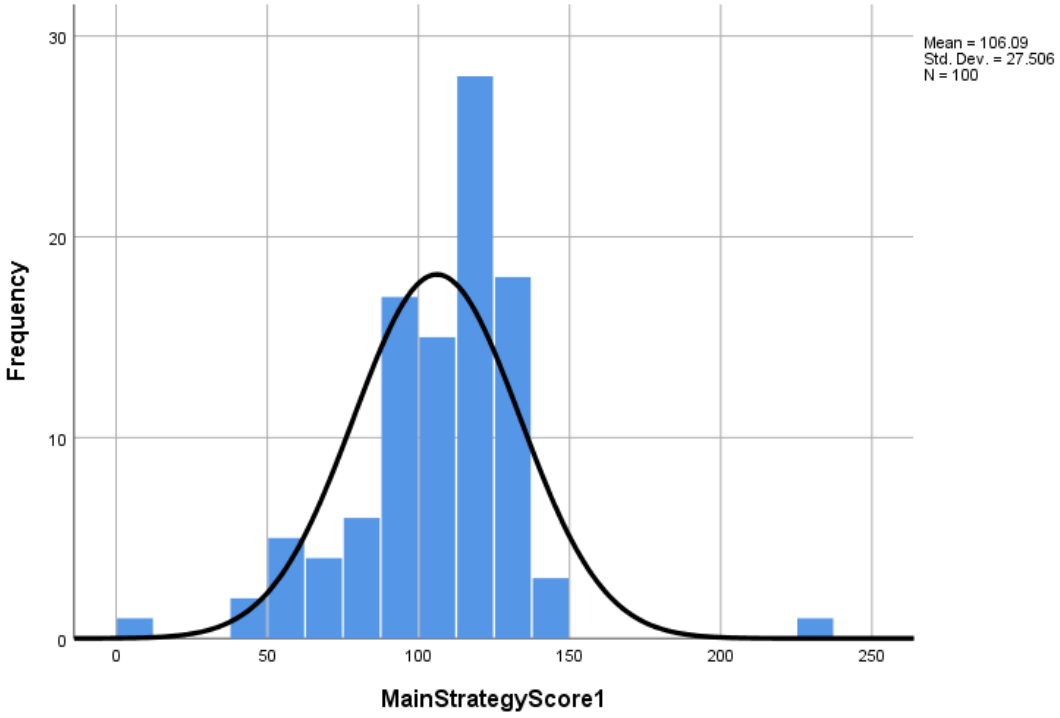

Normal P-P Plot of MainTestScore2
Expected Cum Prob
Observed Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0

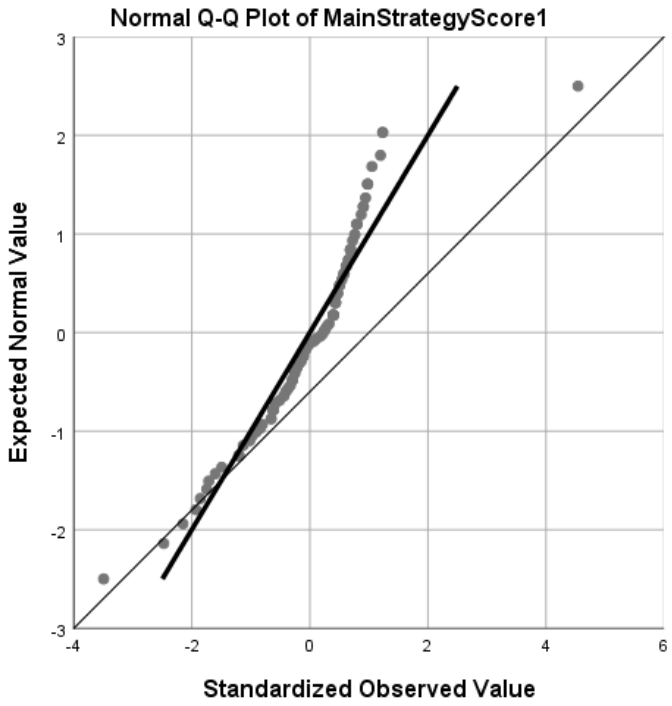
Appendix F1c: Normality tests of **1st round self-response** of strategy awareness of main study

Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Group	Statistic	df	Sig.	Statistic	df	Sig.
MainStrategyScore1	Experimental	.128	50	.039	.893	50	.000
	Control	.202	50	.000	.820	50	.000

a. Lilliefors Significance Correction




Normal Q-Q Plot of MainStrategyScore1
Expected Normal Value
Standardized Observed Value
3
2
1
0
-1
-2
-3
-4
-2
0
2
4
6

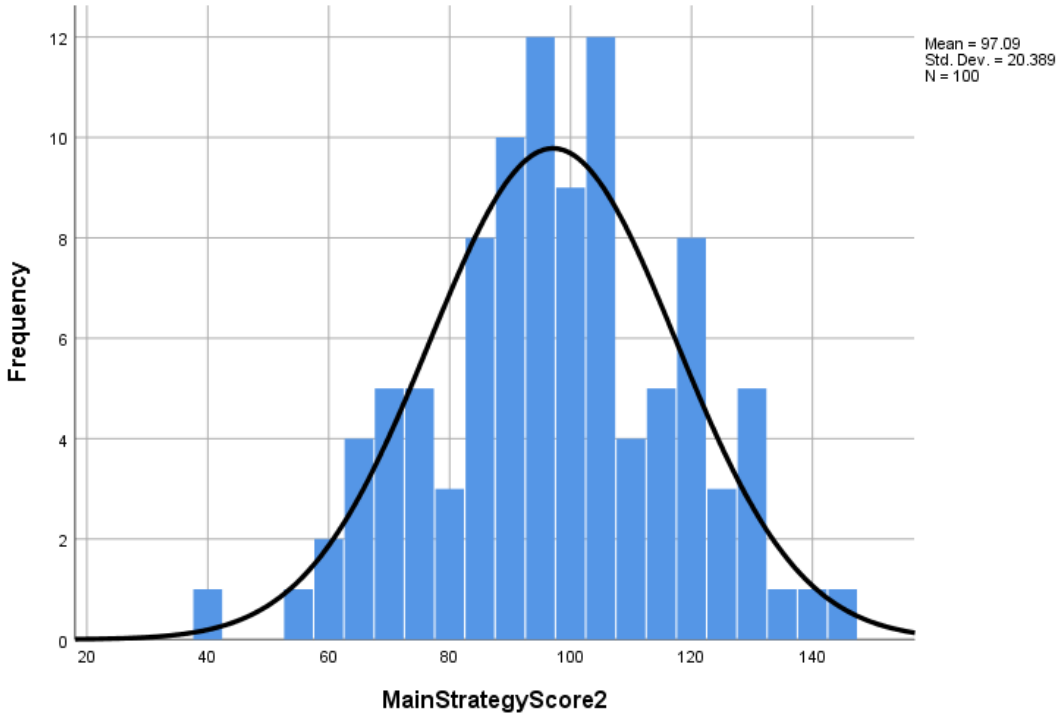
Appendix F1d: Normality test of **2nd round self-response** of strategy awareness of main study

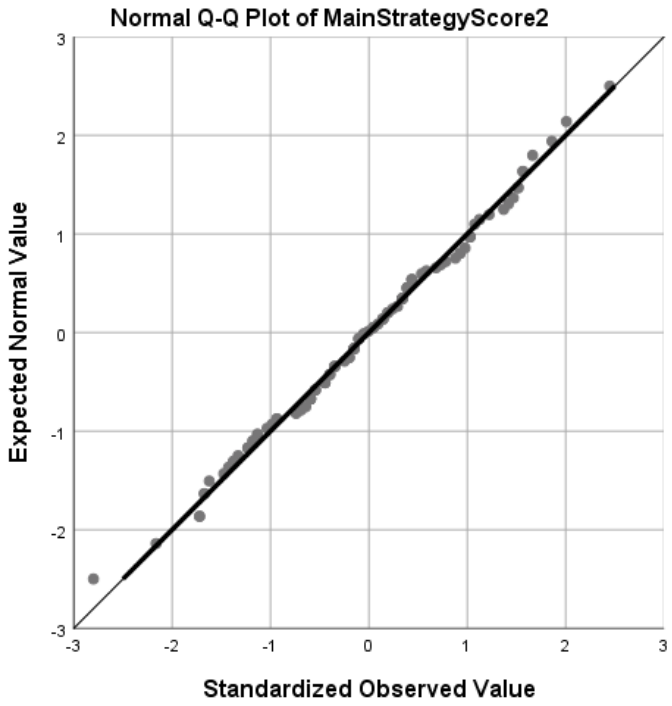
Tests of Normality

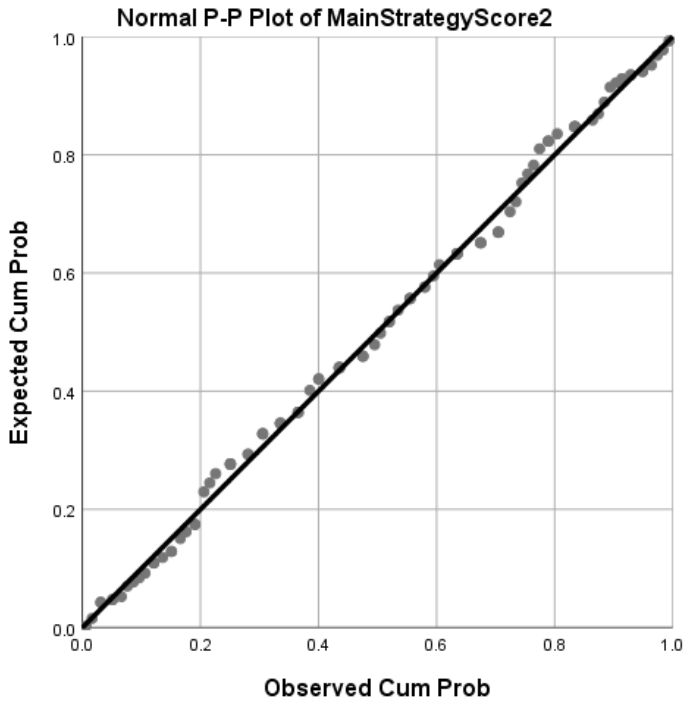
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Group	Statistic	df	Sig.	Statistic	df	Sig.
MainStrategyScore2	Experimental	.090	50	.200*	.979	50	.522
	Control	.113	50	.134	.973	50	.312

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction




Normal Q-Q Plot of MainStrategyScore2
Expected Normal Value
Standardized Observed Value
3
2
1
0
-1
-2
-3


Normal P-P Plot of MainStrategyScore2
Expected Cum Prob
Observed Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0

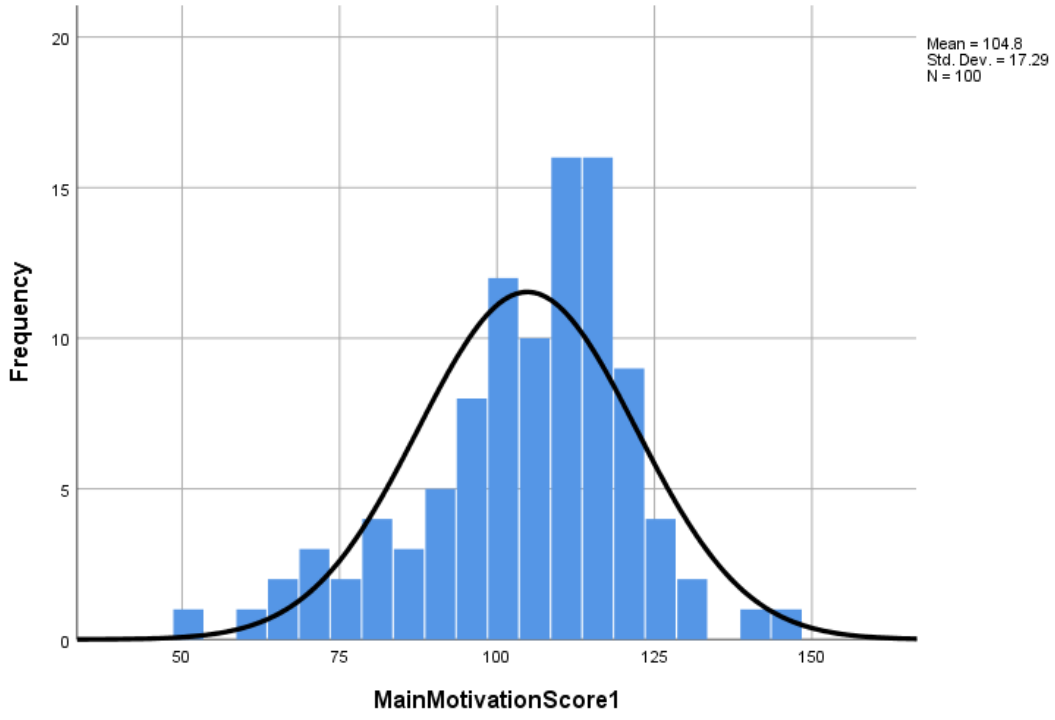
Appendix F1e: Normality test of **1st round self-response** of reading motivation of main study

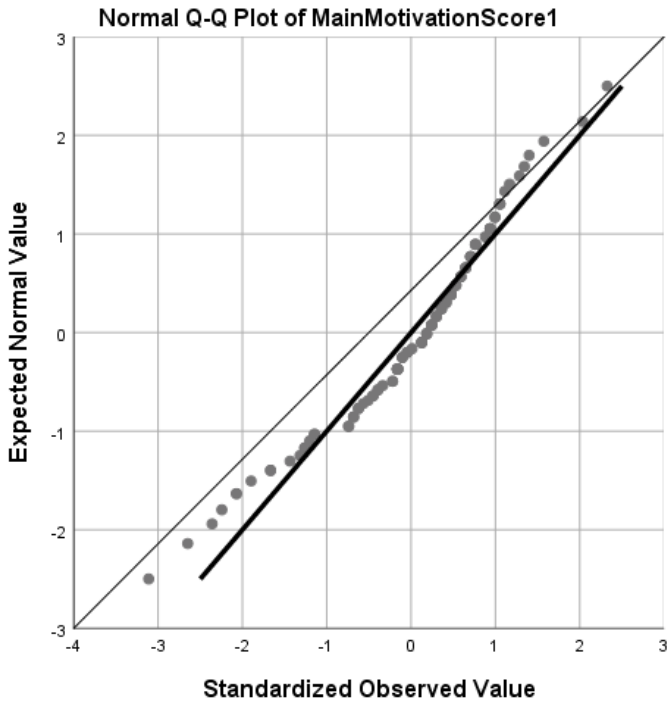
Tests of Normality

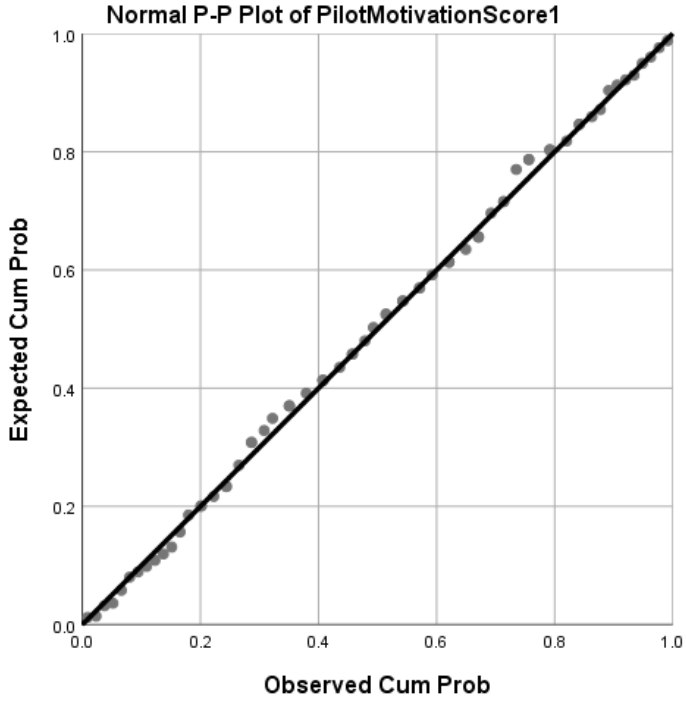
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Group	Statistic	df	Sig.	Statistic	df	Sig.
MainMotivationScore1	Experimental	.107	50	.200*	.965	50	.150
	Control	.120	50	.069	.939	50	.013

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction




Normal Q-Q Plot of MainMotivationScore1
Expected Normal Value
Standardized Observed Value
3
2
1
0
-1
-2
-3
-4
-3
-2
-1
0
1
2
3

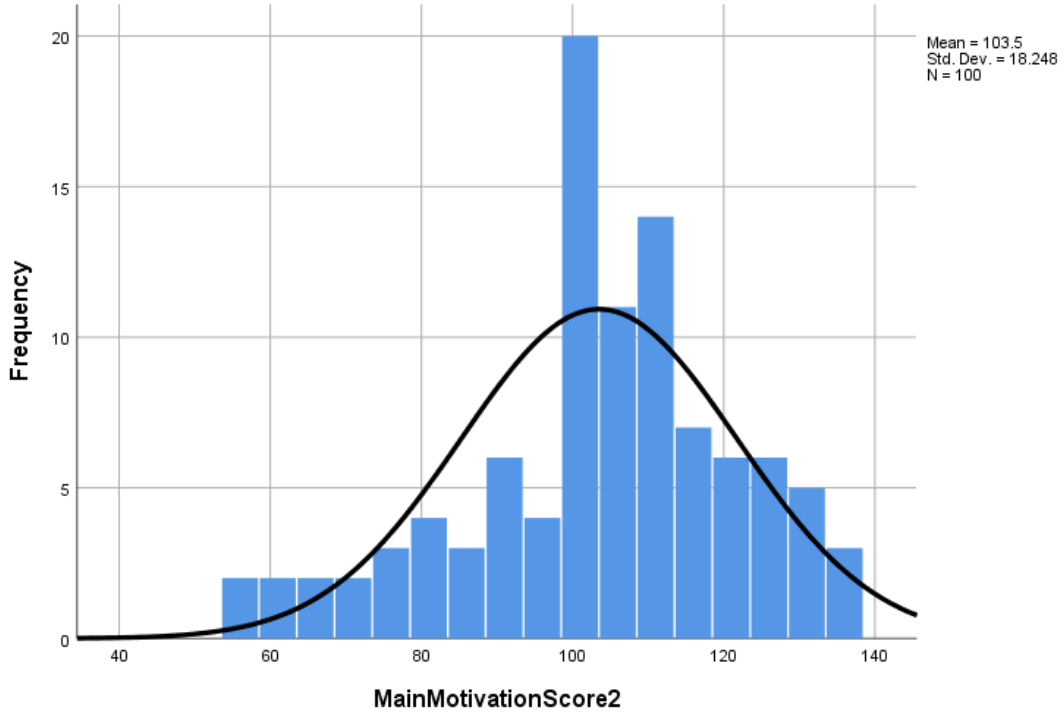

Normal P-P Plot of PilotMotivationScore1
Expected Cum Prob
Observed Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0

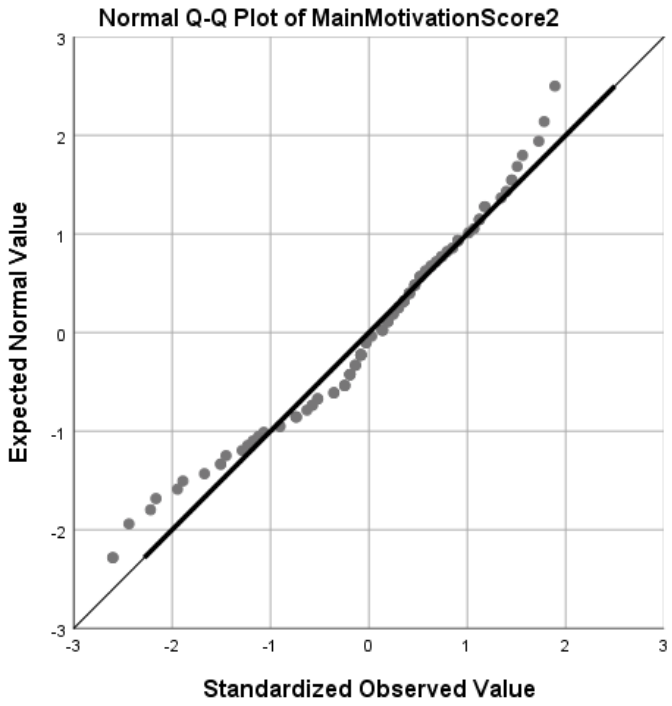
Appendix F1f: Normality test of **2nd round self-response** of reading motivation of main study

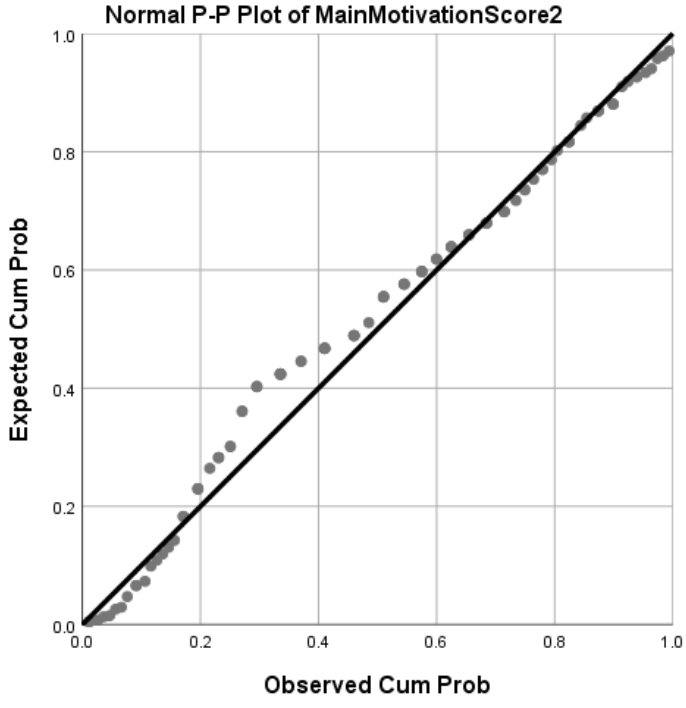
Tests of Normality

		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Group	Statistic	df	Sig.	Statistic	df	Sig.
MainMotivationScore2	Experimental	.113	50	.152	.959	50	.079
	Control	.134	50	.025	.962	50	.104

a. Lilliefors Significance Correction




Normal Q-Q Plot of MainMotivationScore2
Expected Normal Value
Standardized Observed Value
3
2
1
0
-1
-2
-3


Normal P-P Plot of MainMotivationScore2
Expected Cum Prob
Observed Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0

Appendix F2: Tests of Normality of Pilot Study

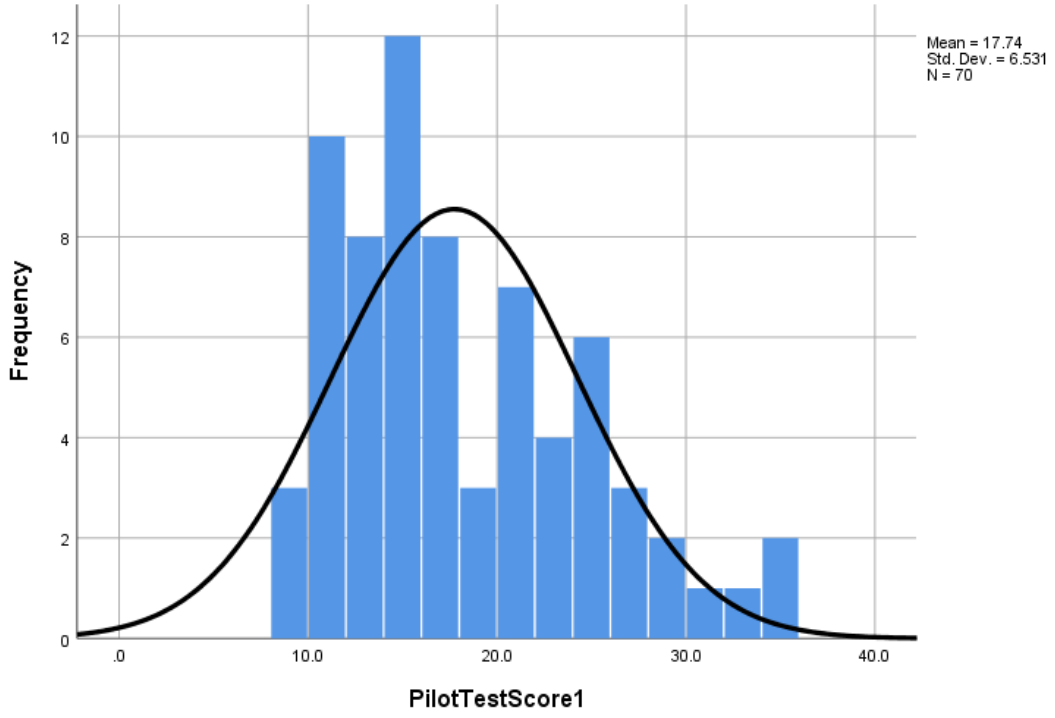
Appendix F2a: Normality test of **pre-test** of pilot study

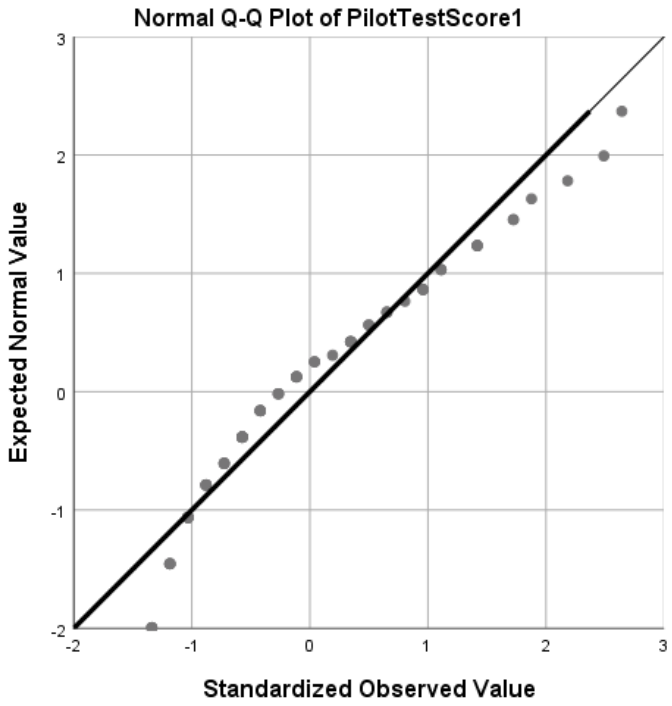
Tests of Normality

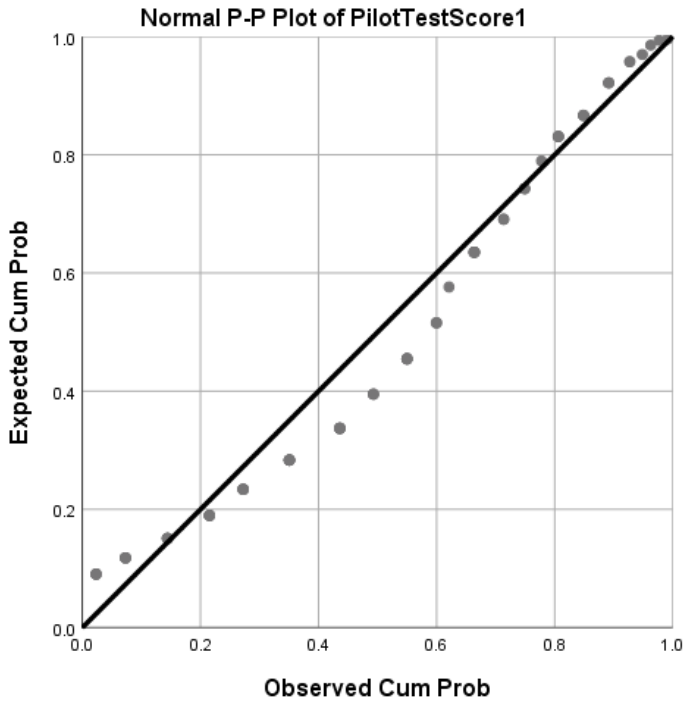
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Group	Statistic	df	Sig.	Statistic	df	Sig.
PilotTestScore1	Experimental	.163	50	.002	.918	50	.002
	Control	.149	20	.200*	.944	20	.283

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction




Normal Q-Q Plot of PilotTestScore1
Expected Normal Value
Standardized Observed Value
3
2
1
0
-1
-2
-2
-1
0
1
2
3


Normal P-P Plot of PilotTestScore1
Expected Cum Prob
Observed Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0
0.0
0.2
0.4
0.6
0.8
1.0

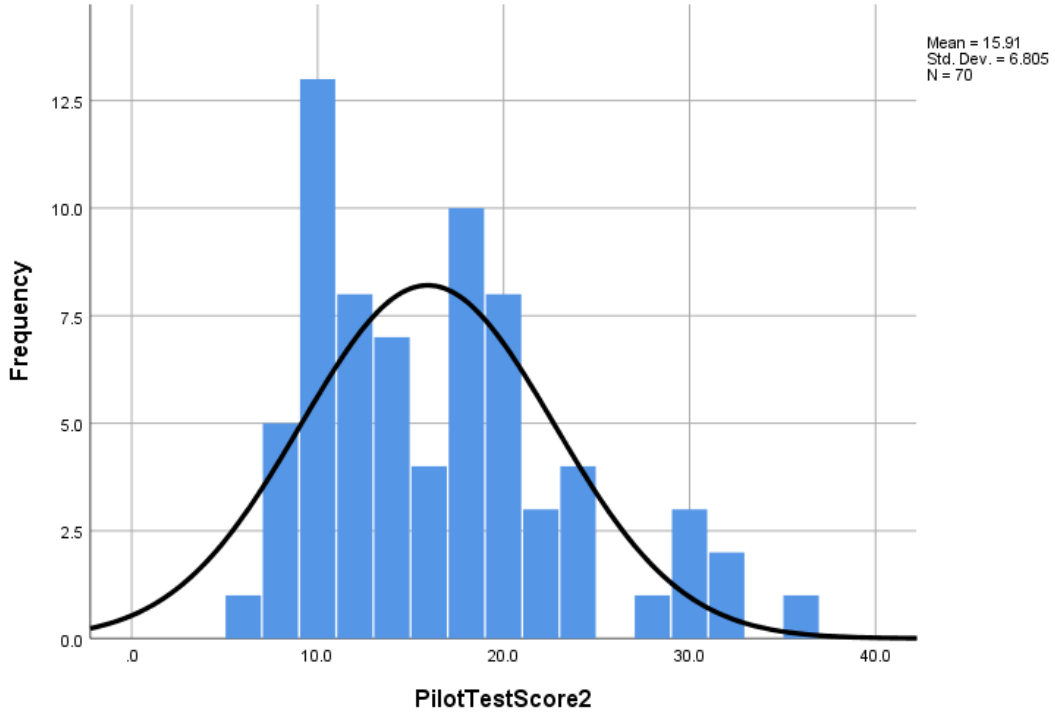
Appendix F2b: Normality test of **post-test** of pilot study

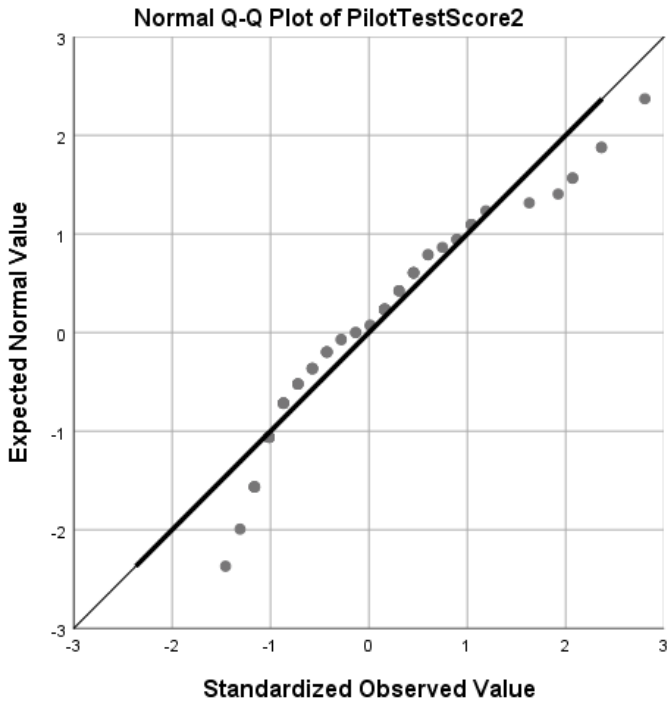
Tests of Normality

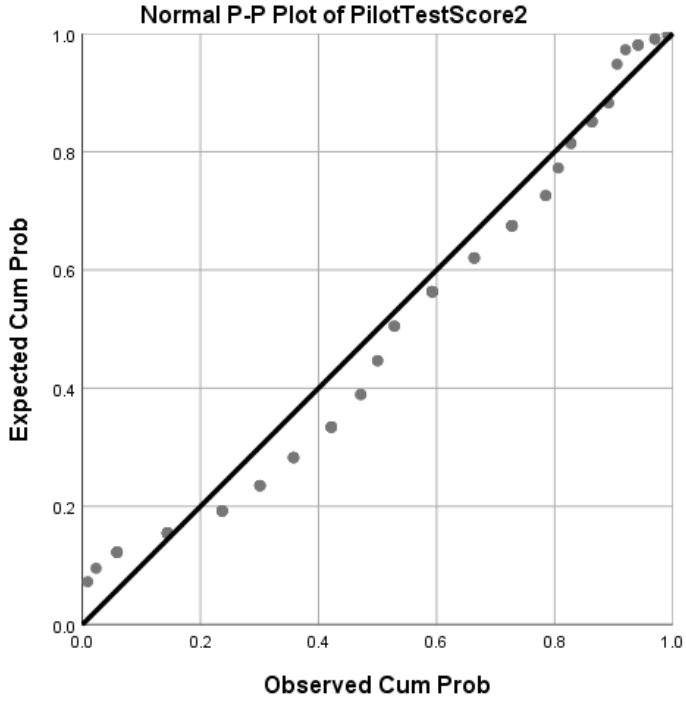
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Group	Statistic	df	Sig.	Statistic	df	Sig.
PilotTestScore2	Experimental	.130	50	.033	.914	50	.001
	Control	.141	20	.200*	.930	20	.154

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction




Normal Q-Q Plot of PilotTestScore2
Expected Normal Value
Standardized Observed Value
3
2
1
0
-1
-2
-3


Normal P-P Plot of PilotTestScore2
Expected Cum Prob
Observed Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0

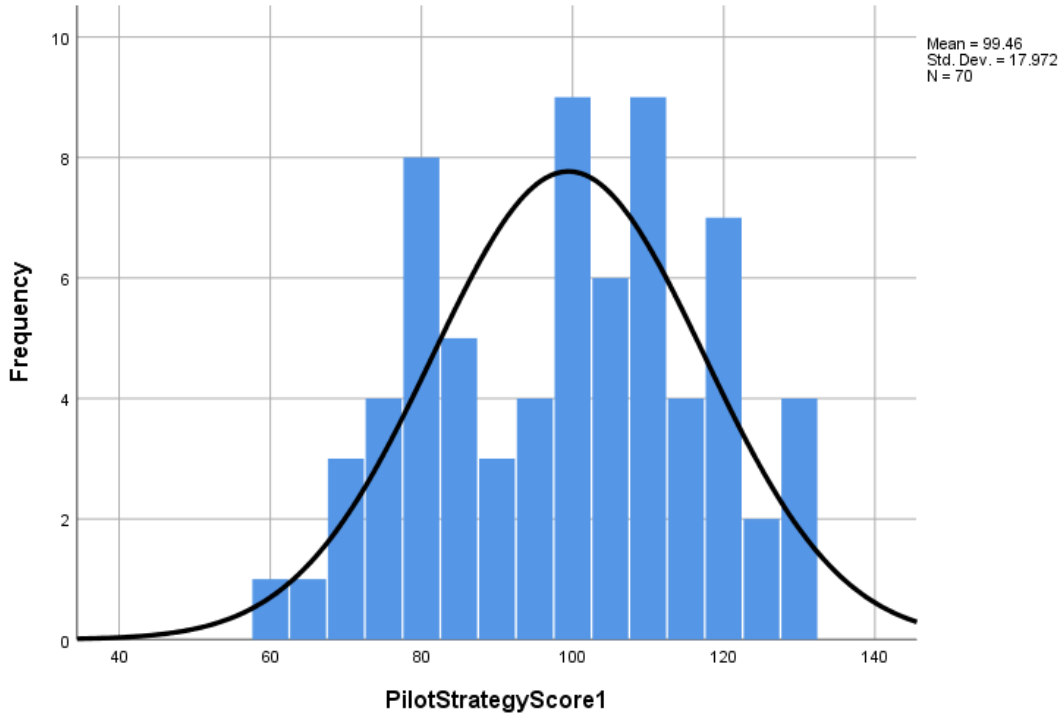
Appendix F2c: Normality test of **1st round strategy awareness** of pilot study

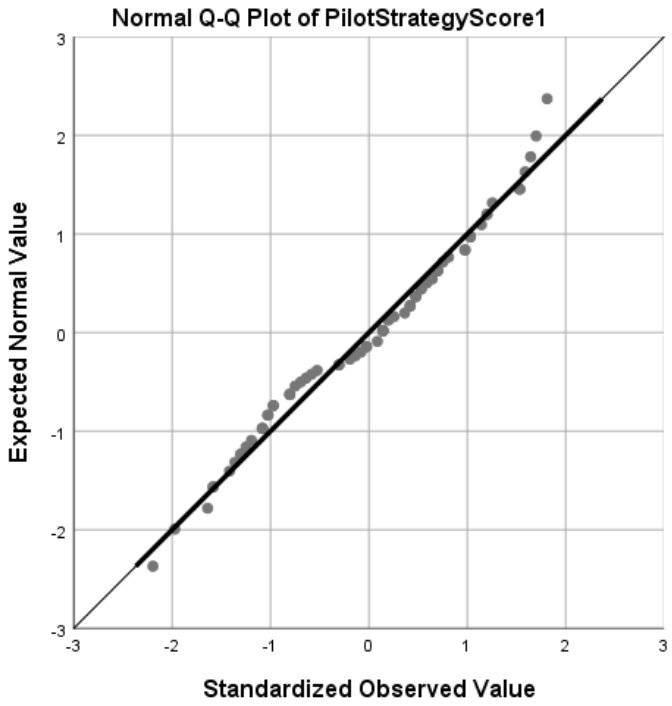
Tests of Normality

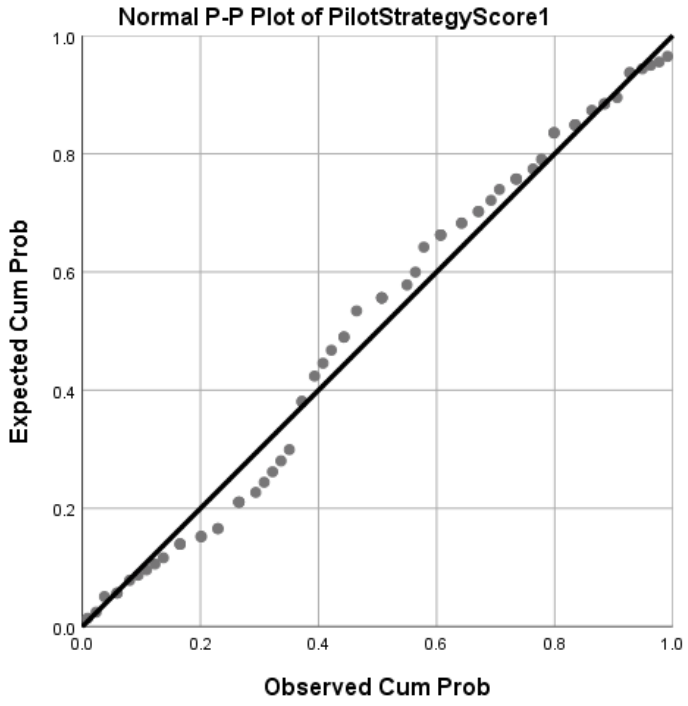
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Group	Statistic	df	Sig.	Statistic	df	Sig.
PilotStrategyScore1	Experimental	.103	50	.200*	.966	50	.161
	Control	.091	20	.200*	.978	20	.903

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction




Normal Q-Q Plot of PilotStrategyScore1
Expected Normal Value
Standardized Observed Value
3
2
1
0
-1
-2
-3


Normal P-P Plot of PilotStrategyScore1
Expected Cum Prob
Observed Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0

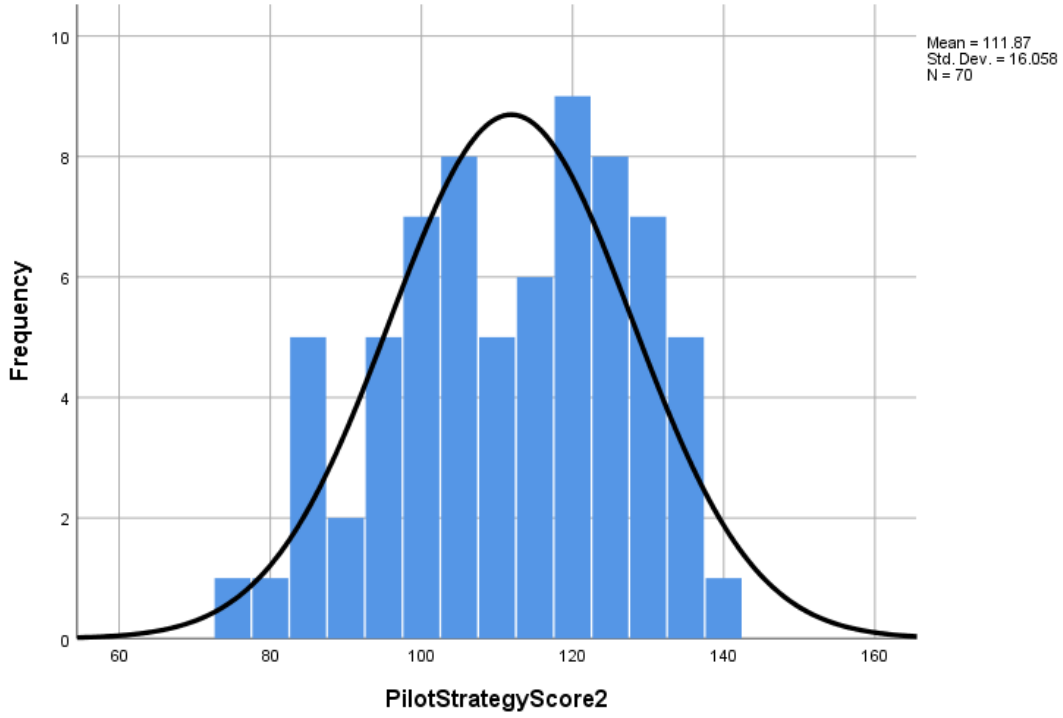
Appendix F2d: Normality test of **2nd round strategy awareness** of pilot study

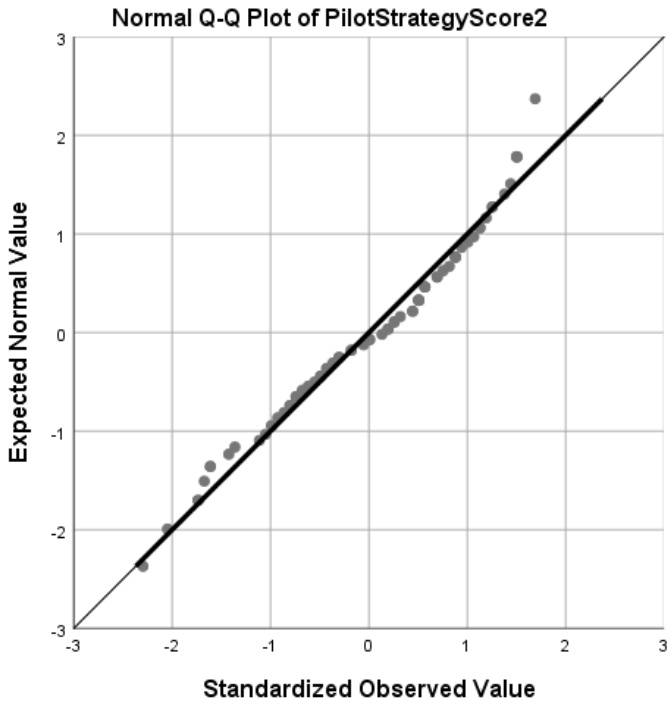
Tests of Normality

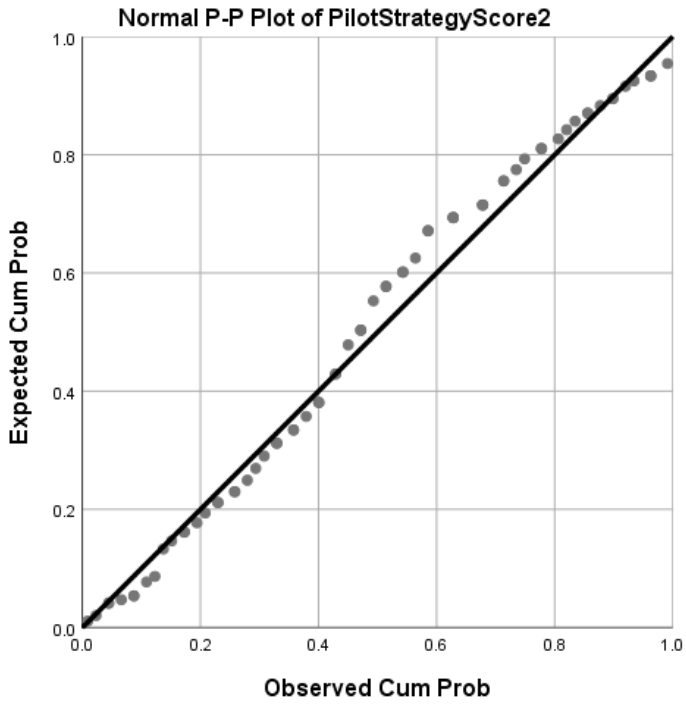
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Group	Statistic	df	Sig.	Statistic	df	Sig.
PilotStrategyScore2	Experimental	.084	50	.200*	.973	50	.316
	Control	.182	20	.083	.944	20	.287

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction




Normal Q-Q Plot of PilotStrategyScore2
Expected Normal Value
Standardized Observed Value
3
2
1
0
-1
-2
-3


Normal P-P Plot of PilotStrategyScore2
Expected Cum Prob
Observed Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0

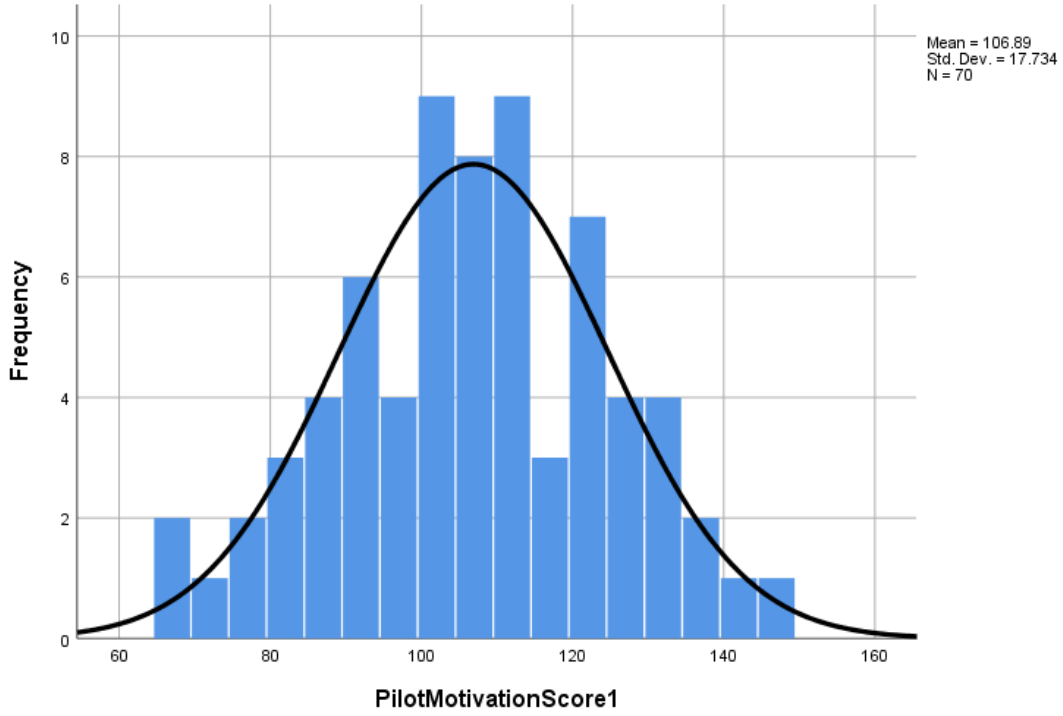
Appendix F2e: Normality test of **1st round reading motivation** of pilot study

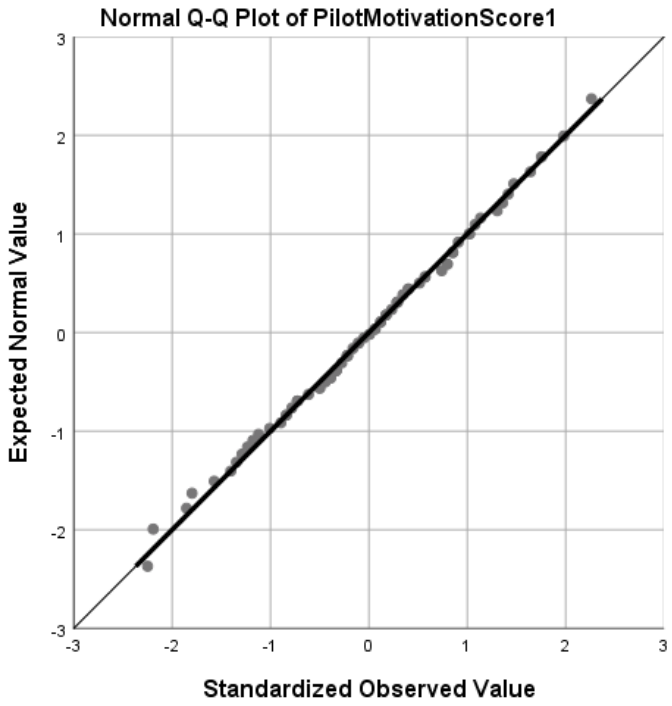
Tests of Normality

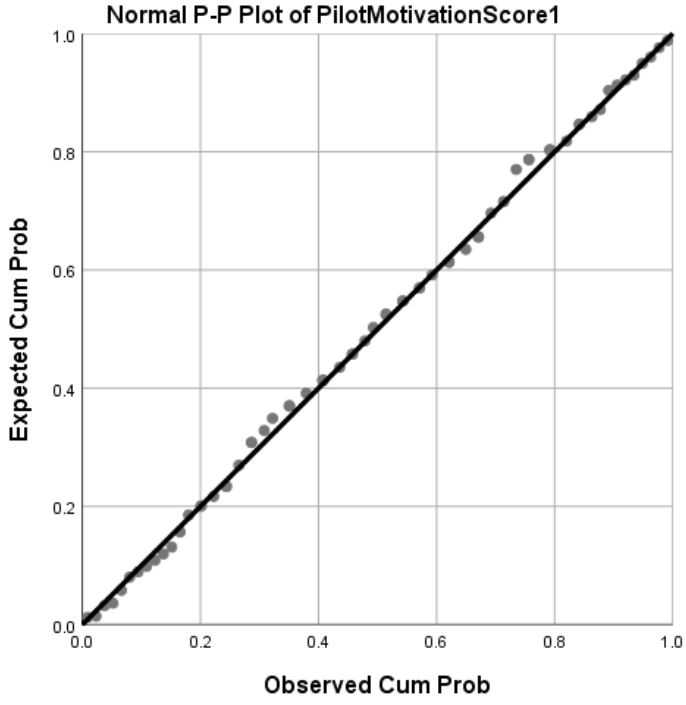
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Group	Statistic	df	Sig.	Statistic	df	Sig.
PilotMotivationScore1	Experimental	.062	50	.200*	.988	50	.898
	Control	.153	20	.200*	.971	20	.772

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction




Normal Q-Q Plot of PilotMotivationScore1
Expected Normal Value
Standardized Observed Value
3
2
1
0
-1
-2
-3


Normal P-P Plot of PilotMotivationScore1
Expected Cum Prob
Observed Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0

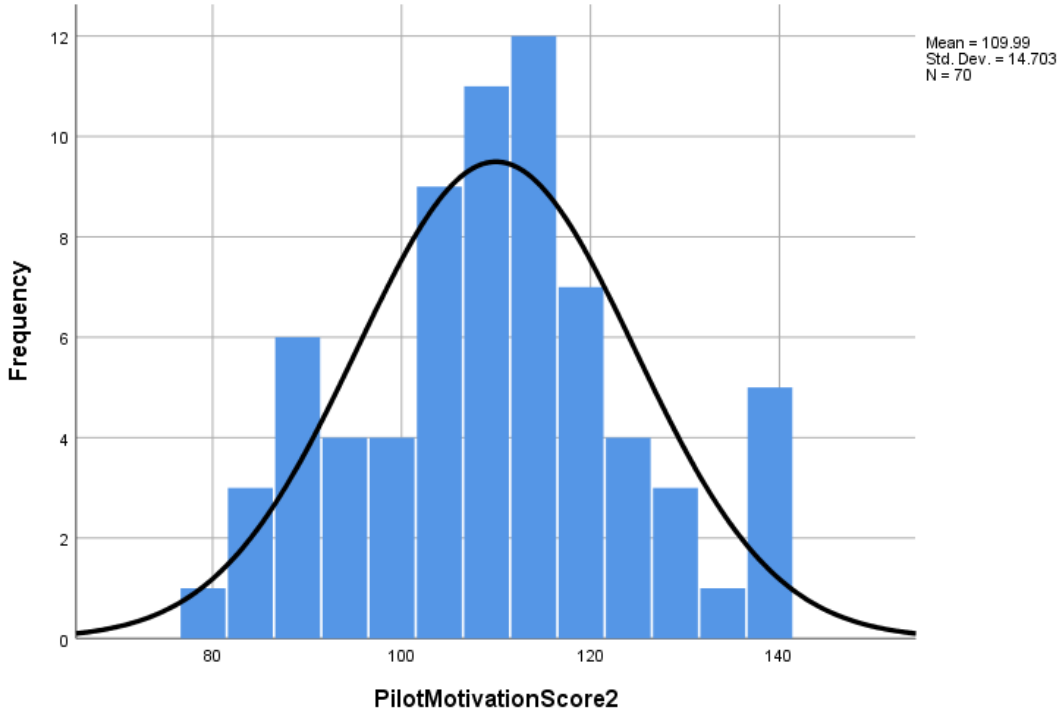
Appendix F2f: Normality test of **2nd round reading motivation** of pilot study

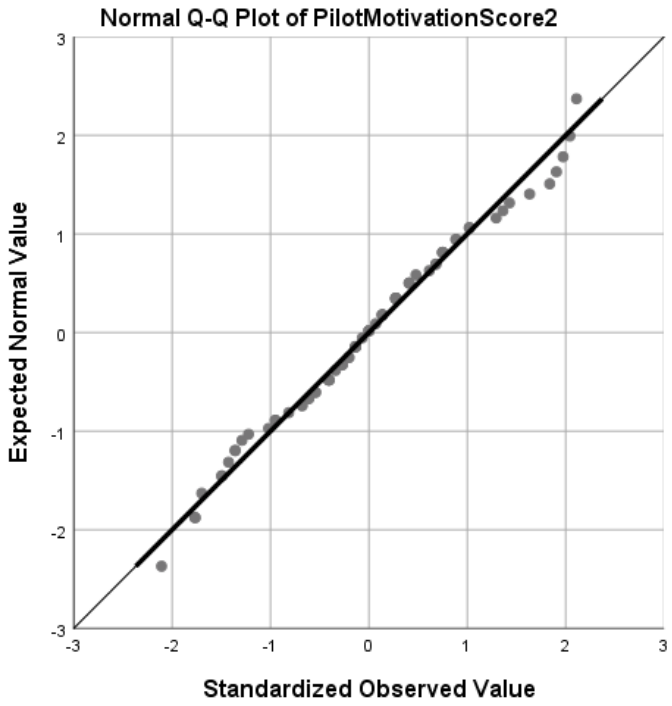
Tests of Normality

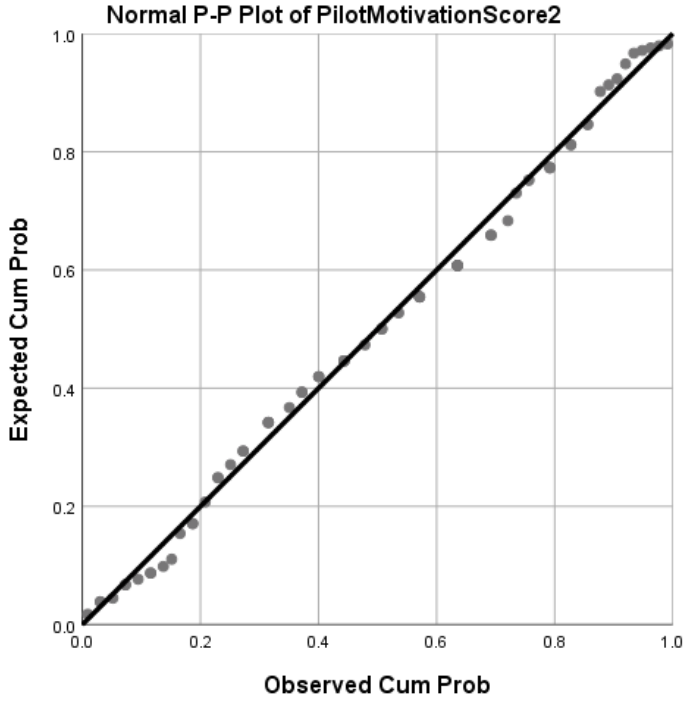
		Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Group	Statistic	df	Sig.	Statistic	df	Sig.
PilotMotivationScore2	Experimental	.086	50	.200*	.976	50	.387
	Control	.097	20	.200*	.972	20	.793

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction




Normal Q-Q Plot of PilotMotivationScore2
Expected Normal Value
Standardized Observed Value
3
2
1
0
-1
-2
-3


Normal P-P Plot of PilotMotivationScore2
Expected Cum Prob
Observed Cum Prob
1.0
0.8
0.6
0.4
0.2
0.0

Appendix G: Age and gender of Participants of Main Study

Code	Sex	Age	Code	Sex	Age
B01	M	16	**A51**	M	16
B02	M	16	**A52**	M	16
B03	M	15	**A53**	F	18
B04	M	15	**A54**	F	16
B05	M	16	**A55**	M	16
B06	M	16	**A56**	F	16
B07	M	17	**A57**	M	18
B08	F	15	**A58**	F	16
B09	F	15	**A59**	F	17
B10	F	16	**A60**	M	16
B11	M	15	**A61**	M	16
B12	F	16	**A62**	F	16
B13	M	15	**A63**	F	16
B14	F	16	**A64**	F	16
B15	F	15	**A65**	F	17
B16	M	16	**A66**	F	16
B17	F	16	**A67**	M	16
B18	F	15	**A68**	M	16
B19	F	17	**A69**	F	16
B20	F	17	**A70**	F	16
B21	F	15	**A71**	M	20
B22	F	17	**A72**	M	16
B23	F	16	**A73**	M	18
B24	F	16	**A74**	M	16
B25	F	16	**A75**	M	16
B26	F	18	**A76**	F	17
B27	**F**	16	**A77**	F	17
B28	M	15	**A78**	F	16
B29	M	17	**A79**	M	16
B30	F	18	**A80**	M	16
B31	M	16	**A81**	M	16
B32	M	16	**A82**	F	18
B33	M	16	**A83**	M	16
B34	F	17	**A84**	M	16
B35	M	17	**A85**	F	17
B36	M	17	**A86**	F	17
B37	F	17	**A87**	F	16
B38	F	17	**A88**	F	15
B39	F	15	**A89**	F	17
B40	M	18	**A90**	F	16
B41	F	17	**A91**	M	16
B42	F	16	**A92**	M	16
B43	M	17	**A93**	F	16
B44	F	16	**A94**	F	15
B45	F	16	**A95**	F	17
B46	F	15	**A96**	F	16
B47	F	16	**A97**	M	16
B48	M	16	**A98**	M	16
B49	F	17	**A99**	M	16
B50	M	16	**A100**	F	20

Appendix H: Consent Form of the Research

እኔ የጥናቱ ተሳታፊ ተማሪ ---------- በሆሳዕና ከተማ የሌጦ 2ኛ ደረጃ ትምህርትቤት የዘጠነኛ ክፍል ተማሪ ስሆን በአዲስ አበባ ዩኒቨርሲቲ፤ የሂደማኒቲስ፣ የቋንቋዎች ጥናት፣ የጆርናሊዝምና ኮሚኒኬሽን ኮሌጅ የእንግሊዝኛ ቋንቋና ሥነጽሑፍ ትምህርት ክፍል የፒ.ኤች.ዲ ተማሪ የሆነው አቶ ደነቀ ማዬቦ ለመመረቂያ ጽሑፉ ለሚሰራው ምርምር በሚከተሉት የጥናቱ ሂደት ላይ ለመሳተፍ ተስማምቻለሁ፡፡ ይኸውም ከ28/01/2015 ዓ.ም እስከ30/05/2015 ዓ.ም ባሉት ጊዜያት ውስጥ፡-

1. በሳምንት ሁለት ክፍለጊዜያት በእንግሊዝኛ ቋንቋ ትምህርት ክፍለጊዜ እንድማር የሚሰጠኝን የማንበብ ክሂል ተግባራት በመደበኛ የእንግሊዝኛ መምህሬ ለመማር
2. በአጥኝው የተዘጋጁ የአንብቦ መረዳት ችሎታዬን የሚለኩ ፈተናዎችን ለመፈተን እና የማንበንብ ግንዛቤዬንና የማንበብ ተነሳሽነቴን የሚለኩ የጽሑፍ መጠይቆችን ለመሙላት
3. ተመራማሪው ከፈተናዎቹና ከመጠይቆቹ የሚገኙ ውጤቶቹን ለመመረቂያ ጽሑፋቸው ስራ እንዲጠቀሙባቸው ተስማምቻለሁ፡፡ በዚህ ስምምነት ወቅት ከላይ የተጠቀሱት ጉዳዮች በተመራማሪው ተገልጸውልኝ አምኜበት በምርምሩ ለመሳተፍ በራሴ ፈቃድ ተስማምቻለሁ፡፡

በተመራማሪው በኩልም የግል ስሜም ሆነ ከላይ በተገለጹት መረጃ መሰብሰቢያዎች የማገኛቸው ውጤቶቹ በግል ስሜ ተጠቅሶ ሚስጥራዊነቱን በሚያባክን መልኩ ላይጠቀሙበት ቃል ተገብቶልኛል፡፡ ከዚህም ሌላ ፍላጎቴ ካልሆነ በምርምሩ መሀል ምንም ዓይነት ቅጣት ወይም ማስገደድ ሳይገጥመኝ ማቋረጥ እንደምችል ተገልጾልኛል፡፡ በተጨማሪም ይህን ስምምነት በሰጠሁበት ወቅት ከላይ ከተገለጹት ነጥቦች ሌላ ስለምርምሩ ሂደት ተጨማሪ ጥያቄ ካለኝ እንዳቀርብ በተመራማሪው በኩል እድል ተሰጥቶኝ ተገቢ ማብራሪያ አግኝቼ በምርምሩ ለመሳተፍ ያለማንም አስገዳጅነት በራሴ ፈቃድ ተስማምቻለሁ፡፡

የምርምሩ ተሳታፊ ተማሪ ስም…….. ፊርማ…….

የተመራማሪው ስም…….. ፊርማ…….

የእማኝ ስም …….. ፊርማ…….

Appendix I: Training Materials

Training materials of Grade 9 English for Ethiopia have been described and tasks and activities based on the selected units of training have been provided as below.

Description of Strategy Training Materials of Grade 9 English for Ethiopia

Grade 9 English for Ethiopia was produced in 2003 E.C. by the Ministry of Education of Federal Democratic Republic of Ethiopia. As stated in the teacher guide of Grade 9 English for Ethiopia, this material was designed to provide a comprehensive English course for the first year of secondary school, meeting the requirements for the English Language Syllabus for Grade 9 (MoE, 2002 E.C.). Thus, Grade 9 English for Ethiopia focuses on all four language skills equally; the course focused on the development of the four skills for communication in a wide variety of contexts, informal to formal (MoE, 2002 E.C.).

Grade 9 English for Ethiopia consisted of 12 units and each unit contained at least one reading section (often two). The aim of this section was to develop students' reading skills, including the ability to read for different purposes, to increase one's reading speed, to comprehend and to 'read between the lines' (MoE, 2002 E.C.).

As the training of cognitive reading strategies for the participants of the research would be carried out in the first half of the academic year, only those reading sections of units, two to five, were selected purposefully. The reading sections of the first unit of the course were basically preparatory ones. In unit one, there were three short readings. The first reading, learning to learn, was about how four different students used their own strategies to read. The second one was about how to get a general idea of texts about five students who were from five different countries. The third reading was about some main points about studying (learning) English. Thus, all the three sections of reading in Unit One focused on providing information how to use different strategies to read. Another reason not to include this unit in the study was that if the strategy training was started very early, some lately coming students of the target groups might miss the training, and this could unnecessarily affect the

result of the study. The fifth and the sixth units would not be included in the training as the readings of the selected three units were sufficient based on the training schedule held.

The three units selected contained 10 reading sections (topics). The contents of the reading sections of the three target units have been shown in the table below. SB stands for student book.

Unit	Unit topic	Reading topic	Part	Page (SB)	duration
2	Places to Visit	• Where can you go on holiday?	A2.5	21	1hour
		• Planning a tour	B2.3	27	1hour+
		• The Simien Mountains	B2.7	32	1hour
		• Welcome to Ethiopia	B2.9	33	1hour
3	Hobbies and Crafts	• The Arts and Crafts Club	A3.5	41	1hour+
		• The karate lesson	B3.3	49	1hour+
		• An informal letter	B3.4	52	1hour
4	Food for Health	• A nutrition leaflet	A4.6	65	1hour
		• The need for balanced diet	A4.9	67	1hour
		• Oranges	B4.4	73	1hour

All of the reading materials in the selected sections were provided for the two target groups with two different approaches as stated in the methodology section of the study. The Control Group was taught the same reading strategy as that of all other Grade 9 students did except the Treatment Group. The Treatment Group was taught six selected cognitive reading strategies plainly in addition to the usual approach of teaching reading for Grade 9 students. The six cognitive reading strategies trained and the procedures of the training have been stated as below.

Cognitive reading strategies trained

As it has been stated in the scope section of the research, there were six cognitive reading strategies that were specifically taught to the Treatment Group of the study. These were **repeating** (categorized under practising), **reasoning deductively** and **analyzing**

expressions (categorized under analyzing and reasoning), **taking notes**, **summarizing and highlighting** (categorized under creating structure for input and output). These six specifically identified cognitive reading strategies were taught for 14 actual hours within twelve weeks.

Strategy training procedure of the Treatment Group

It is advisable to plan and carry out training reading strategies so as to help students learn more effectively (Oxford, 1990). To this end, Oxford has forwarded eight step procedures of reading strategy training 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.

Because the steps listed above were generally assumed to improve learners' reading comprehension through training reading strategies, for this research purpose, it was useful to focus only on the steps listed under numbers 2 through 6. These five steps were actually related to the purpose of the research work. For this purpose, six specific cognitive reading strategies, namely, **repeating**, **reasoning deductively**, **analyzing expressions**, **taking notes**, **summarizing** and **highlighting** were selected.

It was essential to choose two or more reading strategies that were generally useful for most learners and transferable to a variety of reading situations and tasks; these strategies were both fairly easy and valuable to learn. For the training, unlike to a broad focus of strategy training, a focused training combination approach was carried out as specific strategies were selected. To get the learners better understand the reading strategies

selected, the training was closely integrated with reading activities in the conventional student's textbook. Detached training of the strategies was also applied where necessary.

To motivate their learning of reading strategies, the participants were informed that they would **become effective readers** if they were taught reading strategies plainly. The participants were also encouraged to use reading strategies effectively **to improve their reading performance** or **to attain better scores**. In addition, it was explained that using good reading strategies could **make reading comprehension easier**.

According to Oxford (1990), the materials that are being used for reading instruction will double well for strategy training materials. Thus, in any case, reading activities and materials that are likely to be interesting to the learners should be chosen. Based on this assumption and the reading materials of Grade 9 English for Ethiopia, activities and tasks were focused on when and how to use the strategies to be focused on.

As reading strategy was conducted, a special point was made informed to the learners as completely as possible **why the strategies were important** and **how they could be used** in new reading situations. Some reading tasks are provided with reading strategies to practise, and how strategy transfer is possible from task to task is pointed out. As stated by Oxford (1990), research shows that strategy training which fully informs the learner about different uses of reading strategies is more successful than training that does not. For the practical strategy training, Oxford's (1990) sequence of presenting a new strategy as listed below will be applied:

1. Students try a reading task without any training in the target strategy, and they comment on the strategies they spontaneously used to do the task.
2. Teacher explains and demonstrates the new strategy.
3. Learners apply the new strategy to the same reading task as before, or a similar one.

Materials and Activities

The materials of the training were those reading sections of Grade 9 English for Ethiopia, from Unit Two to Unit Four as in the student book (SB). As mentioned earlier, the three target units contained 10 reading sections. All the 10 sections and all the activities for these sections were considered during the training. The Control Group was taught these materials without any additional treatment of the selected cognitive reading strategies; whereas, the Experimental Group was taught these materials in addition to explicit explanation and demonstration of the six selected cognitive reading strategies mentioned. All the six strategies were applied in all the target units. Especial treatment activities for the Experimental Group were separately indicated immediately after each reading section and activity/activities. The materials and the activities for the training have been provided below.

Unit Two: Places to visit

There were four very interrelated reading sections based on the topic of this unit. Each section took one hour. The target reading sections and their activities have been indicated below.

Reading Topic 1.**Where can you go on holiday? (Duration: 1 hour)**

This topic is located at the top of SB (student book) page 21, under the heading A2.5 Reading. Immediately after the topic, four pictures of Debre Damo, Lalibela, Nejashi Mosque and Gondar have been provided, and then the instructions stated below have been given followed by a dialogue of 29 lines between Aret and Liben. After this dialogue, 10 questions, which are provided below, have been asked.

1. Read the text below and answer the questions.

1. Which three places does Liben describe?
2. How does he know about these places?
3. What is Aret's friend's main interest?
4. What is Gondar noted for?

5. What do travel writers describe as “the eighth wonder of the world”?
6. Why can Aret not visit the Debre Damo Monastery?
7. Which is the oldest site mentioned in the text?
8. What is the oldest name of the oldest mosque in Ethiopia?
9. Why was the mosque founded?
10. What other historical sites …

Reading Topic **2. Planning a tour (Duration: 1 hour)**

This second topic of unit two is located on SB page 27, under the heading B2.3 Reading. Among the three instructions given, the first instructions, “Liben’s uncle works in a tourist office. He arranges different kinds of tours for visitors to Ethiopia. The first instructions stated below is followed by a 41 line passage which contains Tour 1 and Tour 2. Then, the second instructions stated below follow with following five questions:

1. Read these tour suggestions and follow the suggested routes on a map.

2. Now complete these tasks in your exercise book.

1. List all the place names in each tour.
2. How many of these places can you find ain an Atlas, or local maps of each area?
3. Draw a map for each tour and plot the route of each holiday on the map.
4. In pairs, describe which tour you would each like to go on, then describe the activities you were doing on each day, for example:

   Student 1: on the first day of tour 1we drove through …

   Student 2: on the first day of Tour 2, we …

5. Now ask your partner questions about the chosen tours.

   Example:

   How far is it from Dinsho to Goba?It is 42 km.

The task for the third instructions is as below.

3. Read the passage and choose the correct word or phrase from the box to complete it.

holidays / vacation	travel / trip	journey / outing	camp/hotel
set off / set out	by car / on foot	trek / clim	submit/peak

During the …….., we went on a day …..…… to the Simien Mountains. Our …… was arranged by a tour guide. We spent a night in an ……..…… Ambiko, then we ….…… in the morning …….. to ……. Ras Dashen, which is the highest …… in the Simien Mountains.

Reading Topic **3. The Simien Mountains (Duration: 1 hour)**

This third topic of unit two is located on SB page 32, under the heading B2.7 Reading. Before reading a two paragraph (21 lines) text, students are asked to work out the meanings of words and do tasks as under the instructions given below.

1. **Look up the meanings of the following words in the dictionary and wwrite them in your vocabulary book:**

rugged	remote	infrastructure
facilities	spectacular	massif

2. **Read the following tourist office leaflet.**
   A two paragraph (21 lines) text is read.
3. **Compare this text with the information provided in Tour 2: Trekking in the Simien Mountains on page 28. Explain why the two texts are so different.**
4. **Read the text and answer the questions.**
   1. How high are the Simien Mountains?
   2. Eventhough the mountains are in Africa, what can you find on the peaks?
   3. Describe the park and its different regions (topography).
   4. What kinds of animals can be seen in the mountains?

5. Why was the park created?
6. How can visitors access the park?

Reading Topic **4. Welcome to Ethiopia (Duration: 1 hour)**

This fourth and last topic of unit two is located on SB page 33, under the heading B2.9 Reading. Students are asked to read a page and half article with different pictures. Then they are asked to do two activities as in numbers 2 and 3 below.

2. Read through the travel article again and write notes under the following headings:

Introduction and welcome

Tours and activities

Flora and fauna

Why Ethiopia is unique

What Ethiopia offers the tourist

4. **Discuss in groups which reading passage in this unit you have found the most informative and give your reasons for your choice. Share your conclusions with the rest of your class.**

Unit Three: Hobbies and Crafts

This unit has three reading sections which are interrelated. The sections of this unit will take four hours to train. The sections and their activities have been presented below.

Reading Topic **1. The Arts and Crafts Club (Duration: 1 hour)**

This reading topic is located on SB page 41, under the heading A3.5 Reading. This is nearly a two pages passage, in which seven students participated in trying out different arts

and crafts in the club. After reading the passage, students are asked to answer 15 questions as below.

1. Answer these questions
    1. Why did Weizero Hinia collect many different materials?
    2. What did the school do on parents' day?
    3. How did Halima make coloured ripples and patterns in the cloth?
    4. Why did Halima rinse out the cloth in cold water?
    5. Why did she twist the cloth around some pebbles?
    6. What is batik?
    7. How did Fanos make embroidery patterns on cloth?
    8. How did Liben make his mats?
    9. Did Girmay make baskets in the same way as Liben?
    10. How did Jemal make clay pots?
    11. What equipment did Neima use to make her pots?
    12. Why did Weizero Hinia put the pots in a kiln?
    13. How did Neima decorate her pots?
    14. How did the club make money to buy more materials?
    15. What helped the club members improve their skills?

Reading topic **2. The karate lesson (Duration: 2 hours)**

This reading material (an extract from a book) is located on SB page 49, under the heading B3.3 Reading. Before reading, readers have been given some useful information about the extract. The extract is followed by 6 activities to do as below.

1. Answer the questions below and write the answers in your exercise book.

1. Why did Mondli want to learn karate?
2. How did Phindile react to Mondli's reasons for wanting to learn karate?

3. Why did Phindile say that Mondli should go to karate lessons at the Youth Club?
4. Why is shouting important when you do karate?
5. How did Nosipho know that Temba was interested in what Phindile was doing?
6. What is karate for?
7. Why is having Temba in the house difficult for Nosipho's mother?
8. Why did Phindile warn Nosipho about Temba?
9. What influence has Temba had on Mondli already?
10. Why does Phindile think the Youth Club will help Mondli?

2. Write a few sentences explaining what karate is, using the information in the text.

3. Discuss the following questions with a partner.

1. What do you think Phindile has himself learned from karate?
2. Do you think karate is a good hobby for Mondli? Why?
3. What do you think could happen to Mondli if he doesn's start going to the Youth Club?
4. What can we learn from the text about the importance of hobbies?

4. Make two lists: a) of Phindile's opinions b) of Temba's opinions and discuss them with a partner. Say whether you agree or disagree with Phindile's or Temba's opinions.

5. Now say if you agree or disagree with the following statements and the reasons why.

1. Karate is useful in self-defence.
2. Karate would be useful in a flight.
3. Karakatas must be well trained.
4. Temba is smart.
5. Temba is a bad influence on Mondli.

Example: I agree that karate is useful to defend oneself, but it should not be used to provoke a flight.

6. **The following words have been taken from the text. Chose the correct definitions for each one.**

weapon

a tool used in gardening

b an instrument to fight with

c something used in dyeing

explode

a to burst with a loud report

b to make something dark

c to kill someone

threatening

a calm and friendly

b not very friendly

c meaning to cause harm

stomach

a the upper part of the body

b the place where food is digested

c where food is absorbed into the bloodstream

impressed

a dented

b carved

c strongly influenced

casually

a done with care

b done carefully

c done in a careless way

Reading topic **3. An informal letter (Duration: 1 hour)**

This third reading topic, An informal letter, of Unit Three is located on SB page 51, under the heading B3.4 Reading, that is, immediately after the tasks of the second reading passage. Before reading the letter and working with a partner, some information has been given about it as below.

1. **Nosiph wrote a letter to a friend in Ethiopia about Phindile and how he had dealt with Temba. Read the letter and work with a partner to investigate the meanings of any words you do not understand.**

After this, a letter is read and then two activities follow as in numbers 2 and 3 below.

2. **What do you know about informal letters? Choose the correct answers to the questions.**
    1. Who is an informal letter written to?
        a. someone you know well
        b. someone you don't know well
    2. Where does the sender's address go?
        a. in the top right hand corner
        b. in the top left hand corner
        c. at the bottom of the letter
    3. Where does the date go?
        a. above the sender's address
        b. at the bottom of the letter
        c. under the sender's address
    4. Which of these can be used as the greeting?
        a. Dear Auntie Helen
        b. Hi!
        c. Dear Sir or Madam
    5. Which of these can be used to close the leter?
        a. Best wishes
        b. Lots of love
        c. Yours sincerely
    6. How can you sign your name?
        a. with your signature
        b. with your first name
3. **Look at this letter from Abel. Decide where each of these things should go and mark them on the letter. One has been marked for you.**
    a. Abel's name
    b. the date
    c. the close

d. the greeting
e. Abel's address

Example: 1 = d

4. **Write a reply to Abel's letter giving the directions to your house.**
    - Use your imagination and the information in the letter to answer Abel's questions in the letter.
    - Add any other information that you think your friend would be interested in.
    - Lay out the letter correctly.
    - Write in a conversational style. You can use contractions if you wish.

Unit Four: Food for Health

Similar to Unit Three, Unit Four has three reading sections which are very interrelated. All the sections will take four hours to train as presented below.

Reading Topic **1. A nutrition leaflet (Duration: 2 hours)**

This reading topic of Unit Four is located on SB page 65, under the heading A4.6 Reading. About a half page passage of this topic is about a healthy diet and five activities to do. The first activity is to predict words and ideas in the passage, and then different tasks, including reading the text, are provided to do as below.

1. **Read the following leaflet about a healthy diet. Discuss the title with a partner and predict what words or ideas might appear in the text. Use phrases like:**
    - It talks about …
    - It might be about …
    - I think it's about …
2. **Read the text silently.**

3. **Look at the table below. Match the nutrients in the first column with their function in the second column, and with the example foods in the third column.**

2 carbohydrate = **i** This gives you energy = **c** milk **d** maize **h** rice

Nutrients	Function	Foods
1. protein 2. carbohydrate 3. fibre 4. fat 5. vitamins and minerals	i. This gives you energy ii. There are many of these. They help you fight diseases and keep different the body health. iii. This is stored in the body. It gives you energy and keeps you warm. iv. This helps your body grow and repair itself. v. This helps your body to digest food.	a. vegetables b. beans c. milk d. maize e. fruit f. fish g. butter h. rice i. meat j. oil k. groundnuts

4. **Work with a partner. Decide if these statements are True or False. Write the answers in your exercise book.**
   1. Most food contains only one nutrient.
   2. Protein is not very important.
   3. It is good to eat a lot of fat.
   4. You should eat different coloured vegetables and fruit.
   5. You should drink a little water every day.
   6. Food that contains only sugar is not nutritious.
5. **Work with a partner to ask and answer questions about the different food groups in the passage, using the question words where? Which? Why? What? and How?**

   Example:

Question: How does the body use carbohydrates?

Answer: They are used for energy.

Question: Which foods contain carbohydrates?

Reading topic **2. The need for balanced diet (Duration: 1 hour)**

This second topic is located on SB page 67, under the heading A4.9 Reading. In this section, an extract of a newspaper article of five incomplete paragraphs has been provided. The following ten words have been given to complete the text, as the only task of the text.

Read this extract from a newspaper article about the different foods that our bodies need. Remember to include a leaflet heading, subheadings and artwork if you wish.

	particular	expectant	obtained	include	regular
	healthy	energy	addition	sources	extra

Reading topic **3**. **Oranges (Duration: 1 hour)**

This third and last topic of Unit Three is located on page 73, under the heading B4.4 Reading. A page text of this reading section has two tasks to do. The first task is reading the text quickly to tell the key points. The second one is reading the text again to answer 10 questions. These are shown below.

1. **Read the following text quickly and tell your partner the key points.**
   (The text is read.)
2. **Read the text again and answer these questions in your exercise book.**
   1. What fruits are grown in the writer's village?
   2. Why do many people like growing oranges?
   3. What was the air like under the trees?
   4. Why did the writer's brother seldom help to pick oranges?
   5. Who ate the oranges that the writer peeled?

6. When was there no time for playing?
7. The writer peeled the oranges as her mother did, but what other method did she use?
8. What does vitamin C do for our bodies?
9. What advice did the writer give us?
10. Complete the sentence: The more oranges one eats, the fewer … one gets.