



ADDIS ABABA UNIVERSITY
COLLEGE OF HUMANITIES, LANGUAGE STUDIES, JOURNALISM AND
COMMUNICATION
DEPARTMENT OF FOREIGN LANGUAGES AND LITERATURE

INVESTIGATING THE EFFECTS OF EXPLICIT STRATEGY INSTRUCTION ON
READING COMPREHENSION AND STRATEGY USE OF GRADE ELEVEN
STUDENTS IN ADDIS ABABA HIGH SCHOOLS

BY
DESTA WENDA FEREW

A DISSERTATION SUBMITTED TO THE DEPARTMENT OF FOREIGN
LANGUAGES AND LITERATURE, COLLEGE OF HUMANITIES, LANGUAGE
STUDIES, JOURNALISM AND COMMUNICATION IN PARTIAL FULFILLMENT OF
THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY (PH.D)
IN ENGLISH LANGUAGE TEACHING (ELT)

JUNE 2024
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This is to certify that the thesis prepared by Desta Wendaferew, entitled “**Investigating the Effects of Explicit Strategy Instruction on Reading Comprehension and Strategy Use of Grade Eleven Students in Addis Ababa High Schools**” is submitted in fulfilment of the requirements for the Degree of Doctor of Philosophy in English Language Teaching (ELT) complies with the regulations of the University and meets the accepted standards with respect to originality and quality. We, the board of examiners, confirm that this thesis has passed through the defense and review processes.

APPROVED BY BOARD OF EXAMINERS:

Advisor	Signature	Date
Internal Examiner	Signature	Date
External Examiner	Signature	Date

DECLARATION

I, the undersigned, declare that this dissertation entitled “**Investigating the Effects of Explicit Strategy Instruction on Reading Comprehension and Strategy Use of Grade Eleven Students in Addis Ababa High Schools**” is my own work, carried out under the supervision of Abebe Damtew (Ph.D), and all sources of materials used for this work have been duly acknowledged and referenced. I further declare that this thesis has not been presented for a degree in any other university.

Name: Desta Wendaferew

Signature: _____

Date: _____

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ABSTRACT

The general objective of this study was to investigate whether explicit teaching in combined reading strategies improves reading comprehension and strategy use of grade eleven students in Tesfa Birhan General Secondary School in Addis Ababa. Using a quasi- experimental pre-test-post control group design, eighty-seven students were selected from two intact classes that were assigned to the control and experimental groups. Having ensured both groups' homogeneity in terms of reading comprehension and reading strategy use, the experimental group received explicit instruction in a variety of reading strategies embedded into their English reading lessons for about four months. Data were mainly collected via reading comprehension tests, reading strategy questionnaires and interviews. The reading test and the questionnaires were administered to both groups before and after the training, whereas the interview was conducted only with the experimental group after the training. Both descriptive and inferential statistics were used to analyze the data. The independent sample t-test indicated that the experimental group significantly outperformed the control group in terms of post-test overall reading comprehension mean scores with a large effect size. The paired sample t-test result also indicated students in the experimental group significantly improved their overall reading comprehension post-test mean scores with large magnitude difference. Similarly, Mann Whitney U test results of the posttest indicated students in the experimental group significantly outperformed their counterparts in three reading comprehension sub-skills: reading for the main idea, detail, and vocabulary skills, however, no significant difference was found for inference and reference skills. Furthermore, the result of the questionnaire showed that students in the experimental group significantly increased their overall reading strategy use after the training. The interview findings also suggested that the experimental group greatly benefited from the training. Finally, the overall finding implied that explicit instruction in a combination of various reading strategies is vital in promoting secondary school (particularly grade eleven) students' English reading ability in Ethiopian context. Accordingly, it was recommended that English teachers could consider implementing explicit instruction in a variety of RSs in teaching English reading, and students should be adequately supported and encouraged to use different reading strategies to avoid their reading difficulties.

Keywords: Explicit instruction, Combined reading strategies, Reading comprehension, Reading strategy use

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ACRONYMS

RSs: reading strategies

LLSs: language learning strategies

SILL: strategy inventory for language learning

RSU: reading strategy use

CALLA: Cognitive Academic Language Learning Approach

CG: Control group

EG: Experimental group

L2: Second Language

MoE: Ministry of Education

CHAPTER ONE: INTRODUCTION

1.0 General Introduction

This section provides a brief overview of the background, statement of the problem together with the general and specific objectives and research questions. The chapter also provides the scope, significance, limitations and operational definitions of the study.

1.1 Background of the Study

To communicate successfully, EFL learners need to improve their vocabulary, speaking, listening, reading, and writing skills (Al-khresheh & Ali, 2023). More importantly, people in different parts of the world may read in English either for academic or non-academic purposes. Therefore, developing adequate reading skills in English is pivotal for ensuring success in education as well as in professional life in the modern world (Grabe & Stoller, 2019). Globally, scholars agree that reading in English is key as it helps learners improve not only their language ability but also all educational areas (Grabe, 2009; Nunan, 2003; Williams & Burden, 1997; Yang, 2016). However, it has been pointed out that reading in English can be a difficult task for English as a foreign language (EFL) learners in different contexts (Chinpakdee & Gu, 2021; Shen, 2003). The problem might be in different reading teaching programs, more emphasis and time can be put on assessing reading comprehension than on teaching readers how to understand a text (Nunan, 2003).

In the context of Ethiopia, reading difficulty affects students' academic success and job-related activities (Berhanu, 2018). Several local researchers (e.g., Rahel et al., 2018; Ermias & Taye, 2022; Benti et al., 2017) agreed on the idea that among other skills, reading is vital for students at the secondary school and university levels. To put it differently, Ethiopian secondary and higher education learners' academic achievements in English and other non-English subjects (e.g. history, geography, and economics) depend on students' ability to read and comprehend English texts. Despite the importance of English reading, nationally, it is evident that the number of students who could pass grade twelve national examinations, is drastically decreasing from time to time. As an illustration, MoE reported that during the 2022 academic year, about a nine hundred thousand students took the

national exam but only 26 thousand (3.1 %) passed; similarly, in the 2023 academic year, more than eight hundred thousand students took the national exam, however, only 3.2 % of them scored above fifty percent, which is extremely shocking and an alarm for academic failure as a national level. Moreover, based on information from Tesfa Birhan Secondary school, where the current study was conducted, out of 300 students, only 7 of them passed the grade 12 national examinations and joined higher institutions during the 2023 academic year. Thus, students' poor reading ability could be one of the contributing factors to students' failure in national examinations. In relation to this, MoE disclosed that learners' general English language proficiency in general and reading, in particular, is at risk; children do not learn to read well before finishing primary school, and this situation lasts for students in secondary schools (MoE, 2020). Besides, today, it is common to hear complaints from various local writers, including novelists, about the poor reading habits of many literate individuals in Ethiopia.

Nowadays, there is a paradigm shift to technology-based instruction aiming at improving learners' academic performance. In this context, the contribution of technology-based teaching in developing students' English language skills has attracted international researchers (Azizi et al., 2022). Because of globalization, technology-based instruction has been introduced in Ethiopia aiming at enhancing learners' academic performance in general and English language skills in particular. MoE has been striving to improve the teaching of English and other content subjects at secondary and higher education levels. Televised or Plasma-based instruction, for example, was designed for Ethiopian secondary school students throughout the country in 2004 to improve educational problems (Abebe, 2012; Berhanu, 2013). However, teaching English language skills through plasma television in general and reading skills, in particular, did not encourage students to be "active" readers; rather it made them "passive" readers (Abebe, 2012). The current researcher is also a witness to the drawbacks of plasma as she was among the first batch of students who entertained plasma-based instruction for about 4 years (beginning from grade 9 to 12) when plasma lessons started. The English plasma teacher (whose pronunciation was extremely strange for Ethiopian students and who used to read fast) confused us. My friends and I were demotivated by lessons of plasma not only for English skills but also for other subjects. I realized that reading lessons via Plasma seemed to negatively influence

my reading habit until recently. Of course, plasma failed to achieve its goal and is almost interrupted today, which questions the feasibility of language teaching through technology in the local context, especially at the high school level.

In fact, very recently, Atalay and Berhanu (2023) explored the effect of a web-based feedback system in developing the reading skills of Ethiopian university students with promising findings on technology-based teaching. However, it can be noted that the participants of the study were university students, who may have had more exposure to the use of technology compared to students at the secondary level. Of course, we cannot hide the role of technology in our entire lifestyle, but using technologies for academic purposes in Ethiopia, especially in primary and secondary schools, seems implausible and impractical. Hence, the present researcher argues that an effective teaching method has to be implemented in EFL reading classes to promote learners' reading ability in Ethiopia where the exposure to English is in the classroom, especially in government schools.

Literature shows that reading is a complex concept that cannot be explained in one way. It does not mean simply the identification and interpretation of letters and the creation of phonics, but it involves comprehension, which requires the use of a variety of reading strategies (Bouchard, 2005). Reading involves comprehension, which entails identifying the main idea of a text, details that support the main idea, making inferences and vocabulary for which students are required to employ a combination of strategies during reading (Grabe & Stoller, 2019). Readers actively combine their bottom-up processes; for example, the ability to decode and recognize words and grammatical forms with their top-down processes, such as using background knowledge to predict and confirm meaning (Grabe, 2004; Grabe & Stoller, 2019). Both top-down and bottom-up processing are complementary approaches to text processing and are necessary for reading; however, there are instances where one approach takes precedence over the other (Nuttall, 2001). Thus, reading can be considered an interactive process of determining meaning and solving problems, which requires deliberate efforts and learners' strategic skills (Chinpakdee & Gu, 2021; Gu, 2019). Moreover, reading is said to be a 'cognitive' and 'strategic' process of comprehending a text's meaning (Grabe, 2009; Straková, 2013). Hence, learning strategy is among the important factors in promoting the comprehension process (Yang, 2016).

According to Taheri et al. (2020), the first evidence of research on second language (L2) learning strategies began in the 1970s in Rubin's work entitled "What Good Language Learner Can Tell Us". Rubin (1975), a former researcher in L2 acquisition, highlighted that students who fail to learn new languages can be taught the strategies employed by successful language learners to advance their language skills. Likewise, the process of reading comprehension has been grounded in what good readers do while they read (Duke & Pearson, 2009), and it has been indicated that lack of adequate strategy training and practice in the EFL context may contribute to students' reading difficulties (Yan & Kim, 2023). Regarding this, pioneer experts in reading (e.g., Grabe & Stoller, 2019; Nunan, 2003; Snow, 2002) have suggested the idea that instruction in the use of reading strategies (hereafter RSs) is one way of assisting learners' reading difficulty. RSs, which emanate from general language learning strategies (LLSs), are operations or comprehension techniques that readers apply as they read to understand a text (Afflerbach et al., 2008). They are intentional actions taken by a learner to achieve specific goals or objectives and can be used in various ways depending on the context and learner (Al Raqqad et al., 2019).

Scholars suggest that multiple strategies (rather than individual) instruction improves learners' reading performance (Duke & Pearson, 2009; Grabe & Jiang, 2011; Oxford, 1990). Strategies are interconnected, and thus, should be seen as a continuous process rather than individual isolated actions (Anderson, 1999). Incorporating RSs into her six comprehensive strategy classifications (memory, cognitive, compensation, metacognitive, affective and social), Oxford (1990) notes that the six categories are interrelated with each other to fix learners' language learning problems. Memory strategies, for example, semantic mapping and imagery, are used to retrieve and remember new information; cognitive strategies such as summary and note-taking are vital to understand and learn a new language; compensation strategies are about using make up for knowledge gaps through linguistic and context clues; metacognitive strategies, on the other hand, are key for coordinating one's learning progress; affective strategies help students in regulating emotions, and social strategies help students to learn from one another (Ibid). To put this in different words, using a combination of various RSs from the six categories, for instance, summarizing, forming questions, imaging, predicting, activating background knowledge, and monitoring comprehension, seems vital for comprehension and promotion of strategic

readers (Chamot, 2005; Grabe, 2009). Strategies are teachable, and successful learners employ a repertoire of RSs more effectively than less successful learners to aid their reading difficulties (Oxford, 2017). Students could attack difficult tasks if they are explicitly taught a repertoire of strategies (Khellab et al., 2022), highlighting that providing training in various RSs would assist students' reading difficulties.

Furthermore, researchers have proposed different views regarding the teaching approaches of LLSs. For example, implicit and explicit instruction has attracted researchers in the field of teaching reading (Shen, 2003); however, explicit instruction, which has been commonly used by EFL reading researchers, is one of the best approaches in teaching strategies (Chamot, 2005). Explicit instruction means teaching strategy directly, intentionally, and systematically, whereas implicit instruction means that strategies are not explicitly taught in systematic ways (Oxford, 1990). As a result, students could attack difficult tasks if they are explicitly taught a repertoire of strategies (Khellab et al., 2022). Studies on LLSs in L2 and foreign language (FL) reading contexts found that explicit strategy instruction is likely to be more effective than implicit or non-integrated instruction (Gu, 2019; Jiang & Grabe, 2011). It is worth mentioning that explicit strategy instruction does not mean simply telling learners to use strategies; rather, it involves discussing with learners what strategies are (declarative knowledge), when, where and why to use them (conditional knowledge), and how they can be used (procedural knowledge) to facilitate students' learning reading (Al Raggad et al., 2019; Chinpakdee & Gu, 2021; Manoli et al., 2016). On the other hand, whether strategy instruction should be integrated or separated has been another view of experts with a suggestion that rather than offering a separate learning strategy teaching, teachers need probably to incorporate the training into their regular coursework (Chamot, 2004).

In fact, LLSs may not be a panacea to fix the entire language acquisition problem, but they are very helpful in conjunction with other techniques (Griffiths, 2004)), suggesting that various factors should be considered to observe the causal relationship between strategy training and students' reading performance. That is why Duke and Pearson (2009) commented that good comprehension instruction comprises not only explicit teaching of particular comprehension strategies but also facilitating supportive classroom situations,

for example, sufficient time for reading, preparing a variety of texts to practice reading and assisting pair work that involves discussions of a written text. In Vygotsky's (1978) sociocultural theory, it is implied that learning takes place in collaboration with others in which students require support (scaffolding) from a more knowledgeable person until they become autonomous learners, and the term scaffolding is connected with Vygotsky's Zone of Proximal Development (Clark & Graves, 2005). Through a process of teacher modeling, scaffolding, and assistance, students learn to be involved with texts strategically, and gradually independently practice LLSs for a better understanding of a text (Grabe, 2004). In other words, based on sociocultural theory, teachers can transfer higher-order meta-cognitive strategies to their students through scaffolding and modeling; then after helping learners to read independently, teacher scaffolding can be reduced (Ahmadi & Gilakjani, 2012).

In Ethiopia, the practice of teaching of reading seemed traditional where students passively interact with reading materials without the necessary support. It was evident that secondary school students were not truly engaged in reading; rather, they were expected to read mechanically through memorization and surface-level understanding (Abebe, 2012). Local researchers (e.g. Alebel, 2020; Ermias &Taye) revealed most teachers do not follow the recommended teaching methods and they did not teach the three reading stages properly. Ineffective teaching of reading and unsuitable tasks are major factors affecting students reading abilities. This situation indicates creating a learning environment that encourages students to actively engage with the reading activities in order to enhance their comprehension ability. Accordingly, in light of sociocultural theory, this study aims to investigate whether explicit instruction with a combination of various RSs promotes reading comprehension and reading strategy use (RSU) of grade-level students in Tesfa Birhan secondary school.

1.2 Statement of the Problem

Given the importance of English reading in the Ethiopian academic sectors, particularly at secondary level, secondary school students' low achievement in English reading has been a central issue among local researchers (Abebe, 2012; Geleta et al., 2022; Tadiwos et al.,

2022; Ermias & Taye, 2022). Furthermore, complaints have been frequently heard from different public secondary school English teachers in Addis Ababa about their students' poor reading comprehension ability. Three EFL teacher from Kokebe Tsibah and Tesfa Birhan secondary schools in the 2022 and 2023 academic years, for example, worried about the majority of their students' failure to comprehend a given English text.

In fact, students' poor performance in reading could be attributed to different factors, but the present researcher assumes that the limited knowledge of employing RSs by students and the inappropriate methods of teaching reading at secondary schools could be among the causes. From the informal talk with grade eleven students in Entoto Amba and Kokebe Tsibah Secondary Schools, the current researcher realized that teaching reading skills has been given little attention. Students' oral reports indicated that they had been told to read a given passage themselves without or with a little guidance and support, and sometimes the reading sections were escaped. After exploring the practice of teaching reading comprehension in Ethiopian secondary schools, Simachew and Dawit (2018) also reported that teachers did not practice the majority of the RSs except for asking and answering questions. As a result, (Chanyalew& Abiye, 2015; Fikadu, 2021) recommended the need to provide training on the uses of different strategies to both teachers and students to make students able to direct their learning. In this sense, this study aims to check whether explicit teaching in combined RSs would contribute to EFL grade eleven students' reading comprehension and their RSU.

Some local studies related to the current, have been conducted before. For example, Rahel et al. (2018) employed a quasi-experimental design and conducted a related study. Using, reading comprehension tests and self-efficacy questionnaires as data-gathering tools, they found that students in the experimental group benefited more than the control group in reading comprehension achievement and reading self-efficacy after strategy training. Likewise, Benti et al.(2017) examined the effect of reading strategy training on grade 9 students' reading achievement'; the study concluded that reading strategy training brought a significant difference between the control and experimental groups in their reading achievements. Moreover, recently, Geleta et al. (2022) investigated the effectiveness of explicit reading strategies on grade 9 students' achievement in reading comprehension

around Wollega. Assigning 33 students to the control groups and the rest 35 students to the experimental groups, the authors confirmed the benefit of explicit strategy instruction in enhancing students' reading ability.

However, several contextual and methodological gaps have been identified in the previous local studies. Firstly, as far as my reading is concerned, no research has examined the effect of combined (i.e., memory, cognitive, compensation, metacognitive, social, and affective) strategy instruction on grade eleven students' English reading comprehension, particularly in the context of Addis Ababa. Therefore, the author of the current study noticed that explicit teaching in combination with various RSs in line with the three reading stages (pre-,while, and post-reading) to facilitate students' reading comprehension, seems more important than relying on a few strategies or a single RSs category. In addition, the previous researchers did not assess students' current level of RSU before conducting training. Moreover, several methodological gaps that might be a source of bias in the outcomes of interventional studies, were observed in the previous studies. For instance, the previous empirical studies did not clearly show how the experiment was carried out, and they did not inform readers the test administration and marking procedures. Some of the previous investigators conducted the treatment themselves which could be a source of internal validity threats to the outcome of the study. More importantly, the previous researchers did not employ any follow-up measurements during the implementation of the intervention except Chanyalew and Abiy (2015) who implemented training follow-up measures while conducting their study in an elementary context. Checking assumptions, such as normality tests, to perform either parametric or nonparametric statistical tools was also missed in the previous studies. Finally, computing the effect size other than reporting significant value, was an additional gap. Therefore, this area seems to be further investigated.

Furthermore, a plethora of related empirical studies, which were briefly discussed in the literature section, have been conducted abroad from which some research gaps were identified. As a result, researchers suggested that although LLSs are claimed to be effective in improving EFL learners' reading comprehension (Chinpakdee & Gu, 2021; Yan & Kim, 2023), several issues remain unresolved in the literature. For instance, the context and the types of strategies to be taught, and their number, including the methodological aspects of

the intervention, have been debated among L2 and EFL researchers (Maeng, 2014; Plonsky, 2011; Yan & Kim, 2023). Additionally, there has been no consensus among scholars and researchers about the best ways to teach strategies, including whether instruction should be combined, detached, or embedded (Yan & Kim, 2023). For instance, after reviewing thirteen studies conducted on the impacts of RSs training in EFL reading contexts, Al Raqqad et al. (2019) commented that it is still unclear whether some strategies are better than others to improve EFL learners' reading comprehension. Maeng (2014), on the other hand, argued that it is preferable to present a repertoire of reading strategies, as a single strategy could not be suitable to all readers, which is the concern of the present researcher too. Such a situation, according to Snow (2002), implies that teaching strategies are a promising start for future studies on teaching reading comprehension. This study, therefore, would contribute to such controversies in literature and tries to fill the gaps identified so far. To this end, the general and specific objectives of study are stated below.

1.3 Objectives of the Study

The study has the following general and specific objectives.

1.3.1 General Objective

The general objective of the study was to investigate to what extent explicit instruction in combination with various RSs would contribute to grade eleven students' reading comprehension and RSU in Tesfa Birhan Secondary School.

1.3.2 Specific Objectives

The Specific objectives of the study are:

1. To assess whether or not grade eleven students improve their overall reading comprehension performance after they received explicit instruction in combination with various RSs.
2. To identify grade eleven students' progress in reading for the main idea, detail, vocabulary, inference and reference sub-skills after they received the training.
3. To assess whether or not explicit teaching in combination with various RSs contributes to grade eleven students' reading strategy use.

4. To find out students' views about the benefit of the training in promoting their reading comprehension?

1.4 Research Questions

The study tried to answer the following research questions.

- 1.4.1 What is the effect of explicit instruction in combined RSs on grade eleven students' reading comprehension performance?
- 1.4.2 Is there a statistically significant difference between the control and the experimental groups' post-test mean scores of reading for the main idea, detail, vocabulary, inference and reference sub-skills?
- 1.4.3 What is the effect of explicit training in combined RSs on grade eleven students' reading strategy use?
- 1.4.4 How do students in the experimental group view the reading strategy use training in promoting their reading comprehension?

1.5 Scope of the Study

This study is delimited in terms of participants, language skills and strategies. It was mainly delimited to grade eleven students in Kokebe Tsibah and Tesfa Birhan Secondary Schools in Addis Ababa for the pilot and main study, respectively. Only two intact classes were selected for the study due to time and budget constraints. The two main dependent variables (reading comprehension and RSU) were examined to investigate the effectiveness of the independent variable in depth. Only reading, among the rest skills, was focused on as it is believed to be a key for student academic success and life-long process. Moreover, despite a significant number of ongoing empirical investigations around the concept of reading, the problem has not been solved so far. The five reading sub-skills (reading for main ideas, details, vocabulary, inference, and reference skills) incorporated in the adapted test, were treated in the present study. Other affective variables (e.g. motivation and self-efficacy) were not included in this study thinking that the study might be shallow and cannot address several issues sufficiently. Moreover, since there are a plethora of RSs, some relevant strategies such as semantic mapping, skimming, taking notes, summarizing, guessing;

setting goals, self-monitoring, self-encouragement, and cooperating were selected for present study. These strategies were selected because they have been proven to help solve learners' reading difficulties, and it seems impractical to include a number of strategies and practice them during the four-month training schedule.

1.6 Significance of the Study

The present study might yield results that may have implications for the existing body of knowledge, teachers, students and researchers for pedagogical purposes in the EFL reading context. First, since students' awareness of learning strategies is claimed to have a positive effect on reading skills, this study adds value to the existing body of knowledge that explicit teaching in a collection of RSs has significant effects on enhancing students' reading comprehension. Furthermore, despite the existence of similar empirical studies in the local context, the current research presented debates from literature and touched on several methodological issues that were not addressed by the previous researchers and would add knowledge to the interested readers and concerned researchers. This research finding may also help teachers to give considerable attention to the implementation of explicit instruction with a combination of various RSs during teaching reading. This, in turn, might help students to be strategic readers for a better understanding of the text. Students would benefit if they are taught the use different strategies and guided to apply them in reading English texts. Finally, this research could be a springboard for further investigations in the field.

1.7 Limitations of the Study

Although the finding of this study is promising in the context of EFL teaching reading, the research acknowledges some limitations that could be considered by future researchers. For example, the study employed a quasi-experiment design which is suspected to internal validity threats. Although several measures were taken to control the internal validity threats by the present researcher, future researchers could think using random assignment to confidently control potential threats, which were not addressed in the current study. The limited sample size that involved only two intact classes of grade eleven students may also be a threat to generalizing this finding in different contexts. Hence, increments of

participants, especially enlarging the experimental group, would be important for future researchers to confidently generalize the results in a wider context.

Furthermore, despite reviewing local studies and having informal talks with the EFL grade-level teachers and students about the current practice of teaching and learning reading skills before the intervention, the researcher realized that formal interviews should have been conducted with EFL teachers for better insights. Accordingly, for a comprehensive understanding of the implications of the findings, future researchers could consider the limitations acknowledged by the current researcher. In brief, despite such limitations, the findings of the current study provide important insights into the effectiveness of explicit instruction with combination of various RSs in promoting Ethiopian Secondary School (particularly grade eleven) students' reading comprehension skills.

1.8 Operational Definitions

Reading comprehension performance- in this study refers to the learners' scores in the adapted TOEFL reading tests before and after the training. TOEFL stands for the 'Test of English as a Foreign Language' and is designed to measure all four academic English skills - *reading, listening, speaking and writing*. The TOEFL test focuses on assessing specific reading comprehension skills, such as identifying main ideas, guessing meanings of words, inferencing, and identifying references using a variety of strategies that were practiced in the selected reading passages.

Reading comprehension sub-sub skills: here involves, among others, reading for main ideas, vocabulary, details, inference and reference skills that were included in the TOEFL test and practice during the training session.

Reading strategy use questionnaire: refers to reading strategy use items prepared based on Oxford's six strategy taxonomies (memory, cognitive, compensation, metacognitive, affective and social) that were practiced during the training and administered as pre and posttests to measure students' level of strategy use before and after the training.

Combined reading strategies: encompass a set of reading strategies such as semantic mapping, skimming, taking notes, summarizing, guessing, self-monitoring, self-

encouragement, and cooperating selected from the above six strategy categories. These strategies are crucial in solving learners' difficulties related to English reading.

Explicit strategy instruction: here means teaching students directly what reading strategies are, when, where, why and how they are used in reading activities from students' textbook during the four-month training.

The conventional method: refers to the conventional teaching approach that the sample school is implementing, which doesn't involve explicit instructing of strategies; the usual/conventional method can be used interchangeably.

The next chapter presents and discusses related literature with the research topic.

CHAPTER TWO: REVIEW OF RELATED LITERATURE

2.0 Introduction

This chapter presents several important issues in relation to the topic of the study. It discusses key concepts including reading, LLSs, RSs and their classifications, teaching models, related empirical studies, issues in strategy training, factors affecting strategy training and critics of strategy training. The chapter also briefly explains the theoretical and conceptual frameworks of the study followed by a summary of the chapter.

2.1 Defining Reading

The exploration of reading in L2 or FL context commenced primarily in 1970 with the influential publication by Goodman (1967) titled "Reading: A psycholinguistic guessing game."; since then a great deal of investigations have been conducted concerning reading (Khaki, 2014). Despite arguments among researchers about the term reading and its definition, several experts commonly agree that reading is a 'complex' process that cannot be explained singly (Afflerbach et al., 2008; Grabe, 2009; Nunan, 2003; Nuttall, 2001). For example, both Nutall (2001) and Smith (2004) assert that giving a single specific definition to the term reading is not possible because various writers define the term in different ways. While the former author (Nuttall) maintains that assigning reading a single definition is not an easy task since the concept can be explained by different individuals in different ways, the latter fears an 'oversimplification' of such a complex process as reading. Reading is an interactive and non-linear cognitive process that requires readers to use both their linguistic resources (vocabulary and grammar) and background knowledge to extract and interpret meaning from the text (Grabe, 2004; Grabe & Stoller, 2019). It is the ability to extract meaning from the printed material and the appropriate interpretation of this information (Ibid). Moreover, Gabe (2009) defined reading as, "a rapid process; an efficient process; an interactive process; a strategic process; a flexible process; an evaluating process; a purposeful process; a comprehending process; a learning process, and a linguistic process" (P.14). Grabe further explains each term in the above definition; for instance when we say reading is a strategic process, readers are expected to use certain strategies to repair comprehension breakdowns. Reading is an interactive process means a reader brings

his/her background knowledge and connects to the new reading to get the meaning of the text.

According to Nunan (2003) the aim of reading is comprehension, and to comprehend what they read, readers need to effectively combine information from a written text with their existing knowledge. He explains reading as a strategic and fluent process. Strategic reading is related to the ability of the reader to use a collection of reading strategies to accomplish a purpose for reading. He further maintains that good readers know what to do when they encounter difficulties, and he considers fluent reading as the ability to read at an appropriate rate with adequate comprehension. In such a perspective, meaning does not rest in the reader nor does it rest in the text; the reader's background knowledge integrates with the text to create meaning. Thus, reading is the combined product of the text, the reader, fluency, and strategies (Ibid: 68). Comprehension is seen as a complex process that is consuming, continuous, and provides complex activity, but it is satisfying and productive for good readers as proposed by (Duke and Pearson, 2009). According to Snow (2002: 11), comprehension -involves the simultaneous extraction and construction of meaning by actively engaging with written language. This process is seen as an interactive process that consists of three elements: the text as being comprehended, the reader that is doing the comprehending, and the activity in which comprehension is a part, as proposed in the definition of reading comprehension (Ibid). Reading involves comprehension, which entails identifying the main idea of a text, details that support the main idea, making inferences and vocabulary for which students are required to employ a combination of strategies during reading (Grabe & Stoller, 2019).

To sum up, from the discussion so far, we can understand that defining reading in a simple sentence may be misleading and difficult too. Most scholars agree that reading is highly interconnected with comprehension; in other words, reading involves comprehension (i.e. the goal of reading) (Alderson, 2000; Nunan, 2003). The current research relies on Grabe's (2009) definition of reading explained above because it looks comprehensive as compared with other definitions. Among other reading comprehension skills, the current study focused on the five sub-skills, namely, reading for the main idea, detail, vocabulary,

inference and reference skills as the TOFEL test used in this study contained these reading sub-skills.

2.2 Models of Reading

As stated by experts, the reading process involves bottom-up, top-down, and interactive models. Each of these models is briefly explained as follows.

2.2.1 Bottom-up View

Bottom-up processing involves the analysis of individual words, phrases, and sentences to understand the meaning of a text. Readers decode the words and analyze the grammatical structure of the sentences to derive meaning (Nunan, 2003; Alderson, 2000). This model is typically related to behaviorism in which learning sequentially takes place, for example, students must learn to recognize letters before they can read words, etc., (Alderson, 2000). However, the model of reading was criticized by other researchers; for example, Yang (2016) noted that in line with this model, the reader is inertly guided by the text. Word-to-word decoding of meaning from print results in a severe limit to the amount of information the reader can receive, resulting in poor comprehension (Nuttall, 2001; Smith, 2012). In other words, unlike this model, for comprehension to take place, readers need to connect new things to their prior knowledge of the world (Smith, 2012). As a result, advocates of the top-down model suggest that readers' prior knowledge is vital in reading and comprehending a text.

2.2.2 Top-down View

The top-down model begins with the idea that understanding lies in the reader. In line with this model, readers use their background knowledge, such as their knowledge of the topic or their understanding of the world to make predictions (Nunan 2003; Smith, 2012). This model was associated with Goodman (1967) who stated that reading is not a linear process where readers decode words one by one, but a holistic process where readers constantly revise their predictions and hypotheses about the text. He proposed that readers engage in a process called "psycholinguistic guessing," where they actively generate and test hypotheses about the meaning of the text based on their background knowledge and

linguistic cues. These top-down psycholinguistic concepts suggest that readers not only use connections between sounds and letters, and syntax and semantics when reading, but that they also use their prior knowledge (schema) to predict text meaning, and that they read to confirm or correct what they have predicted (Ibid). Clarke and Silberstein (1977) outlined instructional implications for teaching reading which were drawn from the psycholinguistic model of reading, and reading is viewed as an active process of comprehension in which strategies (such as guessing meaning from context, defining expectations, making inferences, skimming, etc.) need to be taught to students so that they can read texts effectively. Clarke and Silberstein also suggested that the goal of teachers should be to introduce students to appropriate approaches for understanding written texts, to assist students in defining goals and strategies for reading, to prepare conceptual readiness in students by using pre-reading activities, and to introduce students to strategies for coping with difficult sentence structure, unknown vocabulary and text organization. However, the top-down view has been criticized for causing an excessive dependence on background knowledge and ignoring the basic text that the reader needs to understand (Yang, 2016). As a result scholars recently developed the interactive model, thinking that the bottom-up or top-down model alone may not be sufficient for the process of reading.

2.2.3 Interactive View

The interactive view is the combination of the previous (bottom-up and top-down) two models. According to Nunan (2003), the interactive view is accepted as the most complete description of the reading process. In addition, comprehension is a complex process and success is achieved through the interaction of both bottom-up and top-down processes (Carrell, 1991; Grabe, 2004). The interactive model is a combination of bottom-up and top-down, where important concepts (for example, vocabulary from the bottom-up and prior knowledge from the top-down approach) are taken from both views and involved in the reading process (Grabe & Stoller, 2019). Readers actively combine their bottom-up processes; for example, the ability to decode and recognize words and grammatical forms with their top-down processes, such as using background knowledge to predict and confirm meaning Grabe (2004). Therefore, the present study relies on this theory to implement reading-strategy training to promote the comprehension ability of secondary school

students. Schema theory (i.e. discussed in the next section) also plays an important role to the current study.

2.3 Schema Theory and Reading Comprehension

Schema is commonly known as the knowledge that has been obtained beforehand, i.e. background knowledge (Cho & Ma, 2020). Schema theory, which is embedded in an interactive view of reading, emphasizes the role of students' background knowledge in the reading comprehension process. It is related to the knowledge we have gained from experience, while reading we use the existing schema in a modified manner (Nuttal, 2001). Studies on L2 reading, for example, Goodman (1976) have shown that meaning does not only come from the text itself but also from the reader, giving her/him an important role in reading comprehension. The reading process is, therefore, the result of the interaction between the reader and the text, in which readers try to match their background knowledge with the new information that comes from the text (Carrell & Eisterhold, 1983). The authors explain that, based on schema theory, understanding a written text involves an interactive procedure between the reader's schemata and the text. This entails that schema is based on the two models (top-down and bottom-up process) (Ibid). Background knowledge is conducive to disambiguating lexical meanings and facilitating contextual guessing, as it provides a framework for readers, which gives those clues and guides their decisions on the meaning of unfamiliar words (Grabe, 2004). Smith (2006) asserted that prior knowledge allows readers to predict while being engaged in reading comprehension and, thus, better comprehend texts and derive pleasure from text reading. Koda (2005) underlines that comprehension occurs when the reader extracts and integrates various information from the text and combines them with what is already known.

As to Cho and Ma (2020), although schema has been classified in different ways by researchers, it can be categorized into two main types: content and formal schema. According to the same author, the content schema is related to one's background knowledge of the world, which encompasses topic familiarity and cultural knowledge (Carrell & Eisterhold, 1983). On the other hand, formal schema refers to background knowledge of the language and linguistic conventions and the rhetorical organization or structure of different types of text (Barnett, 1989; Carrell & Eisterhold, 1983). Formal

schemata assist the reader in identifying relationships between pieces of textual information and putting the details in order. Different text types, such as a newspaper article or an experimental study, have different conventional formal schemata whereas content schemata refer to background knowledge of the world and the content area of a text (Ibid). Different studies have ascertained the effect of activating appropriate background information through pre-reading activities to enhance comprehension. For example, Hudson (1982) used cue pictures as stimuli and a questioning strategy to activate subjects' schemata, whereas Floyd and Carrell (1987) provided subjects with discussion, lectures and slide appreciation as pre-reading activities to activate, as well as construct, appropriate schemata. According to the same authors, teachers must provide their students with the appropriate schemata that they lack, and must also help them build a bridge between their existing and new knowledge.

However, teachers and students in the EFL context do not need to read English except for classroom purposes Nutall (2001). Thus, combined with other strategies, this research aims to help students improve their comprehension by activating their schema/ background knowledge through activities during the pre-reading stage.

2.4 The Notion of Language Learning Strategies (LLSs)

With the emergence of the communicative language teaching approach, there has been a remarkable shift in L2 and FL education, where the emphasis has been placed on learners and learning rather than on teachers and teaching (Taheri et al., 2020; Tseng, 2005). Researchers and experts' shift in focus from the teacher and the teaching product to the learner and the learning process was one of the most significant areas in foreign language education that led to the emergence of LLSs research in the 1970s (Sarafianou & Gavriilidou, 2015). As a result, researchers in the area of L2/FL learning have started to investigate strategies employed by learners that aid their learning. As a result, the first evidence of research on L2 learning strategies began in the 1970s in Rubin's work entitled 'What Good Language Learner Can Tell Us' (Taheri et al., 2020).

Afterward, various scholars have focused on and provided their definitions for LLSs (Chamot, 2005; O'malley & Chamot, 1990; Oxford, 1990; Rubin, 1975). For example,

Rubin defined LLS as “techniques or devices which a learner may use to acquire knowledge” (p. 43). O’Malley and Chamot (1990) state that LLSs are a series of actions, plans, tactics, thoughts, or behaviors used by learners to facilitate the understanding, storage, recovery and use of information. Although all the definitions of LLSs by different scholars share common terminologies, many researchers agreed that the most noteworthy definition to date is given by Oxford (1990:8) that learning strategies are "specific actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations”(p.8). Recently, Oxford (2011) revised her definition of LLSs as "the learner’s goal-directed actions for improving language proficiency or achievement, completing a task, or making learning more efficient, more effective and easier" (P. 167). She further states that LLSs are combinable in clusters or chains and have cognitive, emotional, and social roles.

Ellis (1997) indicated that given the same learning environment, the same learning material, and the same teaching staff, L2 students vary greatly in the speed with which they learn the language. Therefore, different contributing factors, including learning strategy, may affect students’ language learning achievement. Concerning this, Oxford (2003) notes that learning strategies have become one of the main factors that help students to learn a L2 or FL successfully. As a result, several investigations have shown the importance of LLSs in making language learning more efficient (O’Malley & Chamot, 1990; R. Oxford, 1990; Oxford, 1996). The pioneer studies indicated that classroom strategy training is underpinned by the belief that LLSs are teachable and that learners can benefit from being coached in acquiring relevant strategies (Chamot, 2005; Larsen-Freeman, 1991; O’Malley & Chamot, 1990; Oxford, 1990; Rubin, 1975). Concerning this, Rubin (1975) suggests that strategies used by successful language learners can be taught to students who struggle to learn new languages, thereby improving their language skills. According to O’Malley and Chamot (1990), strategy training can help students develop their metacognitive knowledge and autonomous strategy users. Oxford (1990) claims that strategy instruction should be a crucial component of the language learning process because it aids learners in advancing their proficiency, confidence, and self–awareness.

Hence, L2/FL learning strategies with a history of about 50 years, have been the focus of a large body of research (Grabe & Stoller, 2019; Plonsky, 2011). Most of the findings of strategy instruction research in L2 acquisition so far, indicate that strategy instruction has a positive influence on learners' performance (Plonsky, 2011), and can be effective in all contexts for all skills (Plonsky, 2019). Scholars recommended sufficient strategy use to support learners in doing certain language tasks, which is more effective, and students with a large collection of EFL learning strategies perform well (Habók & Magyar, 2019). According to Chamot (2005), LLSs are important in L2 learning and teaching for two major reasons. First, we gain insights into the metacognitive, cognitive, social, and affective processes involved in language learning by examining the strategies used by L2 learners during the language learning process. The second reason is that less successful language learners can be taught new strategies to help them be good language learners. Chamot further explains various descriptive studies have addressed the range and type of learning strategies used by good language learners and the differences in learning strategies used between more and less effective learners. However, until relatively recently there have been fewer studies focusing on the second goal that is trying to teach language learning strategies in classroom settings. Oxford (1990) was one of the first experts to argue that strategy teaching should be a fundamental part of language education, as it helps students gain greater competence, confidence, and self-awareness. She indicated that successful students can orchestrate and combine particular types of strategies in effective ways according to their own learning needs. Students need to be trained on how and where to use learning strategies in order to enhance their foreign language skills (Taheri et al., 2020). Therefore, it is important to carry out research on this area especially in a local context. On top of this, since this study focuses on RSs, related issues are discussed in the following sections.

2.5 Definitions and Classifications of Reading Strategies (RSs)

Since RSs emanate from general language learning strategies (LLSs), they have a common conceptual background. RSs have been defined and classified by different scholars. The next section discusses the definition of RSs followed by their classifications.

2.5.1 Definition of RSs

Among others, Al Raqqad et al. (2019) RSs are said to be deliberate acts, which can be applied in various contexts depending on the situation and the learner made to accomplish predetermined aims or goals. RSs are the most obvious and important when readers are looking for ways to solve problems or specific goals, and they are usually reading a more advanced and difficult text (Grabe & Stoller 2019). They are deliberate activities taken to accomplish a certain reading task, and they can be applied in a variety of ways depending on the situation and the learner (Bedle, 2017). RSs offer readers a direction to text comprehension, and reading strategy training can be an effective method to support struggling readers (Wu et al., 2021). They are intentional actions taken to achieve specific goals or objectives and can be used in various ways depending on context and learner; they are deliberate and goal-oriented processes that support students in generating a text's meaning (Afflerbach et al., 2008). According to Duke et al. (2011), "Effective teaching of reading comprehension helps their students develop into strategic, active readers, in part, by teaching them why, how, and when to apply certain strategies shown to be used by effective readers"(P.63). A strategic reader is someone who unconsciously and consistently utilizes various effective and suitable strategies, based on reader's goals and strategic processing capabilities, and the reading tasks (Grabe, 2009).

2.5.2 Classification of RSs

There has been overlapping among scholars regarding the classification of RSs. Bedle (2017) noted that the strategy classification made by O'Malley and Chamot (1990) and Oxford (1990) has been frequently utilized and overlap each other. O'Malley and Chamot (1990) classified strategies into three broad categories: cognitive, metacognitive and social/affective strategies. On the other hand, Oxford, (1990) discusses social and affective strategies independently and added two strategies (memory and compensation).In this way,

she classified the strategies into six categories (memory, cognitive, compensation, metacognitive, affective and social). Another classification was made by Mokhtari and Sheorey (2002) as global, problem-solving and support strategies. However, unlike O'malley and Chamot (1990) and Oxford(1990), Mokhtari and Sheorey's division presupposes a metacognitive strategy (Bedle, 2017).

Given various classifications of RSs made by different scholars, Oxford's taxonomy of LLS is considered in relation to the current study because (1) it contains a variety of RSs;(2) it is acknowledged as comprehensive and applicable for EFL learners, and (3) it is mostly recommended by various EFL researchers. Despite the concept of LLSs varying regarding L1, L2, or FL contexts, Oxford states that most LLSs can be applied in the same way in both L2/ FL contexts. Oxford divided language learning strategies (LLSs), into two main categories; direct and indirect strategies which were further subdivided into six classes (memory, cognitive, compensation, meta-cognitive, affective, and social strategies). Direct strategies are divided into memory, cognitive, and compensation strategies whereas, indirect strategies involve meta-cognitive, affective, and social strategies. While direct strategies focus on how to learn a new language and need mental language processing, indirect strategies focus on the general management of language learning and offer indirect support for students learning. Each strategy category involves several subdivisions. The six strategy categories are discussed as follows.

Memory strategies

Memory strategies are related to the way students remember language. Memory strategies are considered powerful mental tools that help students store and retrieve new information; these strategies are specific devices or techniques used by learners to make mental linkages that will allow new information, most often vocabulary, to enter and remain in long-term memory (Oxford 1990). She stated that strategies such as semantic mapping, grouping, or using imagery have highly specific functions.

Cognitive Strategies

Cognitive strategies are mental processes that are related to the way students think about their learning are vary a lot, ranging from practicing to receiving and sending messages to analyzing to creating structure (Oxford, 1990). Strategies for practicing is one of the important cognitive strategies which includes repeating, recognizing and using formulas and practicing naturalistically. Reading a text again and again to better understand is one of the practicing strategies. Strategies for receiving and sending messages are known as getting the idea quickly, which include skimming and scanning and using resources (like dictionaries). Analyzing and reasoning strategies are also cognitive strategies. Using these strategies learners tend to reason out the new language. They construct a formal model in their minds based on analysis and comparison, create general rules, and revise those rules when new information is available. Determining the meaning of a new expression by breaking it down into parts (e.g., un-breakable) is one of the techniques of analyzing. To understand better, learners need to structure all inputs that they got from reading materials into manageable chunks by using strategies such as taking notes, summarizing, and highlighting (Ibid). Predicting, summarizing, and guessing meaning from context, making inferences and using imagery for memorization are examples of cognitive strategies (Oxford, 1990).

Compensation Strategies

Compensatory strategies (for example, guessing intelligently; and using linguistic and other clues) help the learner make up for missing knowledge for all skills (Oxford, 1990). The author noted that compensation strategies enable students to compensate for their inadequate knowledge, especially grammar and vocabulary limitations. In other words, learners try to make up limited knowledge whenever they encounter unfamiliar words or expressions. Guessing intelligibly, switching to a mother tongue and getting help are examples of compensation strategies. When there are no linguistic clues learners have still another option, they can use non-linguistic clues to guess the challenging one. These clues may come from knowledge of context, situation, text structure, topic, or general world knowledge. Oxford (1990) highlighted that “learners can understand a lot of language

through systematic guessing, without necessarily comprehending all the details'' (p. 90). She underlined that Compensation strategies are among the important strategies for beginners and intermediate learners.

Metacognitive Strategies

According to Oxford 'Metacognitive' means beyond, beside, or with the cognitive. Metacognitive strategies (such as self-monitoring and self-evaluating) are actions that go beyond purely cognitive devices and provide a way for learners to plan, monitor, evaluate and coordinate their learning process. Examples of these strategies include centering learning, arranging and planning to learn and evaluating someone's learning (Oxford, 1990). According to this author learners' metacognitive strategies allow them to be responsible for their language learning, and metacognitive reading strategies provide a way for learners to coordinate their learning process. O'Malley and Chamot (1990:8) state that "Students without metacognitive approaches are essentially learners without directing and ability to review their progress, accomplishments, and further learning direction."

Affective Strategies

Affective strategies are concerned with students' feelings. The term "affective" which is categorized under indirect strategies, refers to emotions, attitudes, motivations, and values. According to Brown (2007), the affective domain spreads out; this encompasses self-esteem, attitudes, motivation, anxiety, extroversion, inhibition, risk-taking, and tolerance for ambiguity. Affective strategies enable learners to gain control over their emotions, attitudes, motivations, and values. They exist with three main sets: lowering their anxiety, encouraging themselves as successful language learners when they understand better, and taking their emotional temperature by talking with another person (Oxford, 1990). Examples of affective strategies include: lowering oneself anxiety, self-reward, or self-encouragement.

Social Strategies

Social strategies are concerned with students' learning through interaction with others; they contribute to learning indirectly like the former two -metacognitive and affective strategies.

They enable learners to interact with other people to develop the language. They include techniques such as asking questions when something is not clear or when a student wants to check whether something is correct or not. By doing these learners can get closer to the intended meaning and this aids their understanding. In addition to asking questions, cooperating with classmates or proficient users of the target language helps learners overcome challenges. Becoming aware of others' thoughts and feelings and understanding the target language culture is also another technique in social strategies (Oxford, 1990).

Furthermore, Oxford presents not only the definition and category of LLSs but also the Strategy Inventory for Language Learning (SILL) questionnaire, which is the most prominent and widely used strategy assessment instrument to date (Chamot, 2004). The questionnaire SILL is based on the taxonomies and was originally designed as a tool for assessing language learning strategy used by students at the Defense Language Institute Foreign Language Center in Monterey, California and it was later revised (Version 5.1, 80 items) for foreign language learners with English native language (Oxford, 1990) and learners of English as a second/foreign language (Version 7.0, 50 items). In fact, Chamot (2004) realizes that LLSs are determined by self-reporting, and even though there is a risk of inaccuracy if learners don't report honestly, it remains the sole method to recognize learners' mental processes. Thus for the current purpose, SILL version 7 is appropriate since the participants of the study are EFL students. The strategies adopted to train the participants of the current study are discussed below.

2.6 RSs Adopted for the Present Study

Since the current study aimed to train grade eleven students with a variety of RSs, a combination of memory, cognitive, compensation, metacognitive, affective and social reading strategies were adopted and integrated with reading tasks in grade eleven English textbook. Although each strategy category involves a plethora of RSs, the current study particularly selected: semantic mapping, placing new words into context, imagery, practicing, getting ideas quickly (i.e. skimming and scanning), taking notes, practice, summarizing, highlighting, guessing intelligibly; setting goals and objectives, self-monitoring and self-evaluating, self-encouragement and cooperating. Each of the RSs for used in the current study is discussed in the next section.

Semantic mapping- is a diagram in which the key concept is placed in the middle of the map while the related words are linked with and arranged around the central keyword or idea through arrows and lines (Oxford, 1990). The subject being discussed is written on the board, a chart and an oval are drawn around it, and the students think of words to describe the subject. As they share them, the teacher writes them on the chart in boxes and connects them to the oval with arrows. Semantic mapping is used in the activation of learners' prior knowledge, a strategy that helps readers link previous and current knowledge together (Barrios, 2018) and enhances vocabulary learning. Vocabulary knowledge is necessary for the growth and presentation of language abilities. However, this does not imply that vocabulary should be evaluated in isolation; rather, it should be evaluated in conjunction with language skills such as reading skills (MoE, 2020).

Prediction/guessing - Students can understand a given text by systematically guessing without necessarily comprehending all the details. For this purpose, readers can use linguistic clues (e.g. prefixes & suffixes) and other clues (as titles, headings, and pictures). Students can predict the text before, while, or after reading by analyzing it. Learners' background knowledge (such as knowledge of the target language culture and topic) helps readers to predict what they read. Compensation strategies (using linguistic clues such as previous knowledge, prefixes and suffixes, and other clues such as context or situation, and text structure) are vital to reduce inadequacies of grammar and vocabulary knowledge. For example, prior knowledge of the target or other language may give linguistic clues to the meaning of what he/she reads; using prefixes and suffixes are also important clues to guessing meanings. Text titles, headings, pictures, graphs, text structure and cohesive devices are all other clues that can aid in getting meanings (Oxford, 1990).

Repetition/practice: Repeated reading is known to be an effective technique in promoting reading comprehension; students read a text repeatedly until they reach the desired levels of reading speed and comprehension (Nunan, 2003; Nuttall, 2001).

Getting ideas quickly (Skimming & Scanning): Skimming and scanning are said to be rapid and effective RSs (Nuttall, 2001; Oxford, 1990). While skimming involves searching for the main idea or gist of a text, scanning is a search for specific information (e.g. date,

names). We skim using the text parts such as the introduction, the topic sentences, first and last sentences of the paragraph. We skim before, while & after reading and applied to identify the main idea of the text. Scanning is going through a text for particular information. While scanning, readers are mainly interested in finding the paragraph in which the information they are searching is likely to be included and then rereading the specific paragraph more carefully (Grellet, 1981).

Note-taking: Although taking notes is very important in reading, learners are not taught to use them (Oxford, 1990). The reader writes down the main ideas, important aspects, keywords, a summary of the concepts, or what s/he needs to remember in the form of either text or graphics (e.g. outline, chart, list, diagram, semantic map, and drawing). Key points can be written in the student's language and the target language or a mixture of them depending on the purpose. Teaching students to use techniques such as using note notebooks, semantic mapping T-formation to take notes. Taking notes can be employed before, while & after reading and used to get for main idea.

Summarizing: It is the way of making the condensed, short version of the original passage. While summarizing, we use techniques like pictures or giving titles to what has been read; it involves selecting the relevant information and rewriting. This strategy is used to understand the main idea of the text & to save it in long-term memory. Sometimes it can be more important than taking notes as summarizing is a more condensed form (Oxford, 1990:88).

Highlighting: learners can be benefited by supplementing note takings and summarizing with another strategy called 'highlight'. This strategy is a way of emphasizing major points through coloring, underlining, capital letters, big writing, bold writing, stars, boxes, circles and the like (Oxford,1990).

Guessing Intelligibly: Learners can understand language through systematic guessing without comprehending all the details. The two strategies under compensation strategies are: using linguistic clues and other clues. Prior knowledge of the target and other or own language and analyzing part of speech or using linguistic clues such as Suffixes, prefixes and word order are important linguistic clues. Whereas using techniques other than

knowledge of language go beyond may come from other sources, eg. Forms of address, such as titles and nicknames, help learners to guess the meaning of what they read. Text structure i.e. titles, introductions, summaries, conclusions and transitions are among important clues to understanding the meaning of a text (Oxford, 1990, P.93). It is employed before and while reading to discover the meanings of words & identify the main ideas. The best strategy to identify the meaning of an unfamiliar word is to use context (Smith, 2012).

Arranging and Planning Learning: According to Oxford, this strategy traces different areas. Learners need to help their learning and find ways to language learning by organizing the schedule and environment, setting short and long- goals and objectives, considering task purpose, arranging opportunities to practice (for example, going to a foreign language cinema) and so on.

Self-monitoring and self-evaluation- Both strategies aid students in checking their learning performance. Self-evaluation is concerned with evaluating overall progress. In the case of monitoring, learners take responsibility for their learning; they notice and learn from errors (Oxford, 1990). Learners skim or scan and guess what will come next, and correct any misinterpretation as they move ahead. Good readers can check whether they effectively understand the text (Snow, 2002).

Self-encouragement: Oxford says language learners who expect encouragement from others, often neglect this strategy and do not realize they can encourage themselves. Self-encouragement is a process of taking risks; self-rewarding and making positive statements about oneself before or during reading. It is applied by making positive statements (E.g. Everybody makes mistakes; I can learn from mine! I am reading faster than I was a month ago). It is important to enhance the reading ability and comes from inside the learner. His Affective filter hypothesis, (Krashen, 1981, 1982)) states that if the affective filter is high, it can impede students' language learning improvement; hence, an effective teacher should teach students by promoting low anxiety situations.

Cooperation: Students can collaborate under the direction of the teacher to share and assess the use of strategies (Nunan, 2003). It is a way of interacting with one or more people to improve language skills. Learners work together with peers to solve a problem and

activities with a common goal using small groups in Jigsaw reading activities; it encourages cooperation with peers/learners' discussion in a group. This strategy also involves working with other proficient speakers of the language or native speakers outside of the classroom. It facilitates reading comprehension and develops learners' ability to cooperate with others. It is used during all reading stages (Oxford, 1990)

In sum, most of the strategies discussed so far, have been selected for this study because (a) they have been capitalized by different pioneer experts. For example, Grabe (2009) recognizes that predicting, skimming, summarizing, and repeating, are among strategies used by good readers. (b) they have been under investigation with related studies in different contexts with positive outcomes and recommendations for EFL readers. Concerning practice, for example, reading again and again is said to be the best way to understand difficult texts. Cooperating is referred to as learning to work with peers - completing tasks, gathering information, solving problems, and obtaining feedback (Nunan, 2003).

2.7 Reading Skills vs. Reading Strategies

Reading comprehension is a complex ability as it requires applying several unconscious and conscious strategies to determine the accurate text meanings (Jeon & Yamashita, 2014). That is why confusion has existed about the distinction between skill and strategy in literature. Concerning this, Afflerbach et al.(2008) stated that there have been overlaps between scholars in the use of skills and strategies; however, “The term reading skills have been used in reading curricula for teachers and K–12 students for at least 50 years. In contrast, the term strategies became popular in the 1970s to signify the cognitive aspects of information processing” (P.365). While skill is related to the proficiency of complex action, strategy is about a deliberate and systematic act (Ibid).

There has been a concern about whether strategies are perceived as intentional or unintentional actions (Alkhaleefah, 2016). Strategies can be defined as conscious actions taken by learners to achieve desired goals or objectives, and skills are strategies that have become automatic (Nunan,2003).In other words, students are assisted to practice and use strategies deliberately while doing certain activities until they start to apply them

unconsciously. Comprehension is a complex ability as it requires applying several unconscious and conscious strategies to determine the accurate text meanings (Jeon & Yamashita, 2014). According to Grabe (2009) “Strategies are cognitive processes that are open to conscious reflection but that may be on their way to becoming skills”(P.221). On the other hand, skill is an automatic strategy, and students need to be explicitly taught strategies until they use them in an unconscious manner (skills) to solve reading difficulties (Ibid).Hence, “The goal for explicit strategy instruction is to move readers from conscious control of reading strategies to unconscious use of reading skills” (Nunan, 2003, P.77), which is the intention of this study.

Thus, from the explanations and definitions given about skills and strategies so far, we can understand that strategies can be intentionally done by a learner while tackling a certain text but through practice, strategies would be developed into skills after a reasonable duration of time.

2.8 Factors Affecting the Use of RSs in Reading

The literature generally highlights the benefits of LLSs for students' better language learning in general and efficient reading in particular. However, studies in this field have demonstrated that different learners employ LLSs in different ways, and several variables may affect ESL/EFL learners' strategy use, (Oxford & Amerstorfer, 2018; Rahimi et al., 2008). The factors affecting learners' strategy use in reading comprehension have been generally categorized as situational (e.g., classroom setting & teaching method, tasks) and individual (e.g. age, motivation, and gender) (Yang, 2016). Learning strategies take into account both the learner's processing preferences and the learning setting (Chamot, 2005). Both situational and individual factors may affect students' strategy use in reading either directly or indirectly. However, research has demonstrated that the following variables have a profound impact on learners' utilization of various strategies (Rahimi et al., 2008; Yang, 2016).

Selection of texts: a passage/text used for strategy instruction is another factor, and choosing a well-situated reading text/passage is said to be very important in implementing strategy-based instruction. The selected texts should be organized in a way suitable to apply

comprehension strategies (Duke & Pearson, 2009). In this study, the reading passages (in students' textbooks) were believed as suitable for teaching students using the intended RSs.

Proficiency level: The relation of language proficiency with the selection of strategies and frequency of use has been widely researched. Rubin (1975) suggested that the use of LLSs depends on several variables, including the level of proficiency, and when students' progress to higher levels of proficiency, they make more use of strategies. Majority of studies point out students from different age groups with higher language proficiency use more strategies, more frequently than students with lower proficiency (O'Malley & Chamot, 1990; Oxford, 1990; Plonsky, 2011; Rubin, 1975). Various L2 learning theories and research results show that good readers use different RSs effectively, and using these strategies improves the ability of L2 learners to read (Maeng, 2014).

Motivation- is said to be a key factor in learning strategies (Yang, 2016). For example, (Oxford & Nyikos, 1989) studied the effect of motivation along with other factors on strategy use and found that motivation was the most important factor in students' influencing strategy use. According to Krashen (1982), motivation is one of the affective variables in L2 acquisition, and learners with high motivation generally perform better.

Age: Various studies' results have shown that age is a strong determinant of strategy choice and of the ability to report them, as different age groups use different strategies both on an individual basis and as categories. In general, older students are more aware of their use of strategies, can use them more spontaneously, and can regulate their learning process better than young learners (Brown et al. 1983 as cited in O'Malley and Chamot 1990: 106; Chamot, 2005).

Gender: several studies have found that females tend to utilize more strategies compared to males (Oxford & Burry-Stock, 1995). According to Karizak and Khojasteh (2016), while some researchers found no significant differences between male and female students in reading ability or RSU after strategy training, other studies found that women outperformed males at one time and males did better at other times. They also underlined that there are "gender-oriented texts" which are yardsticks for males' and females' choice of learning strategies. In other words, males' and females' choice of RSs during reading

depends on the type of text they prefer. However, gender was not treated in this study which can be a weakness.

Beliefs: learners' beliefs about the effectiveness of strategies on their language learning have attracted several researchers (Carrell, 1989; Wenden, 1991).

Culture: In literature, it has been mentioned that the strategies deployed by learners differ considerably from one country/place to another. "Language learning is fully situated within a given cultural context," (Oxford, 1996). Culture constitutes an important variable in learning strategy research because an individual's culture as a learner is made up of his or her beliefs, perceptions, and values concerning language learning, which are formed from prior formal or informal educational experiences. According to Chamot(2005), because learning strategy instruction has been shown to improve performance on first language tasks such as vocabulary learning & reading comprehension, it is likely that it could prove equally helpful for language learners in these and other L2 tasks. Moreover, Oxford and Burry-Stock (1995) underline that; there is a need to replicate language learning studies within and across cultures and countries to avoid 'ethnocentric bias' concerning the definition of good language strategies. In this context, the current researcher is interested in bringing those L2 reading strategies and teaching students in the local context where English is not our L1.

Learning Style- has strong links with students' strategy use, (Nunan, 2003; Rahimi et al., 2008). Individuals' learning styles affect the type of LLSs they use, for instance, while extroverts employ a strong preference for social strategies, introverts utilize metacognitive strategies more frequently Ehrman and Oxford, (1990)

In general, Yang (2016) pointed out that classroom teachers need to consider such factors to make strategy training effective; however, it is unfeasible to sufficiently handle or control all the variables during the time of investigation (Chamot,2005).In a similar vein, some of the factors/variables discussed were not sufficiently controlled in the current study.

2.9 Issues in LLS Training

It is worth mentioning that L2/FL learning strategies are claimed to be effective in improving learners' performance in general and reading skills in particular, however, as far as second language acquisition (SLA) is concerned, several issues remain unresolved in the literature. For instance, the definition, the context, the frequency and the types of strategies to be taught, and the methodological aspects of the intervention have been debated among researchers (Macaro, 2006; Maeng, 2014; Plonsky, 2011). In his meta-analysis, Plonsky pointed out that despite the significance of L2 strategy instruction to learners' performance, several issues (for example, the context where strategies are instructed, which strategies, how many of them, and how they can be taught, learners' proficiency and the dependent variables including reading skill, remain unresolved. In general, as far as the researcher's reading experience is concerned, several issues have been raised by researchers and experts, and some of the issues are briefly discussed below.

2.9.1 Separate vs. Integrated Strategy Training

One of the issues with strategy training is whether to use a separate or an integrated training model (Chamot, 2005; O'Malley & Chamot, 1990). Separate and integrated models include separating the strategy instruction from what is taught in the language classrooms in the former and combining the strategy instruction with the classroom material in the latter (O'Malley & Chamot, 1990; Oxford, 1990; Chamot, 2005). According to O'Malley and Chamot (1990), "Arguments in favor of separate training programs advance the notion that strategies are generalizable to many contexts and that students will learn strategies better if they can focus all their attention on developing strategic processing skills rather than try to learn content at the same time..." (P. 152). "Those in favor of integrated strategy instruction programs, on the other hand, argue that learning in context is more effective than learning separate skills whose immediate applicability may not be evident to the learner...and that practicing strategy on authentic academic and language tasks facilitates the transfer of strategies to similar tasks encountered in other classes..." (Ibid, P.152). Rather than offering a distinct learning strategies course, teachers need probably to incorporate the training into their regular coursework (Chamot, 2004). Hence, the current

researcher followed the integrated strategy training model to train learners in the experimental group using the adopting RSs from the literature.

2.9.2 Implicit vs. Explicit Strategy Teaching

Learning strategy teaching can be either explicit or implicit, and in the discipline of SLA, there has long been debate about the efficacy of explicit and implicit strategy teaching (Bueno-Alastuey & Agulló, 2015). Explicit instruction means teaching strategy directly, intentionally, and systematically, whereas implicit instruction means that strategies are not explicitly taught in systematic ways (Oxford, 1990). An implicit approach is an embedded approach, and a trainer who chooses this approach sets language tasks intended to make students employ learning strategies to help them accomplish the tasks, but the trainer does not inform students about the role of the strategies, when and how to use the strategies (O'Malley & Chamot, 1990; R. Oxford, 1990; Wenden, 1991). According to O'Malley and Chamot (1990) and Oxford (1990), this approach has two merits. Firstly, as the strategies are embedded, it reduces the risk learners may oppose the training. Besides, "little teacher training is required....As students work on exercises and activities, they learn to use the strategies that are cued by the textbook" (O'Malley and Chamot, 1990: 153). However, according to some writers, the implicit approach has weaknesses. For example, it does not make students take on more responsibility for their learning O'Malley and Chamot (1990); it does not make learners use strategies flexibly in a variety of contexts and maintain strategies over time (Rubin, 1975; Wenden, 1991).

As a result, studies on language learning strategy L2/FL context indicate that explicit strategy instruction is likely to be more effective than implicit or non-integrated instruction, (Chamot, 2005; Gu, 2019; Jiang & Grabe, 2011; Oxford & Amerstorfer, 2018). Similarly, it has been said that implicit and explicit instruction has attracted researchers in the field of teaching reading; however, explicit instruction is recommended as a vital instrument for teaching reading in ESL/EFL contexts (Shen, 2003). Based on Khellab et al. (2022), students could attack difficult tasks if they are explicitly taught a repertoire of strategies. Explicit strategy instruction does not mean simply telling learners to use strategies; rather, it involves discussing with learners what strategies are (declarative knowledge), when, where and why to use them (conditional knowledge), and how they can be used (procedural

knowledge) to facilitate students' learning (Al Raqqad et al., 2019; Chinpakdee & Gu, 2021b; Gu, 2019; Manoli et al., 2016). On the other hand, in the case of implicit strategy teaching, the teacher does not directly inform students about the role of the strategies, when and how to use them, rather he or she designs tasks that require students employ strategies (O'Malley & Chamot, 1990; Oxford, 1990).

To sum up, the central point of explicit instruction is to create strategic readers who automatically coordinate their strategy use (Koda, 2005). Thus; this study used the explicit and integrated strategy training model teaching to train learners that is expected to improve learners' reading comprehension and help them to transfer strategies.

2.9.3 Multiple vs. Individual Strategy Training

Researches on L1 reading comprehension postulate that reading instruction that focuses on students' coordinated utilization of multiple strategies to negotiate the meaning of the text is more efficient than individual strategy training (Baker, 2002; Duke & Pearson, 2002). It has been stated that, regardless of his/her proficiency level, every reader faces comprehension impairment of one sort or another, especially in more challenging content; however, the difference between successful and less successful readers is that the former usually recognizes the nature of the problem, applies various strategies, and monitors comprehension to find ways to overcome comprehension barriers and achieve comprehension tasks (Anderson, 1991; Grabe, 2009; Koda, 2005). Furthermore, researches conducted in different learning contexts suggested that multiple strategies (rather than individual) instruction improves EFL learners' reading performance (e.g., Jiang & Grabe, 2011; Manoli et al., 2016).

Dawit (2014) noted there are two waves of research on reading strategies instruction suggested in the literature. The first wave includes those individual strategies that proved their worth in improving students' reading comprehension; the second wave of research includes those involving multiple strategies. Teaching multiple strategies (rather than isolated individual strategies) increases learners' comprehension (Block & Duffy, 2008). Many approaches derived from such research aim to develop a strategic reader who can use multiple strategies while reading and comprehending a text, rather than an individual

strategy (Grabe, 2009). These approaches can be adapted more specifically to a second or foreign language curriculum, to help reading teachers accommodate their classroom strategy instruction with maximum achievements (Ibid). According to Razi (2014) who studied strategy instruction on EFL learners noted that “Presenting a repertoire of reading strategies is preferable as a single strategy may not fit all readers” (P.339). As a result, considering our students’ preferences for LLSs in tackling reading tasks, the current researcher would like to use a combination of multiple strategies that were selected from all reading strategy categories (memory, compensation, cognitive, metacognitive, social and affective) while teaching reading skills in EFL classes.

2.9.4 Strategy Teaching Models/Frameworks

Although there is a general agreement between researchers and experts on the importance of L2 /FL strategies, there has been little agreement on how to support learners to employ strategies for language learning and use them (Plonsky,2011). As a result, various FL/L2 teaching models; for example, (Chamot and O'Malley and Oxford training procedure; K-W-L (Know, Want to know, Learned); Reciprocal Teaching Procedure; Transactional Strategies Instruction, and the Cognitive Academic Language Learning Approach (CALLA) have been mentioned in literature.

CALLA was developed in the United States by Chamot and and Omllay (1990) to help English-language learners of immigrants with learning difficulties. According to Chamot and Robbins (2005) CALLA incorporates instruction in important topics from the content course, the language skills needed for learning in school, and explicit instruction in using a variety of learning strategies for academic tasks, and it can be applied in L2, FL or EFL contexts. These components, according to Gu (2019); Chamot and Robbison(2005) are taught in the following five-instructional phases which allow teachers’ gradual release, and encourage students to be autonomous learners. The five instructional phases are:(1) preparation: the teacher introduces the daily topic then activates learners’ prior knowledge followed by the introduction of specific strategies; (2) presentation: the teacher demonstrates new learning strategies and explains how and when to use them; (3) practice: learners practice reading using the strategies with regular class activities; (4) evaluation: learners self-evaluate their use of the learning strategies and how well the strategies are

working for them and (5) expansion: learners are encouraged to transfer the learning strategies and apply them to new situations and other content areas. The effectiveness of the CALLA model on learners' reading ability has been also proved by foreign EFL researchers (Habók & Magyar, 2019; Li et al., 2022).

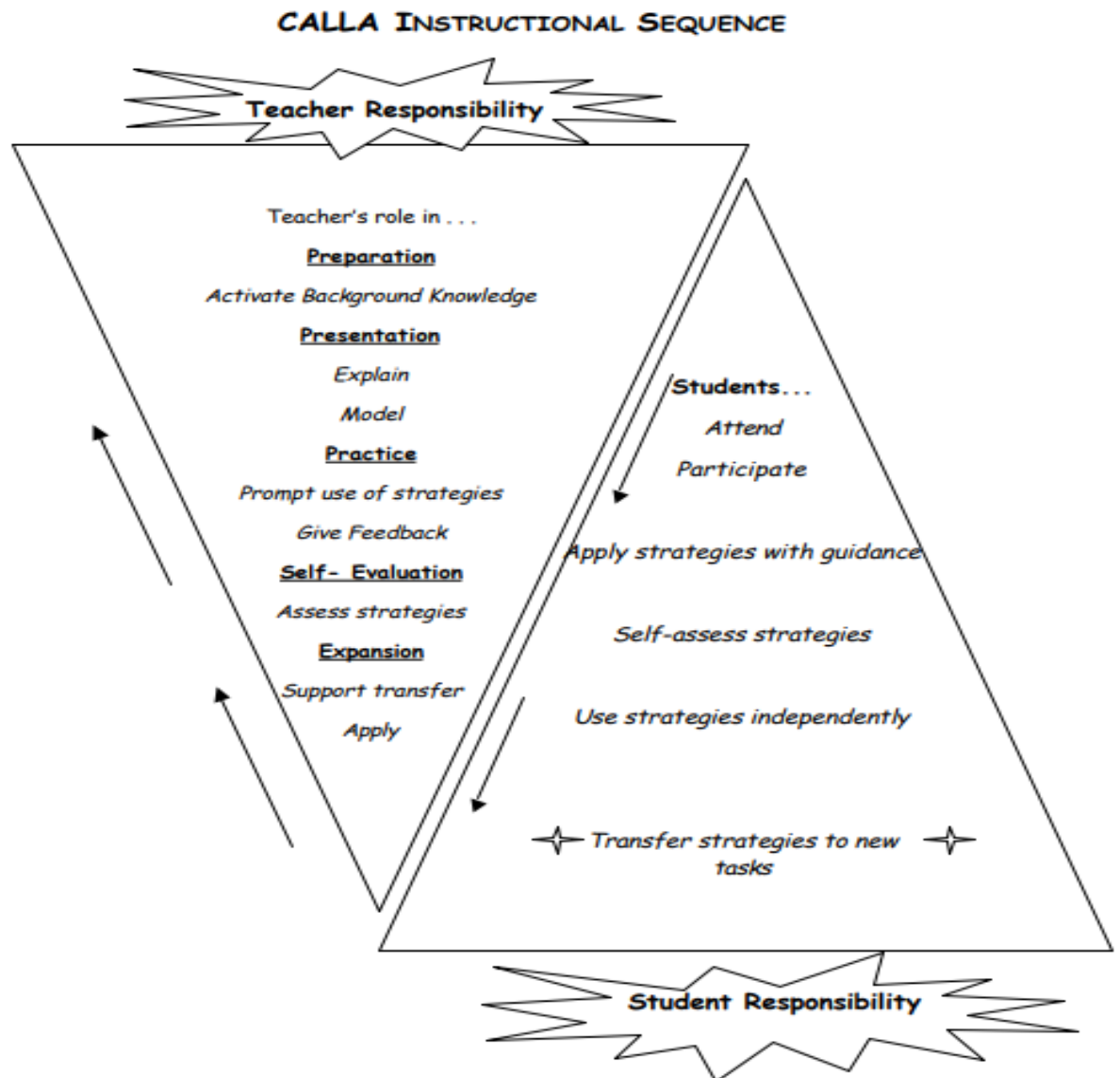


Figure 1 CALLA teaching model adopted from Chamot and Robbins (2005)

The triangle in Figure 1, shows both teachers' and students' responsibilities. As can be seen at the beginning, the role of the teacher is wider since he/she is expected to introduce the

topic and activate learners' background knowledge followed by a presentation, explanation and modeling of the target strategies. The teacher explicitly teaches and demonstrates why, when and how a specific strategy is used in learning a certain subject. Gradually, the students widely practice the learned strategy with the support of the teacher and evaluate their success. Finally, the teacher helps students evaluate their use of strategies and encourages them to apply strategies they learned to the new tasks and other content areas outside of the classroom. The teacher scaffolding is gradually removed by helping students to transfer strategies to new tasks and move them toward independent strategy users. Hence, scaffolding is an important aspect of teaching strategies within this model.

Therefore, in this paper, CALLA was adopted as a teaching model to implement LLSs instruction during reading classes because as discussed before it, (1) involves explicit instruction in a variety of strategies,(2)allows gradual releases of teacher scaffolding and helps learners to become independent readers,(3) help learners to transfer strategy to new tasks and other content areas, finally, (4) the model is applicable in EFL contexts and its efficacy of this model in enhancing EFL learners reading ability has been proved.

2.10 The Role of RSs Instruction in Reading Comprehension

To achieve the desired results, students must learn how to use a variety of RSs to match their reading objectives, and rather than posing comprehension questions to students after they have read a passage, a teacher can demonstrate to the class how to achieve comprehension (Nunan, 2003). Hence, teaching students different strategies and techniques used by skilled readers can greatly improve their ability to understand written material (Duke & Pearson, 2009). Many scholars agree that skillful learners use a repertoire of strategies to improve their reading abilities(Grabe, 2009; Grabe & Stoller, 2019; Maeng, 2014; Nuttall, 2001),and assisting our students in learning the strategies employed by proficient readers can enhance learners' overall understanding of written material (Duke & Pearson, 2009). Examining 13 studies conducted on the effect of strategy training on EFL students' reading, Al Raqqad (2019) reported that reading strategy training appears to improve the comprehension of EFL learners' reading, indicating the difficulty of explicitly stating whether some reading strategies are more effective than others. However, given the

role of explicit strategy teaching in promoting L2/EFL students' reading comprehension, it has got some criticisms that are discussed as follows.

2.11 Criticism of LLSs Instruction in Reading

Although the notion of strategy training has been attracting several researchers in the field of L2/FL language learning, the literature reveals that the concept of learning strategies is not without criticisms in its theoretical as well as practical aspects. Many issues concerning LLSs, for example, the definition given to LLSs, the methodology used to elicit, measure, and classifications made, and the lack of theoretical rigor of learner strategy research, have received criticism (Macaro, 2006; Plonsky, 2011). In his meta-analysis, Plonsky pointed out that despite the significance of L2 strategy instruction to learners' performance, several issues (for example, the context where strategies are instructed, which strategies, how many of them, and how they can be taught, learners' proficiency together with the dependent variables including reading skill, remain unresolved. After collecting studies conducted on the effectiveness of RSs instruction in L2 context, Maeng did a comprehensive meta-analysis and reported that there were negative and mixed results about the impact of strategy instruction on L2 reading.

Similarly, with regard to EFL RSs, Al Raquad (2019) analyzed thirteen empirical studies conducted in relation to RSs training in the EFL context, and reported that the results of research in the reviewed literature suggest that teaching reading strategies seems to improve learners' reading comprehension; however, the authors remind the reader that it is not yet clear whether some strategies are better than others. Furthermore, after collecting 37 empirical studies conducted on the effect of strategy training on L2 reading, Meang (2014) did a met analysis and found that several studies reported positive effects of explicit strategy instruction on L2 reading comprehension; however, the positive results have been conducted in various learning situations (for example, L2/FL), settings (secondary and elementary schools), treatment (the type and number of strategies). Maeng pointed out there were negative and mixed results, and he commented with such questionable outcomes, it is challenging to ascertain the overall effect of strategy instruction on learners' reading comprehension.

Regardless of such criticisms, a lot of empirical evidence has still demonstrated that explicit strategy instruction has positive outcomes for EFL students' success in reading skills. Accordingly, a significant amount of empirical studies conducted in both foreign and local context, are briefly discussed in the following section.

2.12 Empirical Studies

The present researcher reviewed both local and international related studies that have been published in reputable journals. Accordingly, it was noticed that the effectiveness of RSs use in L1, L2 and FL contexts has been under the focus of various researchers around the world. Concerning this, Habok and Magayer (2019) indicated that EFL students' RSU has been among the key areas of FL strategy research. In such context, internationally, a significant number of studies have been done on the impacts of explicit strategy instruction on EFL learners' reading comprehension. For example, Fathi and Afzali (2020) investigated the 'Effect of Second Language Reading Strategy Instruction on Young Iranian EFL Learners' Reading Comprehension'. They employed a quantitative approach and quasi-experimental design. Using the two intact groups, the students were assigned to experimental (N = 25) and control groups (N = 23). Students' homogeneity in terms of their general English proficiency level was identified through a pretest, then the experiment group received RSs instruction that was integrated into the regular reading instruction for twelve weeks. Both groups were taught by the same teacher. Using pre and post-reading tests, the findings of their study revealed that after receiving strategy interventions, the experimental group was more successful in reading comprehension than the control group. Similarly, employing, a quasi-experimental design with the control and experimental group, Zhang (2008) did a two-month strategy reading intervention; the result showed that strategy instruction improved ESL learners' reading performance and promoted their participation in strategic reading. Finally, Zhang noted that some strategies seem to require more cognitive practice for learners, so activating them may require more practice.

Furthermore, Wichadee (2011) studied the effectiveness of explicit instruction of metacognitive strategies on learners at a private university in Thailand; questionnaires, tests and semi-structured interviews were used as data-gathering tools. The finding indicated that strategy-based instruction could improve reading test scores and contribute

to learners' increased awareness of the use of strategies by learners. The author pointed out that while most students seemed more prepared to adopt strategies in reading, low-performing students may need more practice to understand how strategies are used. However, the study employed metacognitive strategies and did not have a comparison group. Moreover, Yapp et al. (2021) examined 'the effects of RSs instruction on EFL students' academic reading comprehension'. 801 first-year polytechnic students received training on seven RSs during reading classes for seven weeks. The study pointed out that in L2 teaching programs, the explicit instruction of reading strategies can benefit students, especially because the RSs that were taught in the first language (L1) are not transferred to L2. Similarly, Chinpakdee and Gu (2021) researched the impact of explicit strategy instruction on EFL secondary school reading. A total of 62 students participated meaning that 30 students were assigned to the experimental group where 32 of them were assigned to a comparison group. Some strategies were presented and introduced to the intervention class for a semester. The reading test, thinking aloud and group interviews were employed as data-gathering tools. The finding pointed out that students in the intervention class outperformed the comparison class in their post-reading test; the group interviews also indicated that students had positive attitudes towards the treatment.

Hence, although the empirical evidence discussed so far recommended the effectiveness of explicit strategy instruction in enhancing learners' EFL reading comprehension, studies that employed various RSs in combination seem lacking, which can be taken as a gap, and previous researchers who calculated effect size seem lacking. Moreover, all the reviewed studies have been conducted abroad different from our context. Therefore, the present researchers noticed that further investigation is needed on the effectiveness of explicit RSs instruction in combined strategies to improve learners' reading comprehension in the local context.

Furthermore, some related studies have been conducted in the local context. For example, employing a quasi-experimental design, Rahel et al. (2018) studied the effect of explicit reading strategy training on the reading comprehension achievement and reading self-efficacy of Grade 11 students at Jimma Preparatory School. Using, reading comprehension tests and self-efficacy questionnaires as data-gathering tools, they found that students in

the experimental group benefited more than the control group in reading comprehension achievement and reading self-efficacy after strategy training. Likewise, Benti et al.(2017) examined the effect of reading strategy training on grade 9 students' reading achievement'; the study concluded that reading strategy training brought a significant difference between the control and experimental groups in their reading achievements. Moreover, recently, Geleta et al. (2023) investigated the effectiveness of explicit reading strategies on grade 9 students' achievement in reading comprehension around Wollega. Assigning 33 students to the control and the rest 35 students to the experimental groups, the authors confirmed the benefit of explicit strategy instruction in enhancing students' reading ability. However, many gaps have been identified in the aforementioned studies that were briefly discussed under the problem statement. Accordingly, the present study assumes that explicit teaching in various RSs in combination would promote EFL learners' reading ability. The following section explains the theoretical framework adopted for the current study.

2.13 Theoretical Framework

Literature discloses that since the concept of reading is a complex phenomenon and interrelated with various theories, it has been difficult to find a single theory that supports a single method for teaching reading. As a result, various learning theories including, cognitive, constructivism, social constructivism and sociocultural, try to explain the process of learning and teaching reading. Macaro (2006) argued that according to cognitive theory, strategies are located in the brain, though there are many unresolved issues that undermine the theoretical basis of the research on learner strategies. Alexander and Fox (2004) said the cognitive theory, which sees reading as a 'mental process', focuses on the employment of background knowledge in understanding a text and information processing skills, for example, analysis of syntactic structure, identification of text cohesion and exercising text structures which are then conscious cognitive skills, involving analysis and interpretation of printed material. Explicit instruction is rooted in cognitive theory (Shen, 2003), and this theory considers reading as an active process of involving readers' interaction to understand the text (Dole, 2000). The cognitive theory assumes strategy instruction in teaching reading comprehension; however, the theory seems to give priority to learners to control their learning to read because it looks to focus on individuals and

overlooks the role of social factors such as cooperative learning in shaping reading skills (Ghafar & Dehqan, 2013; Tekle, 2016). On the other hand, similar to cognitive theory, sociocultural theory emphasizes cognitive development; however, unlike the former, the latter (sociocultural) gives priority to social factors followed by individual factors (Ghafar & Dehqan, 2013). The constructivist theory has also influenced the field of teaching reading. Supporters of the constructivist theory claim that meaning construction occurs when the learner 'actively' participates in the reading process (Geleta et al., 2022).

However, it can be noticed that, like the cognitive theory, the constructivist view seems to give more consideration to the role of the individual learner and seems to ignore collaborative works (such as peer works and teacher's scaffolding). Therefore, the constructivist view, which considers learners as active participants in the learning process also seems to overlook the role of social factors. As a result, proponents of sociocultural theory, (henceforth, SCT) argue that students need to work in collaboration and should be assisted by more knowledgeable people to improve learners' performance.

Consequently, Vygotsky's SCT which recognizes the role of social factors in the teaching-learning process, has become the focus of researchers. The pioneer of SCT, Vygotsky notes that cognitive and social development are both needed to foster learning, but social interaction plays an essential role in the development of cognition. This theory views human development as a socially mediated process in which children acquire their cultural values, beliefs, and problem-solving strategies through collaborative dialogues with more knowledgeable members of society. Oxford and Alm (2019) briefly state the following:

In Vygotsky's theory, the more able person (teacher, parent, more advanced peer), mediates learning by holding rich, contextualized dialogues with the learner. During these dialogues, the more capable other mediates by modeling mental functions (we justifiably call them strategies), such as analyzing, synthesizing, planning, summarizing, and monitoring, and guides the learner through the zone of proximal development or ZPD, i.e., the area the learner can traverse with assistance (P. xxv)

The two important concepts, scaffolding and Zone of Proximal Development (ZPD) were grounded in Vygotsky's (1978) sociocultural theory, and ZPD is related to the difference between the first stage of understanding a concept and the level at which a problem is solved under the guidance of a teacher or in collaboration with more knowledgeable peers or individuals. It is about how developmental change is generated through the support of others; Clark and Graves (2005) noted that ZPD clarifies the vital role of teachers as mediators and is central to the concept of scaffolding. In view of this theory, the support given to learners by a more knowledgeable person is said to be scaffolding (Salem, 2017). As to Clark and Graves (2005) scaffolding is an 'adaptable and flexible' teaching model, which enables teachers to explicitly teach strategies to help students become independent readers and transfer strategy use. Oxford (2011) realizes that Vygotsky's 'higher psychological processes' that can be developed through social interaction, are currently referred to as 'strategies'.

However, Vygotsky's (1978) sociocultural theory has received some criticism from experts and researchers. For example, Ameri (2020) indicated that sociocultural gives priority to societies ignoring individual roles, also it does not appear to apply to all social and cultural groups. ZPD was also critiqued for being unclear and for not explaining how developments in a child happen; the term scaffolding is not explicitly indicated in Vygotsky's sociocultural theory. Despite such criticisms forwarded to SCT, however, the theory still becomes a continual source of debate among scholars. According to Ameri, in Vygotsky's theory, ZPD would be important for classroom teachers; they could first identify students' current skill level to give appropriate assistance to them, for example, the teacher arranges situations in a way less skilled students could work with more skillful students.

All in all, based on the nature of the study involving assessing students' current reading ability and RSU before the intervention, the present study aims to assist students in improving their reading through explicit combined RSs training. Although the current study shares a variety of elements from different learning theories, it is closely (if not certainly) aligned with the SCT because this theory involves the support (scaffolding) given to learners for the reading comprehension process done by the teacher and learner with learner until independent learning occurs. This means that teacher scaffolding and

student involvement (such as group work) are fundamental to developing independent reading. Once students can apply the learned strategies in reading, the teacher support can withdraw. In line with this Ahmadi and Gilakjani (2012) noted that after helping learners to read independently, teacher scaffolding can be reduced.

2.14 Conceptual Framework

The purpose of this study was to find out the effect of explicit combined reading strategy instruction on EFL students' reading comprehension performance and RSU. It also aimed at identifying participants' views about the benefit of the training in promoting their reading comprehension performance. Figure 2 below highlights the causal relationship between the independent variable that is, explicit instructions in a combination of memory, cognitive, compensation, metacognitive, affective and social strategies, and the dependent variables (reading comprehension performance, students' strategy use and their views).

Accordingly, an attempt is made to show when explicit teaching in combination with various RSs strategies from the six categories enhance students' reading comprehension. Each of the six strategy categories mentioned in the diagram involves a number strategies (e.g semantic mapping, guessing, taking note, summarization, skimming, self-monitoring, lowering anxiety, cooperation etc...). So, if students are explicitly taught such strategies, they can enhance their reading comprehension, RSU and awareness. The training is based on the five procedures of CALLA (the preparation, presentation, practice, evaluation and expansion) in line with activities in the three reading stages. When, the teacher activates students' previous knowledge of a topics and strategies they use, in pre-reading activities, students follow their teacher and participate; then the teacher demonstrates and explicitly teaches what strategies are, why, and how they are used in reading. Then, the students practice the strategies they learned either in group or individually in reading.

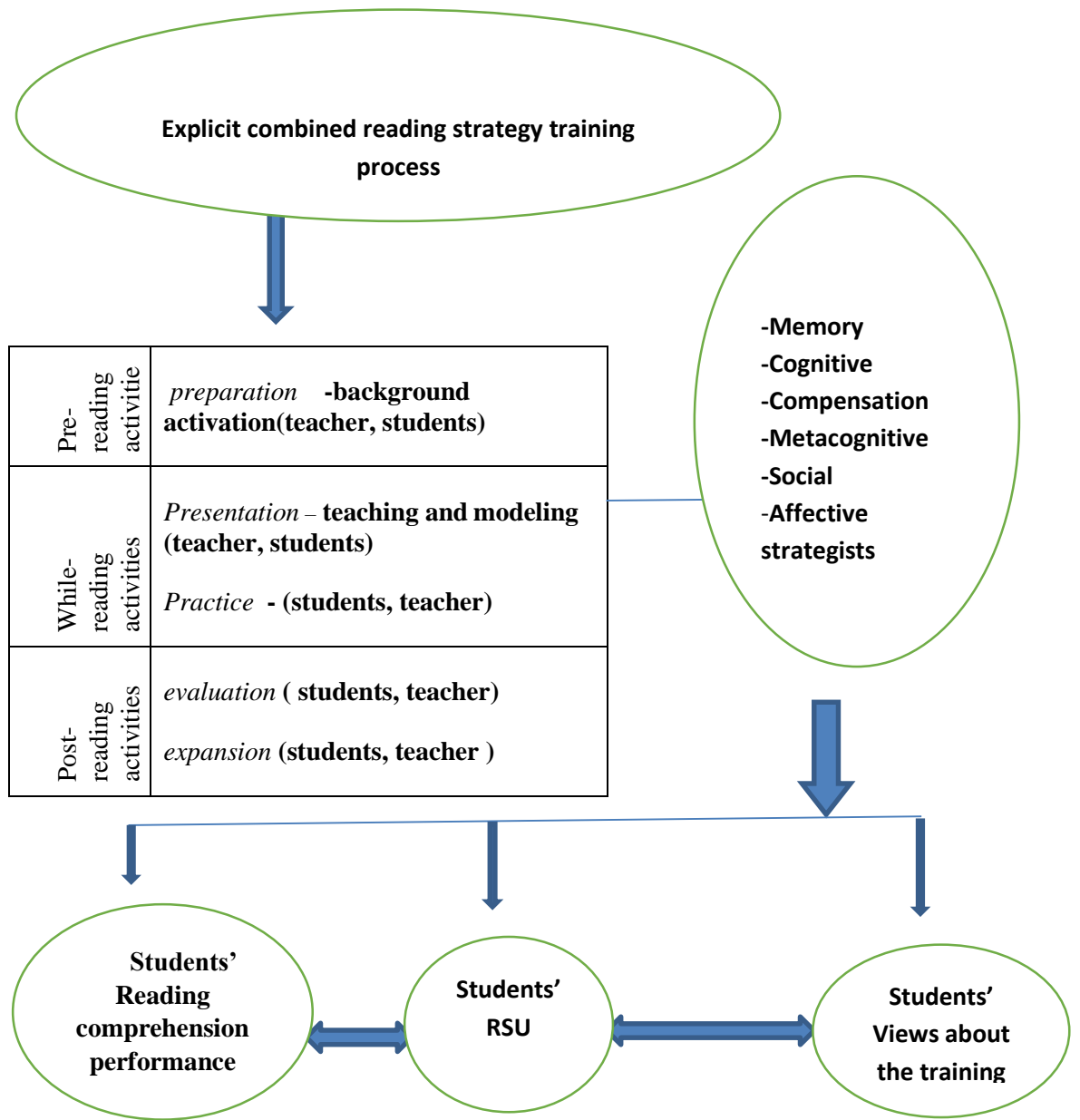


Figure 2 Conceptual framework of the study

For example, during preparation and pre-reading stages, students are asked if they know something about a particular topic of the lesson and if they use any strategies. In the presentation stage, the teacher presents and explicitly teaches particular strategies (e.g. semantic mapping and summarization) and shows students how to use the specific strategies in reading tasks. During the practice and while reading stages, students are given chance to practice the specific strategies they have taught in reading under the guidance of the teacher. The teacher provides feedbacks and support the students when necessary. In

the evaluation stage, students evaluate their success whether or not the strategies they learned help them to read a particular text better. Finally, in expansion and post reading stages, students are encouraged to apply strategies they learned in different tasks even outside of the classroom.

Finally, by supporting and encouraging students to apply the learned strategies to new tasks independently, teacher scaffolding is gradually removed. In this way, students would increase their RSU and develop positive views regarding the benefit of various RSs in reading, which in turn enhances students' reading comprehension performance.

To sum up, referring credible books and articles, chapter two has reviewed several issues related to the topic of this study. From the discussion so far, we can understand that reading is a 'cognitive' and complex term that can't be explained in a simple way. Going through the literature, empirical evidence shows that strategy training can result in better language learning in general and reading comprehension of L2/EFL learners in particular. Hence, teachers should be encouraged to employ strategy training in EFL classrooms and strategy instruction should be integrated into textbooks and lesson plans. On the other hand, from the reviewed literature it is inferred that researchers should cautiously consider different factors/issues while conducting experiment studies on LLSs. In general, it seems that the issue of reading strategy training needs to be further investigated as several issues remain unresolved in the literature. The present study, therefore, attempts to implement combined reading strategy instruction during EFL reading classes to improve grade eleven students' reading comprehension skills in Ethiopia.

The next chapter presents the research design and methodology, which shows the overall journey of the study.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.0 Introduction

This chapter contains various issues including the research design, paradigm, selection of setting and participants, data collection instruments, procedures of the training, validity and reliability issues. Furthermore, ethical issues, the pilot study and data analysis techniques are briefly discussed in this chapter.

3.1 Research Design

Research design is a planned structure or procedural strategy adopted by a researcher to find answers to questions raised in a study (Kumar, 2012), and an experiment is important as it involves making a change in the value of one variable (i.e. the independent variable) and observing the effect of that change on another variable (i.e. the dependent variable) (Cohen et al., 2018). As a result, to investigate whether causal relationships existed between the independent variable (explicit instruction in combined strategies) and the dependent (reading comprehension performance and RSU) variables, this study employed a quasi-experimental design. Although true experiment allows researchers random assignment of participants, it was not feasible to form artificial classes that is why the study used two intact classes that were assigned by the school in which the study was conducted. According to quasi-experimental design, the assignment of participants to groups does not mean random, but there may be intact groups available to the researcher (Creswell, 2014). Thus, a quasi-experimental particularly, nonequivalent (Pretest and posttest) control-group design was adopted because in light of such design, both experimental and control groups take a pre-test and post-test, but only the experimental group receives the treatment (Ibid).

Creswell further notes that quasi-experimental design is exposed to internal validity threats, for example, selection history, maturation, selection bias, instrumentation, mortality, testing, and selection regression during the experiment. In this study, an attempt was made to control such threats (if not totally controlled); for instance, history was not a problem since one English language teacher taught both the experimental and control groups. To minimize the mortality threat, two trainee teachers were prepared to substitute for one another in case of emergency. The same reading activities from students' textbooks were

practiced at the same time and in the same classroom environment. Besides, to minimize the testing effect, the reading comprehension test and questionnaire were administered as posttests after relatively a long period of administering the pretest.

Furthermore, relying on the nature of the four research questions that required quantitative and qualitative data, the study used a mixed approach, particularly, the embedded one, in which both types of data can be utilized. This is because gathering various sorts of data (quantitative and qualitative) is vital, whereas using a single method is insufficient for a better understanding of the research problem (Creswell, 2014). Therefore, different data collection instruments, namely, reading comprehension tests, questionnaires, interviews, and observation were used in this study.

3.2 Paradigm of the Study

While planning to conduct a study, researchers need to think about ‘philosophical views/paradigm, which is according to Creswell and Creswell (2023) referred to as “a general philosophical orientation about the world and the nature of research that a researcher brings to a study.”(P.6) .They focus on the three approaches (quantitative, qualitative and mixed) and mention four schools for knowledge claims: post-positivism, constructivism, transformative and pragmatism. Like the positivist view, post-positivists’ assumptions hold true more for quantitative research than qualitative one, but the former holds objective reality, based on observation and follows scientific procedure, the latter (post-positivism) challenges and represents the thinking of positivism and claims that there is no absolute truth (Cohen et al., 2018; Creswell, 2014).

As to Creswell and Creswell (2023), both constructivism and transformation paradigms emphasize the importance of understanding subjective realities and social constructions. Constructivism, which is considered as typical approach in qualitative research, suggests that knowledge is actively constructed by individuals through their interactions with the world, highlighting the role of personal experiences, beliefs, and perspectives in shaping one's understanding of reality. On the other hand, transformative paradigm focuses on how societal structures and power dynamics contribute to the creation of inequities and

injustices. Transformative paradigm gives voice to participants who are often marginalized or overlooked in traditional research.

According to Creswell and Creswell (2023), pragmatism “arises out of actions, situations, and consequences rather than antecedent conditions (as in post-positivism)” (P.8). In other words, pragmatism allows to focus on a research problem and apply mixed methods, where researchers are free to draw both quantitative and qualitative hypotheses, and it is free to use all available method to produce solutions for a problem. Hence, based on the nature of the research questions (that employ both quantitative and qualitative data), the philosophy of the current research tends to be pragmatism.

3.3 Sample and Sampling Techniques

In this section, all the procedures for the selection of the research site and the participants of the study together with their grade level are discussed.

3.3.1 Selection of the Research Site

This study was conducted in Addis Ababa city administration. The city was chosen as the research site for its familiarity, which helped the researcher to intensively understand the research problem. Moreover, the researcher was informed that there were schools where no student passed the grade twelve national exam during the 2022/2023 academic year. Regarding the selection of the school, Addis Ababa city administration is divided into eleven sub-cities in which different government secondary schools are located. Among the available schools, Tesfa Birhan General Secondary School was purposively chosen from Yeka sub-city for some reasons. First, the researcher was informed that out of 300 students, only seven of them passed the grade 12 national exams during the 2023 academic year. Thus, considering the role of English reading for students’ academic success, the researcher assumed to improve students’ reading ability through training. Frequent complaints have been also heard from EFL teachers about their students’ poor reading comprehension in the selected school. Moreover, the researcher has two friends working in the school so that she can get the needed assistance in the course of data gathering. Hence, the researcher wanted to conduct this study with grade eleven students in Tesfa Birhan Secondary School.

Secondary school was intentionally chosen due to frequent complaints from researchers and English teachers about secondary school students' poor reading comprehension. Moreover, it is a place of *reading to learn* in which students are required to read different subjects in their academic path. In other words, *reading to learn* frequently happens in academic settings where an individual must learn a substantial amount of knowledge from a text (Grabe & Stoller, 2019). University students were not the focus of this study because students at higher education levels are relatively motivated and responsible for their learning. In relation to this, Rubin (1975), a former researcher in LLSs, underlines that the use of LLSs depends on several variables, including the level of proficiency, and as students' progress to higher levels of proficiency, they make more use of strategies.

3.3.2 Selection of Participants

To choose the participants of the study, there were four alternatives in Tesfa Birhan Secondary School as it offers education from grade 9 up to grade 12 level. Grade eleven students were purposively selected. The first main reason was since grade-eleven students have to prepare themselves for national exams after a year, they have to be aware of effective methods (the RSs in this case) that aid them in comprehending the reading passages easily. Additionally, students read different subjects for their academic purposes; hence, working hard at this level seems important to improve students' reading ability as several students have failed university entrance exams for the previous consecutive academic years.

Since there were two streams –natural science and social science, grade eleven students in the social science stream were randomly chosen for the current study. The participants were selected based on the results of the pre-test which was administered to social science students in four sections. In other words, the pre-reading comprehension test was administered to the four available sections of social science students, then two intact sections having closer mean scores were taken and further assigned as a control group (CG) and an experimental group (EG). Hence, both the groups were in the same stream which would be important to control intervening variables related to students' background. It is worth mentioning that the number of participants was ninety at the start of the selection, but three students were excluded during the analysis because they did not properly fill

questionnaire that was administered prior to the training. Thus, the total sample size of the study was eighty-seven. That is, the two sections (N=43) in the CG and (N=44) in the EG, were the samples of the study. Participants of the interview were randomly selected from the EG since random sampling gives an equal chance for all subjects who participated in the training. Then the researcher followed the data saturation technique while deciding the sample size of interviewees.

3.4 Data Collection Instruments

To answer the research questions, data were mainly collected through reading comprehension tests, questionnaires and interviews. Furthermore, observation, check sheets (filled by the teacher) and filed notes were also used to check training condition. In other words, observation and researcher's field notes along with check sheets filled by a trained teacher were used to see how the training was implemented during reading classes. While the reading test and the questionnaire were administered to both the experimental and control groups before and after the training, the interview was conducted with students in the EG after the training to assess learners' views about the training. In this context, each instrument is briefly discussed in the following section.

3.4.1 Reading Comprehension Test

In this study, the reading test was administered as pre and post-tests to gather information about grade eleven students' reading comprehension performance before and after the training. The pre-test was administered before the start of the training to make sure whether students in the control and experimental groups were equal concerning their performance in reading. The post-test aimed to see whether the two groups significantly differed in their reading performance after the training and to observe the efficacy of the training in improving students' reading performance. For this purpose, the standardized TOEFL test was used since it was considered appropriate and reliable as compared to self-administered tests. Then, having permission from the Educational Testing Service, the reading comprehension test was slightly adapted from the TOEFL online practice test and used as pre and post-tests. For example, the time given to perform the test was improved to an hour and the instruction was also slightly improved. Some open-ended items that required short

answers were also added by the researcher. The test contained two reading passages that were neither short nor long (See Appendix A). It comprised 20 close-ended items (each passage contained ten multiple-choice questions), and each item had four choices for the correct answer having one mark for each question answered. Moreover, four open-ended questions were prepared by the researcher based on the passages for a more comprehensive understanding of students in both groups' reading comprehension performance. The test, generally, consisted of items related to five reading comprehension sub-skills (6 items for the main idea, 7 items for the detail, 7 items for vocabulary, 2 items for inference, and 2 items for reference skills) with 30% total marks. Thus, the test contained reading questions that allowed readers to apply various RSs that were practiced during the four-month intervention session, which means, the test required the learners to skim, guess the meaning of words, infer the implied idea and so on.

It is worth mentioning that the post-test was identical to the pretest to control the content variability and difficulty of items in determining if any changes can be connected to the training. Scholars agree that administering the same test before and after the treatment is possible to avoid the problem of equating different forms of pre-and post-tests (Creswell & Creswell, 2023; Song, 1998). They suggest that it is possible to minimize the testing effect by administering the same test reasonably after a long period. Moreover, Song notes that students would not be given the correct answers after the pre-test so even if they managed to remember a question; they would not know whether their answer on the pre-test was correct or not (p. 43). For these reasons, administration of the same test as pre and post-test is possible with caution. Accordingly, while administering the same test as pre and posttests, in the present study, an attempt was made to minimize the testing effect for the following reasons: (1) the post-test was administered after four months; (2) students were not given the correct answers during the pre-test, and (3) the format (order of items) of the pretest was changed during administration of the posttest.

To reduce the potential biases of the test administration, the following measures were taken. The pretest was administered in February 2023 a day before the administration of the questionnaire. The post-test was administered towards the end of the May 2023 academic year after four months of training. The test was administered by a trained teacher

in collaboration with the researcher. During the administration of the pre and post-tests, both the CG and EG took the test in the morning session with the regular schedule of the school. Before starting the test, the participants were assured that their anonymity would be retained; they were informed that the result of the test would not affect their regular class results. The purpose of the test was also explained to them. They were introduced to the test and asked to carefully choose one of the alternatives and answer open-ended questions. They were informed to ask their teacher for help if they found any difficulties while doing comprehension questions. The participants were informed that the time for completing the test was an hour and no extra time was allowed. Accordingly, participants read the passages and responded to the questions, and when they completed the test based on the time provided, the test papers were collected. Given codes for the pre and post-tests, they were administered, collected and marked by the aforementioned teacher together with the researcher to reduce unnecessary influences from the researcher. Finally, the data were organized and entered into SPSS by the researcher in collaboration with her partner at home.

3.4.2 Questionnaire

Students' level of LLSs can be recognized using various methods including, interviews, observation, think-aloud, questionnaires, diaries and journals, but each of them is not without limitation (Chamot, 2005; Oxford & Amerstorfer, 2018; Oxford & Burry-Stock, 1995). In relation to this, Chamot (2004) suggested that although there is a risk of inaccuracy if learners do not report honestly, LLSs are determined by self-reporting, which remains the sole method to recognize learners' mental processes. Accordingly, the most commonly used method for identifying learners' LLSs is via questionnaires, and Oxford's (1990) SILL is a comprehensive one that has been widely used by researchers (Chamot, 2005; Oxford, 1996). Hence, for the current study, having permission from Oxford, the standardized RSU questionnaire was adapted from the SILL. The questionnaire was administered to the control and experimental groups before and after the training to address mainly the third research question which was intended to see whether the training had any effect on students' RSU. It was also administered before the training to assess students' current level of RSU and to check whether the control and experimental groups were

similar or not in their RSU prior the training. SILL was preferred for the present study because (1) it applies to both L2/FL contexts (Oxford,1990); (2) its utility, reliability, and validity have been recognized in various studies (Oxford & Burry-Stock, 1995); (3) various local studies with different language skills for different purpose have been conducted using the inventory (e.g., Kebede, 2019; Yechalework, 2017), and (4) it has been widely utilized by several researchers in the world.

Regarding the adaptation procedure, the SILL has two versions: version 5.0 and version 7.0. Version 5.0 is designed for native speakers of English learning foreign languages, whereas version 7.0 is for EFL learners. For the present study, the SILL version 7.0 was used to measure the target students' RSU before and after an intervention. It is imperative to mention that the SILL was originally designed based on general language learning strategies including listening, speaking, reading, writing and vocabulary strategies. Therefore, to meet the purpose of the present study, items that were relevant to teaching reading strategy, were adapted. In Oxford's inventory, the five-point Likert scales were originally designed as follows: 1 = 'Never True of Me', 2 = 'Rarely True of Me', 3 = 'Sometimes True of Me' 4= 'Frequently True of Me' 5= Always True of Me').In the current study, these five-point Likert scales that participants rate were further improved as: 1= Never, 2= Rarely, 3=Sometimes, 4= Usually, and 5= Always. Some of the items were also modified, for instance, "I think of relationships between what I already know and new things I learn in English" was further improved as *I think of relationships between what I already know and new things that I read in English*. In this way, the RSU questionnaire containing 27 items was adapted and grouped into the six (memory, cognitive, compensation, metacognitive, affective and social) strategy categories as follows: four items from memory strategies (e.g. 'In my reading, I make mental pictures or visualize information to remember what I read'); seven items from cognitive strategies (e.g. 'I read an English passage quickly to get a general idea'); three items from compensation (e.g. 'To understand unfamiliar English words, I make guesses or predictions using clues such as titles and pictures); five metacognitive strategies (e.g. 'I plan my schedule so I will have enough time to read English texts.); five items from affective strategies (e.g. 'I give a reward to myself when I do well in reading English.'), and three items from social strategies (e.g. 'I work with other students to improve my reading skill) (Appendix B).

Concerning the format, the questionnaire contained both close-ended and open-ended items, but only close-ended items were administered after the training. Oxford and Amerstorfer (2018) noted that since Likert-scale surveys frequently provide a comprehensive picture of LLSs use, qualitative measurements are used together with quantitative ones. Hence, in the present study, an open-ended item was intentionally added to the close-ended one during the before the training thinking that students could portray RSs that were not included in the close-ended items. One of the arguments in strategy instruction is that the learning requirements of learners vary (Oxford, 2016). In this regard, an open-ended item was added in the pretest to assess students' needs (to find out which strategies students know and which they lack) and to understand the RSU level of the target students giving opportunities for them to uncover RSs they have been using other than the close-ended items.

Like that of the reading test, the questionnaire was administered prior to the training to the students in both groups at the beginning of the second semester in February 2023 one day after the reading test. The same questionnaire was administered toward the end of the 2023 academic year after four months of training. The students were introduced to the questionnaire and asked to carefully 'tick' one of the five choices (1, 2, 3, 4, or 5) for each item. They were told to ask the teacher for help if they found any difficulties while filling out the questionnaire. It was administered by the teacher in the presence of the researcher.

It is worth mentioning that the questionnaire was translated into Amharic by the researcher along with an Amharic teacher to minimize the language barrier so that students could understand and respond to the items easily (See Appendix C). After administering the Amharic version of the questionnaire to the participants, the collected questionnaire was translated back into English during the analysis.

3.4.3 Interview

Qualitative methods are valuable when detailed information is required about the role of intervention works (Snow, 2002). An interview is used to collect data about experimental conditions, particularly, a semi-structured interview is vital for the interviewer to clarify questions during the time of misunderstanding from the interviewee (Cohen et al, 2018).

As a result, in this study, one-to-one semi-structured interviews were conducted at the beginning of June 2023 with the students in the EG to get their insight about the training and to validate the data obtained from reading and questionnaire posttests. At the beginning, ten students were randomly selected and invited to take part in the interview. Then having their consensus, those students who agreed were taken for interview. Finally, the data obtained from six interviewees (2 males and 4 females) were considered during the analysis because data were saturated while interviewing the seventh student. In other words, the researcher couldn't find any new data while interviewing the seventh student because of a repetition of ideas. The interview was conducted after the training and the post-tests.

The interview questions were adapted from the previous researchers (Chinpakdee & Gu, 2021; Li et al., 2022). Then, the interview questions were translated into Amharic to avoid participants' difficulty with language barriers. In other words, to get detailed information from the participants, Amharic was used so that participants could respond in a relaxed atmosphere. The interview questions were prepared in a way participants could share their experience of the training. It was comprised of one brainstorming (what is reading skill to you?) and three main questions followed by probing questions to raise important issues that were not mentioned by the interviewees. To be more specific, the three interview questions were related to the third research question, eliciting students' perceptions about the benefits of the training in promoting their reading ability (See Appendix D). It is worth mentioning that the interviewees were invited to refreshments followed by the brainstorming question to motivate them before the actual interview session followed by the main interview. They were interviewed by the researcher in collaboration with the teacher who conducted the training. The interview was conducted during the morning session in one of the classrooms. The total interview session with the six students took almost 26 six minutes (each individual took an average of 2-5 minutes). Having participants' permission, the interviews were tape-recorded for transcription and caution in the loss of data during the analysis. Finally, the Amharic verbatim was transcribed and translated back to English for analysis purposes (See Appendices J & K). Participants were given pseudonyms for confidentiality.

3.4.4 Classroom Observation

According to Baker et al. (2023), the degree to which an intervention is carried out as intended is called treatment fidelity, which is crucial for intervention research to produce a valid comparison. For this purpose, in the present study, observation was conducted during reading classes. It was mainly made to make sure whether the strategy training was implemented in reading classes according to the purpose of the research. In other words, the observation enabled the researcher to attend how well the training was implemented, which in turn increases the reliability of the findings from the reading posttest and questionnaire. A structured non-participant observation was conducted; in structured observation, the researcher can produce numerical data in which frequencies can be calculated (Cohen et al., 2018). Thus, the observation checklists, containing ten items with a “Yes” or “No” responses, were adapted from the previous studies (Barrios, 2018; Chamot & Robbins, 2005; Chanyalew & Abiy, 2015) (See Appendix E). The observation checklists were mainly designed in line with the objectives and contents of the teaching manual. For instance, one item was “The teacher presents and explains the reading strategies”. In this way, the adapted observation checklists contained ten items.

The observation was held in March and April, during the training session in 2023 academic year. The students had two reading periods per week, and a total of ten classroom observations were made in the EG for five consecutive weeks. During the ten round observations, the researcher put a tick mark in the box but did not use any recording materials (a detailed explanation is found in the analysis part).

On the other hand, having the conventional lesson plan of the school (Appendix L), the researcher rarely visited the CGs’ reading classes and received information from the teacher about the teaching-learning process(the training procedure contains the details).

Moreover, the designed observational checklists were accompanied by instructional check sheets that were adapted from Kebede (2019) and were given to the trained teacher. In other words, depending on the contents of the observation and training manual, check sheets having ten items were prepared in the form of a table and were provided to the teacher who conducted the training. For instance, one of the items was, ‘I introduce,

present, model and practice two or three reading strategies during each reading class'. The trainer teacher was informed to put a checkmark in the box for each day of the week to indicate that he implemented items listed in the table. If she was unable to implement any one of the elements, there was a space to provide reasons or comments (See Appendix F). Furthermore, following conversations with the teacher who conducted the training, field notes were taken. In other words, at the end of each observation session, the researcher had a meeting with the trainer teacher to talk about the training. Following the discussions, the researcher took some notes that were incorporated in the analysis of data from observation and teacher's feedbacks on the check sheets.

In sum, the researcher thought that the observation data together with the check sheets filled by the teacher and the researcher's field notes, which were used to see how well the training was implemented, would increase the reliability of the study findings.

3.5 Teaching Manual Preparation

The researcher prepared a training manual in light of combined, integrated and explicit teaching approaches to fulfill the purpose of the study. During the preparation of the teaching manual, a set of RSs were integrated with the reading activities in grade eleven students' English textbook. Because the study was conducted during the second semester of 2023, the training material considered all the reading activities that were assigned for the second semester. The same reading passages from the grade 11 English for Ethiopian students' textbook were chosen. Preparing other reading activities from other sources was unnecessary because it was believed that the students' textbook itself contained authentic reading tasks or activities relevant to the purpose of this study.

It is worth mentioning that during the course data collection, the researcher overviewed English for Ethiopian grade eleven textbook printed in 2003 E.C. The book comprised twelve chapters in which the reading activities were disseminated in each chapter. In the school where the study was conducted, the researcher was informed that all the lessons in the first six chapters were supposed to be covered during the first semester, whereas the rest six chapters were aligned for the second semester. Therefore, the selection of reading activities for this study started from the seventh chapter because the training was done

during the second semester of the 2023 academic year. There were eleven reading passages disseminated in the six chapters, and all of these passages were integrated with RSs and were practiced during the training. The selected passages included: The Challenges of Climate Change and Why Weather Forecasts Are Important from unit seven; The Tale of a Tape and How the World is Dealing with Water Shortage from unit eight; Disability is no Obstacle to Success and Palm Leaves of Childhood from unit nine; The Miracle on the Han River and A poem from unit ten; Said has been found & Job advertisement from unit eleven, and Be aware the digital age from unit twelve.

The RSs were adopted from Grabe (2009), Grabe and Stoller (2019) and Oxford (1990) because the former authors (Grabe & Stoller) are well-known experts in the field of teaching reading, who frequently update their works in their publications (books and articles) and suggest about the importance of multiple RSs instruction in developing of students 'reading skills. Moreover, the strategy classifications made by the latter author, Oxford, is comprehensive that include several RSs that are applicable in EFL context. Despite a plethora of RSs, the present study adopted the following RSs: semantic mapping, placing new words into context, imagery, practicing, skimming, taking notes, summarizing, highlighting, guessing/predicting; setting goals and objectives, self-monitoring and self-evaluating, self-encouragement, and cooperating. The rationale for selecting the particular RSs is that different related foreign empirical studies that were briefly discussed in the literature section confirmed the effectiveness of these strategies in EFL contexts. For example, monitoring has been frequently cited as a key reading strategy for enhancing comprehension (Grabe, 2009). Semantic mapping helps readers link previous and current knowledge and improves vocabulary knowledge (Barrios Nunez, 2018). RSs such as summarizing, forming questions, imaging, predicting, activating background knowledge, and monitoring comprehension are among the important strategies for the comprehension and promotion of strategic readers (Chamot & Robbins, 2005; Grabe, 2009).

The teaching manual involved what RSs are, their classification, why, when, and how to use them during teaching reading (Appendix G). The researcher followed the CALLA teaching procedure as the teaching approach because of the reasons mentioned in the

literature section. As discussed before, CALLA is an instructional approach for L2 and FL learners, which incorporates the teaching of important topics from the content course, the language skills needed for learning in school, and explicit instruction in using learning strategies for academic tasks (Chamot & Robbins, 2005). In fact, it is undeniable that strategies such as semantic mapping, skimming and scanning have been already included in students' textbook but detailed explanations were not provided.

Afterward, the teaching material was validated by the supervisor and an EFL teacher at the research site. Accordingly, before conducting pilot, forty-three RSs were selected and included in the teaching material. During the validation of the teaching material, the supervisor checked and evaluated the RSs in terms of amount, appropriateness and clarity. Finally, he recommended reducing the number of strategies. The teacher also suggested students would be bored of practicing several strategies instead they could be effective if they are taught important reading strategies. Finally, considering the comments and looking at what the literature points about the worth of strategies, the selected RSs were further reduced to eleven for the pilot. On the other hand, considering the long-term training session, some important strategies, namely: placing new words into context, imagery, practicing, highlighting; and setting goals and objectives, were added to the main study.

3.6 Reliability and Validity Issues

As far as experimental study is concerned, several threats, unless they are controlled, may negatively affect the outcomes. Since this study is experimental, several measures were taken to attain the validity and reliability issues during the entire research process. For example, the quasi-experimental design is exposed to potential internal validity threats such as selection history, maturation, selection bias, instrumentation and testing (Creswell, 2014). As discussed earlier in the design section, in this study, an attempt was made to reduce internal validity threats, for instance, to minimize teachers' history and biases related to the researcher, both the control and experimental groups were taught by the same teacher using the same reading tasks with similar periods. The treatment was conducted by the trained teacher to minimize potential bias of the researcher's expectations of the outcome. Students' background in terms of reading comprehension and RSU was checked

by administering the pre-test to the control and experimental groups. So, the only difference was the teaching approach involving explicit combined strategy training in the EG. Observation, check sheets by the teacher and filed notes were also vital to minimize unnecessary biases. The test was distributed, collected and marked by the trained teacher in collaboration with the researcher; the questionnaire was also distributed and collected in a similar way. Finally, the collected data were organized, entered into SPSS and analyzed by the researcher in collaboration with her partner. The next section is about validity and reliability of the instruments.

3.6.1 Validity of the Instruments

According to Cohen et al. (2018), the validity and reliability of the data are functions of the quality of the tools used in collecting information. The concept of “appropriateness and accuracy “in the research process, is called validity (Kumar, 2019). Data gathering instruments should be prepared so that each item/question is logically linked to an objective (face validity); the items/questions should cover all aspects of the issue being studied (content validity); one instrument must be comparable with another instrument simultaneously used (concurrent validity), and the instrument(s) should predict the outcome (predictive validity) (Ibid:343–345). Muijs (2022) indicates that all instruments must be subjected to expert judgment before the studies so that the validity and reliability of tools can be maximized. Hence, in this study, the validity of instruments was checked.

It can be noticed that a standardized reading test and questionnaire were used to minimize threats related to self-prepared instruments. Moreover, all the instruments (reading test, questionnaire, interview, observation, fidelity check sheets and teaching material) used in the study were reviewed and validated by experts. Tekle (2016) suggested that although TOEFL tests are meant for EFL learners, their difficulty level should be evaluated in relation to the abilities and learning experiences of the candidates in focus since EFL learners can have varying reading experiences and abilities depending on resource provisions, instructional goals and education policies of their respective contexts. Therefore, in the present study, although they are standardized, both the reading test and the questionnaire were subjected to the comments of two grade 11 EFL teachers to ensure

the content and face validity before being applied in the final study (Appendix H). Accordingly, some amendments were made especially after the pilot test. For instance, three reading passages were used in the pilot study but following suggestions from experts, one of the passages was excluded from the main study. Conversely, some open-ended items (e.g. summarizing the main idea of the passage) were added to the test of the main study, which was important for a comprehensive understanding about the role of the training (see the discussion about the reading comprehension test above).

The adapted version of the RSU questionnaire was also checked by the supervisor and a colleague (PhD candidate) before being administered in the pilot and main study. As discussed before, the researcher refined the questionnaire by clarifying language and checking unnecessary statements based on the comments (e.g. I think of relationships between what I already know and new things I learn in English” was further improved as *I think of relationships between what I already know and new things that I read in English.*). The interview questions and teaching material were also subjected to comments of the supervisor, and the language and the organization of the teaching material were improved and the interview questions were translated into Amharic following the comments. In sum, the commented version of all instruments was piloted with eighty-two grade eleven students to find out whether the instruments could measure what they were intended to measure followed by the necessary revisions. Then the last version of the instruments was administered as a pre-and post-test to participants of the main study.

3.6.2 Reliability of the Instruments

Reliability, on the other hand, is the degree of a research instrument produces consistent results when used repeatedly under similar situations (Kumar, 2019). In this study, the test re-test reliability of the reading comprehension test and Cronbach Alpha reliability of the questionnaire were checked, a brief explanation is provided below.

3.6.2.1 Test-retest Reliability of the Reading Comprehension Test

The same tool should generate an identical response when applied to the same respondent within one to two weeks before retesting (Muijs, 2022). In this study, although the reading comprehension test was standardized, the test-retest reliability was checked because of modifications made (discussed earlier) to the test of the main study. Therefore, the test-retest reliability of the reading comprehension test of the main study was checked by administering the test to students who had similar backgrounds to the participants of the main study, but in different schools. Accordingly, the reading test was administered to thirty-six students of Bethlehem Secondary School followed by the second administration of the test after a week to the same participants. The results of the two test scores were coded and entered into SPSS. Finally, the results were correlated using Pearson's correlation coefficient. The test-retest reliability result was found to be 0.892, suggesting good reliability.

3.6.2.2 Internal Consistency of the Questionnaire

As discussed earlier, the standardized RSU questionnaire was used, however since some modifications were made during adaption, the reliability the questionnaire was computed using Cronbach's Alpha Coefficient. The consistency of the overall RSU questionnaire was tested during the pilot test with 42 participants who had similar backgrounds to the participants in the main study but were not in the same school. The overall Cronbach alpha reliability of the questionnaire during the pilot study was 0.805, which was accepted to conduct the main study.

3.7 Data Collection and Training Procedures

The entire study followed three main stages: the pre-, the while and the post-training stages. In the pre-training stage, all necessary conditions, including preparation of instruments and teaching material, teacher training, and pre-test administration, were met. First, the researcher received a letter from AAU, Department of Foreign Languages and Literature and went to Tesfa Birhan Secondary School at the beginning of January 2023. Then the objectives and procedures of the study were explained to the director and the EFL

department head in the selected school to get their acceptance to conduct the study with grade eleven students. An English teacher was requested to provide the training followed by pretest administration to the target students. Then, with everything in place, the actual experiment was conducted in the while stage (from February mid to the beginning of June 2023) followed by the post-data collection in the final stage. A detailed explanation of training procedures is provided in the following section.

The training was implemented by a trained teacher, who had more than ten years of teaching experience in teaching English at the secondary school level. Accordingly, having her consensus, scholastic discussion was held in the form of training with a regular EFL teacher who conducted the training. The purpose of the study was briefly explained to her followed by a discussion about the concept and implementation of explicit reading strategy instruction in teaching reading. The training manual together with the lesson plan was provided to the trainee teacher (see Appendix G). The interaction was collaborative and supported with questions and comments from the teacher. The teacher was encouraged to raise any unclear points. In this way, the training lasted five days (from January 25-29, 2023). The purpose of the training was to avoid biases of the researcher and to maximize experimental fidelity. Following this, pretest data were collected during the first week of the second semester.

One day after the pre-test that determines' students' homogeneity in reading, the training in RSU commenced for the students in EG. It lasted approximately about four months (February 2023 to the beginning of June 2023). The training session had two periods per week (45 minutes for each teaching session) with a total of 32 instructional sessions. As mentioned before, both groups had the same teacher, reading activities, reading tests and questionnaires but differed in teaching approach. While the EG received explicit strategy instruction in line with the five steps of the CALLA, students in the CG were not aware of the strategies. In other words, unlike students in the CG who did not receive any RSs instruction, the students in the EG were explicitly taught a combination of various RSs integrated with different reading tasks in the textbook.

The training was done under the regular supervision of the researcher. As mentioned earlier, in addition to the observation session, the researcher received a weekly check sheets from the teacher and took notes after discussing with the teachers on how the training was going. Accordingly, while implementing the training, the trained teacher followed the teaching manual that was designed based on the objectives of the textbook as well as the five phases of CALLA i.e (1) Preparation (activation of background knowledge),(2) Presentation (explanation or demonstration of the target strategies), (3)Practice (strategies application), (4)Evaluation (self-assessment),and (5)Expansion (transformation to new tasks. In light of CALLA, during the preparation stage(i.e pre-reading), students were asked what they knew about the topic and what strategies they had been using in reading; during the presentation(while reading), the teacher presented, explicitly taught, and modeled the target RSs along with reading tasks; in practice stage-students were motivated and guided to practice strategies they have learned using specific tasks; during the evaluation stage (post-reading)-students were encouraged to evaluate their success or failure of applying strategies; finally during expansion stage, students were encouraged to use the learned strategies independently with new tasks outside class. A sample lesson (as observed accompanied by the teacher's check sheets and filed notes) is briefly explained as follows.

For instance, the first reading lesson/topic (i.e. Appendix G) during the first day of training was 'The challenge of climate change'. During this session, after telling her students to open their textbook on page 168, the trained teacher asked brainstorming questions (e.g., What do you think the passage is about? Learners were required to see the title and the pictures in the textbook in order to predict the idea of the passage based on their prior knowledge. The teacher also wanted to know what strategies or methods students have been using when they read a passage. The students mentioned a few strategies like skimming, scanning and looking for the meaning of words in a dictionary. She wrote the responses on the board and thanked them for their participation. Then, distributing a handout having the names and explanations of RSs, she informed them that they were going to learn RSs that help them understand a given text easily.

Then using the teaching manual, the teacher presented the strategies of predicting/guessing, skimming and semantic mapping strategies on the board. She told the students that they could understand a given text through systematic guessing without necessarily comprehending all the details. She suggested that students can use linguistic clues (e.g. prefixes & suffixes) and other clues (such as titles, headings and pictures) to understand what they are reading. She stated that students can predict the text before reading, but it can be also applied while and after reading. They were informed that learners' background knowledge (such as knowledge of a topic) helps them to predict or guess what they read. Moreover, the students were informed that skimming is quick reading that involves searching for the main idea of a text or the gist of it. She added that while skimming, looking at parts of a text such as the introduction, getting the topic sentences, and first and last sentences of a paragraph as well as looking down the passage quickly are important techniques. She indicated that by using the skimming strategy, students can confirm their prediction in the while reading stage. Students can apply this strategy in all reading stages. Then, after introducing the title, she showed students how to apply the strategies (predicting/guessing, skimming and semantic mapping) in a specific passage. She modeled and applied the strategies while she was reading the passage ('the challenge of climate change'). For example, while presenting and modeling semantic mapping to activate students' background knowledge using the passage from students' text, the teacher drew a large oval on the blackboard and wrote the topic '**climate change**' inside and wrote words related to the topic followed by connecting with the keywords in the oval using arrows and links. Then she told students to practice the strategies they learned with the rest paragraphs in the passage. Finally, she encouraged students to use the strategies in other tasks too.

On each day of reading classes, two or more RSs were introduced and taught to the students because it was not feasible to practice more strategies within the given period of a day. In each reading lesson, each strategy was presented, named, and modeled by the teacher, and students were told to practice the strategies with the daily reading lessons. For example, memory strategy (such as semantic mapping and imagery) and cognitive strategies (predicting, practicing, note taking, skimming, highlighting and summarizing) were introduced, explained, modeled and practiced during each lesson to help students to comprehend the text. The students were encouraged to take notes while they were

practicing reading. They were frequently recommended and asked to practice and summarize each passage they read to improve their reading skill. Compensation strategies (guessing from context and using linguistic clues) were explicitly taught to the students, and practiced by them.

Metacognitive strategies (arranging and planning learning, self –monitoring and self-evaluating) were introduced, named, demonstrated and practiced during each reading lesson to raise learners' metacognitive awareness. For example, students were assisted in having a reading purpose and arranging a suitable environment and schedule for reading. They were guided to use the strategies they learned in reading and evaluate their success. Affective strategies and social strategies such as self-encouragement, asking for clarification and cooperating with others that were integrated into each reading lesson, were explicitly taught to the students. Students were informed about self-rewarding and were encouraged to make positive statements about them while they read and did reading tasks.

The teaching procedures were implemented in line with the three reading stages. For example, in each pre-reading session, the teacher introduced the title and asked for brainstorming activities (such as students' previous knowledge of RSs and the topic under discussion) to make them ready for the next tasks. In the while-reading stage, the teacher presented and demonstrated new strategies and students applied them while reading texts. During post-reading, students were encouraged to evaluate their progress in using strategies they learned and to use the strategies with other tasks outside the class.

In the whole process, students were encouraged to apply various RSs in their reading, and they were doing tasks individually, in pairs, or in groups under the guidance of the teacher. Teacher's scaffolding and feedback, when necessary, were the key during the training sessions. In this way, the experiment lasted about four months (Evidence of the observation data is found in the analysis section).

Conversely, students in the CG were taught using the conventional teaching method, and no strategy training was given to them. The conventional teaching method/lesson plan had four teaching stages: (1) introduction, (2) presentation, (3) stabilization, and (4) evaluation stages (see sample lesson plan in Appendix L). During the observation of the first period,

the teacher checked whether students' did their homeworks or not during the introduction stage. Then, the teacher introduced the daily lesson ('The challenge of climate change'), and the students followed up. During the presentation stage, the teacher wrote key vocabulary on the board and explained, then she let the students read the passage silently. In the stabilization stage, the teacher encourages the students to read and understand the passage. Finally, during the evaluation stage, the teacher informed the students to do comprehension activities at home. In this way, sometimes, while teaching the CG, the teacher wrote keywords on the board and explained later to introduce the students to the meaning of some unfamiliar words. Then she gave reasonable time to the students to read a passage silently. The allotted period/time, sometimes lasted before students completed what they were reading. The teacher and the students together did the reading activities related to the passage the next day, but only some students participated in the class. At other time, the students were informed to read a passage at home and to come back to class with answers to comprehension questions.

3.8 Ethical Issues

Several ethical issues need to be considered while planning to conduct a research, for instance, researchers should respect the audiences or participants, use non-discriminatory language and keep participants' anonymity (Creswell, 2014). Creswell also states that it is important to show considerable respect for the site where the research is conducted, and this can be ensured by sending an earnest request for permission and obtaining the required permission before entering the research site. Such ethical issues were considered while conducting the current study. As discussed before, first, to get access to the research site, a letter of cooperation was written from the office of AAU's Foreign Languages and Literature department to the concerned bodies in Kokebe Tsibah(for the pilot) and Tesfa Birhan (the main study area) Secondary Schools. Then the objectives and procedures of the study were explained to the selected schools' director and the EFL department head to get their acceptance. Then, training was given for two EFL teachers (who conducted the experiment) based on their willingness. Afterwards, a discussion was made with the participant students about the aim of the training. The participants were informed about the purpose of the test; they were also told that the training and the test would not affect their

achievement instead the process was promising to their academic success. Students were informed not to write their names while doing the reading and filling out the questionnaire. Pseudonyms were used for transcription of the interview data.

3.9 Data Analysis Techniques

Both quantitative and qualitative data analysis techniques were employed to answer the four research questions of the main study. The quantitative data collected through reading comprehension tests, close-ended questionnaires, and observation were organized and entered into the Statistical Package for Social Science (SPSS) version 24 software. Both descriptive and inferential statistics (i.e. parametric and non-parametric tests) were used to analyze the data. A probability value of 0.05 was used to determine whether the score differences were statistically significant or not.

Before the application of parametric/non-parametric tests, assumptions were checked that are reported in the analysis section. Kolmogorov-Smirnov's test was run to check whether assumptions of normality were met to decide on the use of either t-test or other statistical tools. Since the assumptions were fulfilled, an independent sample t-test was run to compare the experimental and control groups' mean scores before and after the training. In other words, the pretest scores of the two groups' were computed using independent sample t-tests to check whether there was a significant difference between the two groups' reading comprehension before the training; the same tool was applied to see if there was a significant difference between the two groups reading comprehension performance after the training. A paired sample t-test was used to check if there was a significant difference between the pre and post-test mean scores within the groups.

Furthermore, the effect size was calculated using Cohen's d to determine the magnitude of the training on students' overall reading comprehension post-test scores for independent and paired sample t-test results. According to Muijs (2022), determining the significance of the association does not indicate the strength or weakness of the effect; therefore, the effect size must be calculated. Among other effect size measurement formulas, Cohen's d formula is used in conjunction with the t-test. The formula of the effect size is $d = (\text{Mean for group A} - \text{Mean for group B}) / \text{Pooled standard deviation}$, where Pooled standard

deviation = (Standard deviation of group 1 + standard deviation of group 2)/2 (Cohen, 2022:109). According to the same author, there are guidelines for determining whether our effect size is strong, and Cohen suggests the following: the effect size, 0–0.20: weak effect; 0.21–0.50: modest effect, 0.51–1.00: moderate effect >1.00: strong effect. As a result, the effect size of the data gained via t-test was calculated to see the magnitude of the differences between and within groups' reading comprehension posttest mean scores using Cohen's d formula.

On the other hand, since the assumptions were not fulfilled to use the parametric test (independent t-test), the alternative one, non-parametric (Mann-Whitney U) test was performed to compare the pre and post-test mean scores of the control and experimental groups about the five reading comprehension sub-skills (i.e. main idea, detail, vocabulary, inference, and reference skills). In other words, to check whether the five sub-skills mean scores difference between the two groups were statistically significant or not before the training, Mann-Whitney U was performed. Similarly, the same test was computed to determine whether the two groups significantly differed with regard to the five sub-skills post-test mean scores.

Furthermore, the overall RSU questionnaire result of the two groups were analyzed using descriptive and inferential statistics. The RSU questionnaires were organized based on their sub-strategy categories: memory, cognitive, compensatory, metacognitive, affective, and social RSs, whose results were analyzed using descriptive statistics, The five-point Likert scales of strategy use means, set by Oxford (1990), (Low =1.0 – 2.49, Medium = 2.5 – 3.49, and High = 3.5 – 5.0) were used to interpret the data obtained from the questionnaire. According to the same author, medium strategy use is interpreted as sometimes and high frequency refers to usually and always strategy use. Accordingly, the current researcher used this information while interpreting the data from the questionnaire. To determine if there was a statistical difference between the control and experimental groups in overall RSU questionnaire mean scores before the training, and to check whether they differed in their RSU after the training, the independent sample-t test was performed. The quantitative data obtained through observation was calculated using frequency and percentage.

On the other hand, the data obtained via open-ended item and interviews were qualitatively described and interpreted. Amharic interviews verbatim were coded, transcribed, and translated to English which were thematically analyzed after reading the transcribed data carefully. Open, axial and selective coding were made manually because there were no several themes. Since the participants used Amharic while they were interviewed (Appendix J), the Amharic verbatim was cautiously translated back to English (see Appendix K) for analysis purposes. The researcher mainly followed the contextual translation method as it was difficult to make word-for-word translations; however, the direct translation technique was also made in some cases of critical issues raised by the interviewees. Summarization and direct questions were made during the analysis of interview data.

3.10 The Pilot Study

The pilot study enables researchers to test the instruments and make them ready for the final one. Accordingly, in this study, pilot study was conducted before the main study. The general objective of the pilot study was to investigate the effect of explicit strategy instruction on reading comprehension and RSU of grade eleven students in Kokebe Tsibah Secondary School. The research design, sampling procedure, instruments of data collection, procedures, data analysis techniques, the results of the pilot study, the lessons learned and actions taken in the main study, are briefly discussed below. The following research questions guided the data analysis.

1. What is the effect of explicit strategy training on grade eleven students' reading comprehension?
2. How are the reading strategy sub-scales being affected by the training?
3. What is the effect of explicit strategy instruction on grade eleven students' RSU?

3.10.1 Research Design and Approach

To answer the research questions, the study followed a quasi-experimental pre and post-test research design because it was not practical to form artificial classes. Since the design is exposed to an internal validity threats, in this study, an attempt was made to control such threats (if not totally controlled). For instance, to control a threat to history, though the target students had relatively similar educational backgrounds, their reading comprehension performance was checked through the pretest. Another threat in relation to teacher history was minimized by assigning the same teacher to both the control and the experimental groups thinking that if the students were taught by different teachers there could be biases on the final result as teachers could have been varied in their experience; for example, one teacher might have long years of teaching experience while the other might not. Moreover, training was given to an EFL teacher who did the experiment. The same teaching content of the textbook, at the same time, was used in the same classroom environment to both groups. On the other hand, relying on the nature of the three research questions that required quantitative data, the study used a quantitative approach.

3.10.2 Sample and Sampling Techniques

Among, the available schools, located in different sub-cities, Kokebe Tsibah general secondary school was randomly chosen from Yeka sub-city for the pilot. To choose the population of the study, there were four alternatives in Kokebe Tsibah General Secondary School as it offered education for 9th, 10th, 11th and 12th-grade students. Among these, grade eleven students were purposively selected for some reasons. The first main reason was since grade eleven students have to prepare themselves for national exams after a year, they have to be aware of the learning strategies that help them to comprehend the reading passages easily. Secondly, grade eleven students are relatively familiar with reading as English is given as a subject and serves as a medium of instruction beginning from grade seven onwards (in the case of Addis Ababa), and students read different subjects for their academic purpose; therefore, it is believed that these students may understand and employ strategies they are supposed to learn better compared to students in lower classes.

According to the information gained from Kokebe Tsibah General Secondary School administration, the total number of grade eleven students distributed in 14 sections (5 natural and 9 social sciences) enrolled in 2021/2022 academic year was 866. Students in social science were randomly selected through lottery method. Hence, both the CG and EG groups were in the same stream that was important to control the intervening variables. The subjects were selected based on the results of the pre-test which was given to students in five sections. In other words, the pre-test was administered to five randomly selected sections of social science students, then the two sections having closer mean scores were taken and further randomly assigned as control(N=40) and experimental(N=42) groups. After that, the experimental group participated in filling the questionnaire before the intervention.

3.10.3 Data Collection Instruments

The three data-gathering tools used in this study were: the reading comprehension test, the questionnaire and the observation. The data were mainly gathered through the reading test and questionnaire. While the reading test was administered to both the experimental and control groups before and after the treatment, the questionnaire was filled only by the

experimental group before and after the treatment to see learners' strategy usage. The pre- and post- reading tests aimed at measuring students' reading comprehension. However the observation was made to follow up when the teacher implemented strategy training during reading classes. Each instrument is discussed as follows.

3.10.3.1 The Reading Comprehension Test

In this study, the TOFEL reading test was administered to gather information about grade eleven students' reading comprehension performance before and after the training. Both the pre and post-tests were given by the researcher in collaboration with EFL teacher. The pre-test was given before the training to make sure that the control and experimental groups were equal concerning their proficiency in reading. After the treatment, a reading comprehension post-test was made. Before starting the test, participants were informed that the result of the test would not affect their regular class results so they would do the test in a relaxed atmosphere. They were also informed that the time for completing the test was an hour and no extra time was allowed to do the test. Moreover, participants began to read the passages and responded to the questions accordingly when the time was up; all answer sheets were collected. Finally, the English teacher was requested to mark the test papers to reduce the unnecessary influence from the researcher; while marking the papers he was not told whether the research participants were in the control or the experimental group.

3.10.3.2 Questionnaire

A standardized close -ended questionnaire adapted from Oxford (1990) was administered to gather information about students' strategy use in the experimental group. It was administered before the training to identify students' strategy use and after the intervention to determine whether the explicit strategy instruction had any effect on the students' strategy use after a six-week intervention. The same reading strategy items of questionnaire were administered twice in the study-before the intervention and at the end to the EG. The questionnaire was administered in the presence of the researcher and the trained teacher at the beginning of the second semester (i.e. in February 2022). Then it was administered to the students towards the end of the school year after six weeks of the training.

3.10.3.3 Classroom Observation

The classroom observation was held in March, during the second semester of the 2022 academic year. A total of six classroom observations were conducted in the EG for three consecutive weeks because students had two reading sessions (two reading periods) per-week in each unit. The main purpose of the observation was to follow up/monitor whether the trained teacher implements strategy based instruction or not. The researcher did not use any recording materials. On the other hand, since students in the CG did not receive strategy training, the researcher rarely visited the reading classes of the CG to check whether the teaching was conducted based on the convenience method. The observation was accompanied by instructional check sheets that were filled by the trained teacher who conducted the training.

3.10.4 Teaching Material Preparation

The study investigates how explicit strategy instruction embedded in reading tasks can contribute to learners' reading comprehension and their strategy use. To do this, the researcher has prepared a teaching manual that includes a lesson plan based on students' text book and the teacher's guide using combined, integrated and explicit strategy teaching approaches that were discussed in the literature section. The same reading passages from grade 11 English for Ethiopian students' textbook were chosen for both experimental and control groups. Designing new reading tasks was unnecessary because it was believed that the students' textbook itself contained authentic reading tasks relevant to strategy training. Both classes received the same hours of instruction and practice the same reading passages. The only difference in the intervention was the teaching approach. The CG learned reading through the regular method without strategy instruction; this is to mean students in the CG did not receive explicit strategy instruction. On the other hand, the EG were exposed to explicit instruction with a variety of strategies embedded with reading tasks in the textbook.

To implement the program, the researcher selected five reading passages from three units in students' textbook. The selected reading passages included: The tale of a Tape and how the World is Dealing with Water Shortage from unit eight, Disability is no Obstacle to Success and Palm Leaves of Childhood from unit nine and the Miracle on the Han River

from unit ten. The selection of the reading passages starting from the middle (unit eight) was purposive because the intervention was conducted during the second semester of the academic year and the selected reading lessons were covered during that semester.

The reading strategies for this study, were mainly modified from Oxford (1990) which involves the six concrete reading strategies: memory, cognitive, compensation (direct reading strategies), and those indirect reading strategies: meta-cognitive, affective, and social strategies. Although Oxford (1990) listed many reading strategies, this study focused on some strategies such as semantic mapping, skimming, scanning, taking note, summarizing, guessing intelligibly, self –monitoring and self-evaluating, self-encouragement and cooperating. Oxford’s taxonomy was selected for this study for two main reasons: first, these strategies were the most widely accepted classification and often recommended by researchers; secondly the strategies were selected to address activities/tasks related to the three (before, during and after reading) reading phases. The designed reading strategy instruction material contains the kind of strategy, its definition, how, when, and why to use that strategy. Here it is worth to mention that it doesn’t mean that all the selected strategies are new to the students in fact some of them(e.g skimming and summarizing) were already integrated in students text; however, students were not informed what strategies are, why and how to use them that could repair students reading comprehension failure.

3.10.5 Data Collection and Experimental Procedures

After preparing the reading test and the questionnaire, the researcher received a letter from AAU, Foreign Languages and Literature Department and went to Kokebe Tsibah Secondary School on February 23/2022. Then the objectives and procedures of the study were explained to the school director, the EFL Department head and the EFL teachers to get their acceptance. Having the necessary permission from the school, training was given to an EFL teacher four five days for the pilot study.

Following this, with the help of the trained teacher, the reading test was administered to five randomly selected grade eleven sections on March 2/ 2022 before the intervention. The researcher intentionally decided to select the five classes for the pre-test thinking that

if only two classes were selected, their pre-test mean scores might be varied/not equal to continue the treatment. Hence, from the five sections, two classes that scored nearly similar results were further assigned as control and experimental groups. In other words, two sections with relatively similar mean scores were assigned as the control and experimental group, followed by administration of the questionnaire to the EG. Before starting anything, the students were told that the treatment and the test would not affect their regular result.

After that, students in the EG were exposed to explicit strategy training using the CALLA procedures whereas the CG received instruction based on the conventional teaching method, and no intervention was administered. The intervention was implemented for six weeks and for twelve sessions because there were two reading sessions in a week. Towards the end of the treatment, after a week, the reading comprehension test was administered to both groups. Generally, the data collection procedure is summarized as follows.

Time/duration	Tasks
Feb. 25--Mar. 3/2022	<ul style="list-style-type: none"> -teacher training -administering pre- tests of reading for both groups - questionnaire for the experimental group
Mar. 4--Apr. 18/2022	<ul style="list-style-type: none"> -implementing explicit strategy instruction using the adopted strategies for the EG - teaching the CG using the conventional teaching method
Apr. 28/2022	<ul style="list-style-type: none"> -Post-reading test (for both groups) but questionnaire(for the EG)

3.10.6 Techniques of Data Analysis

To find the extent to which reading strategy training enhances the target students' reading comprehension and RSU, quantitative data were used as the main source for the pilot study. Therefore, data obtained from the reading comprehension test and the questionnaire was analyzed quantitatively using SPSS version 24. To answer the research questions, all the quantitative data were analyzed and interpreted using descriptive and inferential statistical tools. Both descriptive statistics (such as means and standard deviations) and inferential statistics (independent and paired sample t-tests) were used to compare the results gained from the experimental and control group. Independent and paired sample t-tests were used to check if there was a significant difference between and among the groups' results before and after the treatment. To determine if the mean scores of the experimental and control group were significantly different in their reading achievement before and after the given training, an independent sample t-test was used. Paired sample t-test was performed to check whether the training significantly affects the EG's reading comprehension posttest mean score. The data obtained through the questionnaire were categorized into six main reading strategies (i.e. memory, cognitive, compensation, metacognitive, affective, and social strategies) along with their descriptive statistics results and their respective items. Paired sample t-test was run to see if there was overall strategy use improvement within the EG.

3.10.7 Results of the Pilot Study

The main purpose of the pilot study was to investigate the effect of explicit strategy training on reading comprehension and RSU of grade eleven students in Kokebe Tsibah Secondary School. As a result, reading comprehension and questionnaire were used, and the collected data were analyzed using descriptive and inferential statistical methods.

3.10.7.1 Results of Classroom Observation

As mentioned earlier, observation was made for follow-up purpose, and it was conducted when students were instructed reading skill by the trained teacher. Thus, having the observation checklists, the researcher put tick marks, and the result is presented below.

Table 1. The results of classroom Observation

The teacher:	Ob.1	Ob.2	Ob.3	Ob.4	Ob.5	Ob.6	Total		%
							Yes	No	
introduces the daily lesson topic/title	-	✓	✓	✓	✓	✓	5	1	83.3
activates students' background knowledge of strategy use	✓	-	✓	✓	✓	-	4	2	66.7
presents and explains the reading strategies	✓	✓	✓	✓	✓	✓	6	0	100
explicitly models the strategies instruction using sample reading activities	✓	✓	✓	✓	✓	✓	6	0	100
motivates students to use reading strategies	✓	✓	-	✓	✓	✓	5	1	83.3
facilitates pair and group works	✓	-	✓	✓	✓	✓	5	1	83.3
guides the students to apply the reading strategies in activities	✓	✓	✓	✓	✓	-	5	1	83.3
gives feedback to students within the process	-	✓	✓	✓	✓	-	4	2	66.7
encourage self-assessment through peer working	✓	✓	✓	✓	-	✓	5	1	83.3
promotes the use of reading strategies in different texts or topics	✓	✓	✓	✓	✓	✓	6	0	100

As can be seen in Table 1, during all observation sessions, the trained teacher was observed while presenting and explaining the reading strategies, explicitly modeling the strategies using sample reading activities from the text, and promoting students to use the learned reading strategies in other contexts. During the first and second observation sessions, the teacher was observed while asking students what strategies they have been using in reading English texts. However, from the observation, it can be noticed that all items were not fully practiced; for example, from the first observation session, the topic of the reading passage

was not introduced, and the students were not given appropriate feedback during the first and the last observation sessions. Based the notes taken by the second researcher, during the preparation stage, students were asked what strategies they were using while reading; in the presentation stage- the teacher presented and modeled the target reading strategies integrating with reading tasks; in the practice stage-students were motivated to practice strategies they have learned with specific reading activities; during the evaluation stage-students evaluated their success or failure in applying strategies they learned. Finally, during the expansion stage, students were encouraged to use the learned strategies outside the class for the new tasks.

During the observation, the teacher used the teaching material and taught the target reading strategies in line with activities of the three reading stages (the pre during and post-reading). For instance, predicting and semantic mapping were introduced and demonstrated to the students during the pre-reading stages. Then, he tried to point out the important role of these strategies and skills in dealing with different types of texts. The students were observed practicing the learned reading strategies, for instance, they were taking notes during reading and doing comprehension questions in the post-reading stages. They were involved in pairs and group works.

In this way, the teacher instructed the students to read the passage by implementing different strategies while reading to understand the passages and answer the comprehension questions. Throughout the course, students had the opportunity to practice reading strategies in performing the reading task, and the teacher provided feedback and assistance to students. The students were motivated to evaluate their progress using strategies they learned and transfer to the new tasks outside the class. Mostly, each strategy was taught after introducing the passage to be read. However, because of time limitations, it is unlikely to assure that all the selected strategies were effectively practiced with different reading passages.

Moreover, the trained teacher's feedback in the experimental fidelity checklist indicated that most of the items in the checklist were implemented during reading classes; however, the teacher commented that time limitation was challenging for not properly practicing the target reading strategies. Finally, it is worth mentioning that both the comments of the

trained teacher and the classroom observation disclose that the shortage of time was a challenge for not fully practicing all reading strategies in different reading tasks.

3.10.7.2 Result of Reading Comprehension Test

The first research question of the study was “What is the effect of explicit reading strategy training on students’ reading comprehension performance?” First, in order to measure the CG and EGs’ homogeneity in terms of reading performance before starting the training, their pre-reading comprehension test scores were analyzed using descriptive and inferential statistics. The results of the pre-test for both groups are presented as follows.

Table 2: Statistical analysis of the pretest scores of the control and experimental groups

Group	N	M	Std. Deviation	T	Df	Sig. (2- tailed)
Control	40	12.4000	3.09507			
Experimental	42	11.8810	3.78187	.678	80	.500

As Table 2 depicts, the pre-mean of the CG ($M = 12.4000$, $SD = 3.09507$) and the pre-mean for the EG ($M = 11.8810$, $SD = 3.78187$). From this, the mean of the CG was slightly higher than that of the EG before the training. An independent samples t-test was carried out to see if there were significant differences between the pretest mean scores of the two groups. The independent sample t-test results ($T=.678$, $DF=80$, $p= .500$), indicated that there was no statistically significant difference between the control and experimental group in their pretest mean scores. This indicates that prior to the intervention, both CG and EG had nearly similar results in their pre-reading test scores since the P value was greater than 0.05. Then, after the pre-tests, the EG received explicit strategy instruction. Finally, the post-reading comprehension test was given to both groups to see if the instruction has any contribution to the learners’ reading ability in the EG. The result is presented in the following table.

Table 3: Statistical analysis of both groups post-test scores

Group	N	M	Std. Deviation	T	Df	Sig. (2- tailed)
CG	40	12.1250	2.69080	-2.14	80	.035
EG	42	13.5714	3.36512			

As shown in Table 3, the posttest mean scores of the CG ($M = 12.1250$, $SD = 2.69080$) and that of the EG ($M = 13.5714$, $SD = 3.36512$) were different after treatment. In other words, the post-test mean score of the EG was higher than the post-test mean scores for CG. An independent t-test was carried out to measure whether students in the CG and in the EG significantly differ in their posttest mean scores. Accordingly, the posttest mean scores difference between the two groups is statistically significant ($t = -2.14$, $df = 80$, $p = 0.035$). The results revealed that the instruction in RSs significantly influences the students' reading performance. The following Table shows the paired sample t-test results.

Table 3: Paired samples t-test for comparing the EG's groups' pre & post reading scores

Group		M	N	Std. Deviation	T	Df	Sig. (2- tailed)
EG	Pre-reading test	11.8810	42	3.78187	-7.275	41	.000
	Post-reading test	13.5714	42	3.36512			

In Table 4.4, the progress of the test scores of the EG is seen. The pre-mean score of the EG ($M = 11.8810$; $SD = 3.78187$) followed by the post-mean score ($M = 13.5714$; $SD = 3.36512$) with the result of paired sample t-test ($t = -7.25$, $df = 41$, $P = .000$) indicated that there was significant difference between the pre and post reading comprehension scores.

3.10.7.3 Results of Reading Strategy Use Questionnaire

To answer the second and third research questions, the RSU was administered to the experimental group before and after the training. Accordingly, the six categories as well as the overall strategy use mean scores were analyzed using descriptive and inferential statistics, and the results are displayed as follows.

Table 4: Descriptive statistics of the six strategy categories before and after the training

		Mean	N	Std. Deviation
memory	Before	2.4524	42	.76357
	After	2.9048	42	.44500
cognitive	Before	2.7262	42	.64478
	After	2.8294	42	.42530
compensation	Before	2.2778	42	.65814
	After	2.8730	42	.42898
metacognitive	Before	2.5095	42	.65400
	After	2.8905	42	.39805
affective	Before	2.3238	42	.55516
	After	2.8143	42	.40338
social	Before	2.4444	42	.90965
	After	3.0476	42	.52870

As table 4 shows, there was a difference in the frequency of each strategy reported by learners before and after the treatment. As the Tale shows, there were differences in each scores of the experimental for each strategy use. For example, the mean score of memory strategy use was (2.4524) before the training, but after the treatment, memory strategy use increased (2.9048) that indicated a slight difference from the pretest score. The social reading strategy (M=3.0476) was mostly affected by the instruction.

Table 5 : Descriptive Statistics for overall strategy use before and after the training

	N	Minimum	Maximum	Mean	Sig. (2-tailed)
overall strategy (before)	42	1.65	3.44	2.4557	.000
overall strategy(after)	42	2.48	3.58	2.8933	
Valid N (listwise)	42				

The above Table shows the EG's overall strategy use results of the paired t-test analysis. As can be seen a significant difference was reported between the mean scores before the training (M=2.4557) and (M=2.8933) after the training, in using strategies as a whole, with P value (t=-7.202, df=41, P=.000). Therefore, it is possible to say that the training significantly increased students' strategy usage.

3.10.8 Summary of the Pilot

As mentioned earlier, the pilot study enables researchers to test the instruments and make them ready for the final one. Accordingly, in this study pilot was conducted before the main study, which is summarized below followed by lessons learned from the pilot study and actions taken for the main study.

The general objective of the pilot study was to investigate the effects of explicit strategy instruction on reading comprehension and RSU of grade eleven students in Kokebe Tsibah Secondary School. For this purpose, eighty-two grade eleven students from two intact classes were randomly assigned as the experimental and control group. While forty students were assigned to the CG, forty two of them participated in the EG. Then, students in the EG were exposed to explicit instruction in a variety of RSs for about six weeks, but the CG did not receive such training. While classroom observation was carried out for follow-up purposes, the reading comprehension test and RSU questionnaire were used as the main data-gathering tools.

The collected data were analyzed using both descriptive and inferential statistics. While an independent and paired sample t-test were calculated to answer the first question, mean and paired sample t-tests were computed to answer the second and the last research questions, respectively. In this way, a summary of major findings for the pilot were provided as follows.

- The independent sample t-test result showed that there was a significant difference in reading comprehension post-test mean scores between the control and experimental groups after the training. The paired sample t-test result showed that the EG significantly improved their reading comprehension in the posttest.
- Based on the descriptive analysis result, students in the EG showed better posttest mean scores in each of the six strategies (memory, cognitive compensation, metacognitive, affective and social) categories as compared to their pretests.
- Finally, the paired t-test analysis revealed that students in the EG showed a significant improvement with regard to their overall RSU after the training

In general, the result of the study showed that explicit reading strategy training improved students' reading comprehension and RSU. The findings of the study indicated that explicit reading strategy training had positive effect on grade eleven EFL students' reading comprehension and RSU. The next section is about lessons learned from the pilot and actions taken for the main study.

3.10.9 Lessons learned from the Pilot and Actions Taken for the Main Study

Several lessons were learned from the pilot study. Therefore, before data presentation and analysis of the main study, the lessons learned from the pilot along with the researcher's reading experience, the comments from examiners during the pilot defense and reviewers' comments during the publication process, were considered in the main study. Each of the lessons learned and actions taken are discussed as follows.

1. **Reading activities:** during the pilot, the experiment was conducted using only five reading lessons selected from three units in students' text. This could have affected the quality of the findings. Therefore, it was learned that more reading passages need to be incorporated during the main study. Accordingly, all reading activities in the six chapters of the second-semester lessons were covered in the main study.
2. **Strategy Selection:** It was difficult to give sufficient time and more opportunities for students to practice the strategies they learned with different reading tasks within six weeks of treatment sessions during the pilot study. Hence, some more RSs (e.g. practice and imagery) were included for the main study that was supposed to be practiced in four months.
3. **Need analysis:** an important lesson was also learned from the pilot study in which open-ended questions and/or interviews should have been included to identify which reading strategies students have been already using and what strategies they lack before the training rather than delimiting students only to close-ended items. Accordingly, open-ended item was included in the main study so that students could list strategies that were not in the close-ended items (i.e. what other strategies or techniques do you use to solve the problems you face during English reading?).
4. **Reading comprehension test:** following the comments of the supervisor and reviewers of the journals where the researcher's articles have been published, some

open-ended questions (e.g. writing the main idea of the passage and giving title to the passage) were added in the main study that were important for a comprehensive understanding about the effectiveness of the training.

5. **Questionnaire:** the questionnaire was administered only to the EG during the pilot. However, following the examiners' comments during the pilot defense, the questionnaire was administered to both control and experimental groups in the main study. In addition, during the pilot, the total number of items was 24 with only close-ended type, but the number of items increased to 27 in the main study following the frequency of strategies covered during the training. For example, *I read English words, phrases, or sentences several times for complete understanding*, was added to the main study
6. **Interview:** although conducting interviews with students in the experimental group would have been important to know what they feel about the training during the pilot, it was missed. Hence, the interview was conducted during the main study.

CHAPTER FOUR: RESEARCH FINDINGS AND DISCUSSION

4.0 Introduction

Depending on the four research questions stated earlier, this chapter presented findings of the main study obtained through the reading test, observation, RSU questionnaire and interview. The study followed some procedures before answering any of the research questions. Before embarking on the analysis of the posttests, the reading comprehension test was administered as pretests to check the homogeneity of the control and experimental groups. The questionnaire was also administered before the training to know students' current level of RSU. Normality assumption tests were checked before applying inferential statistical tools. Training follow-up was maintained through observation, note taking and the teacher's check sheets. Finally, the chapter provided discussion of the major findings where interpretations were made in light of relevant literature. In this context, first, the findings of the study are displayed in the following sections.

4.1 Findings

The findings of the study are, generally, displayed in three main phases. In the first phase, the overall reading comprehension pretest and the RSU questionnaire results of the control and experimental groups were presented. The second phase, however, presented the observation data. The final phase was about the posttest data analysis in relation to each research questions. In this way, the pretest data are presented in the following section.

4.1.1 Findings of Reading Comprehension Pretest

The overall comprehension reading as well as the five reading sub-skills pretest scores, were computed to check whether or not students in both groups were similar concerning their reading comprehension performance before the training. Both descriptive and inferential were used to analyze the data. The results of descriptive statistics are presented in Table 1 below.

Table 1 Descriptive statistics of the control and experimental groups' reading pretest scores

Group	N	Sum	Mean	Std. Deviation
CG	43	566	13.16	2.516
EG	44	599	13.61	3.059

As depicted in Table 1, the pretest mean scores of the CG (13.16) and EG (13.61) were nearly similar with regard to reading comprehension performance before the training. Since there was a small difference between the two groups' pretest mean scores, an independent sample t-test was performed to determine whether the difference was statistically significant or not.

However, before the analysis of the independent sample t-test, Kolmogorov-Smirnov's test of the overall reading as well as the five subs kills pretest scores of the two groups were calculated to check whether the assumptions of normality were met or not in determining the use of parametric or non-parametric tests. The results are presented below.

Table 2 Kolmogorov -Smirnov test of both groups' pre-overall reading test scores

Control and Experimental groups	Kolmogorov-Smirnov ^a		
	Statistic	Df	Sig.
CG (pretest)	.107	43	.200*
EG(pretest)	.107	44	.200*

Table 2 depicts Kolmogorov-Smirnov test results for both groups' pretest scores. As can be seen in the table, the numbers under the 'Sig' columns for both groups are larger than .05. This led the researcher to conclude that both the control and experimental groups' pretest scores were normally distributed, suggesting the assumptions of using the t-test were fulfilled. The next table presents Kolmogorov-Smirnov's test results for the five reading sub-skills pretest scores.

Table 3 Kolmogorov-Smirnov test of the five reading sub-skills pretest scores

Skills	Control and Experimental group	Kolmogorov-Smirnova		
		Statistic	Df	Sig.
Main idea	CG	.166	43	.004
	EG	.172	44	.002
Detail	CG	.169	43	.003
	EG	.179	44	.001
Vocabulary	CG	.217	43	.000
	EG	.185	44	.001
Inference	CG	.346	43	.000
	EG	.409	44	.000
Reference	CG	.337	43	.000
	EG	.401	44	.000

Table 3 displays the Kolmogorov-Smirnov test for the five reading comprehension sub-skills pretest scores. All the results under the 'Sig' columns for both groups are less than .05. This indicated that the pretest scores of the five comprehension sub-skills were not normally distributed, so non-parametric test could be performed to analyze the data.

Thus, having the assumptions met, the independent sample test was run to check whether the overall reading pretest mean scores difference between the two groups was statistically significant or not before the training. But, since the assumptions were violated, non-parametric test was run to compare the pre mean scores of the five reading sub skills.

Table 4 Independent sample t-test for both groups' overall reading pretest scores

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Pretest scores of the control and experimental group	Equal variances assumed	3.112	.081	-.750	85	.455	-.451	.601	-1.646	.745
	Equal variances not assumed			-.752	82.607	.454	-.451	.600	-1.644	.742

Table 4 displays the independent sample t-test result for reading pretest scores of the CG and EG before the training. The result ($T = -0.750$, $Df = 85$, $P = .455$) indicated the difference in pretest mean scores between the two groups was not statistically significant as the P value was greater than the cut point 0 .05. Thus, the result suggested that students in both groups were homogeneous in terms of reading comprehension before the training.

Similarly, the reading comprehension sub-skills pretest scores of the two groups were analyzed to know whether the students were similar in terms of the five comprehension sub-skills (main idea, detail, vocabulary, inference, and reference skills) performance. Because the normality assumption was violated (in Table 3) to use an independent t-test, none-parametric test was computed instead. Mann-Whitney U test (an alternative one for independent sample t-test) was performed to compare reading subs kills pretest scores of the control and experimental groups.

Table 5 None parametric test for the five reading sub-skills pretest scores

Reading Sub skills	Ranks		
	Control and Experimental Group	N	Mean Rank
Main idea	CG	43	37.22
	EG	44	50.63
	Total	87	
Detail reading	CG	43	45.23
	EG	44	42.80
	Total	87	
Vocabulary	CG	43	45.77
	EG	44	42.27
	Total	87	
Inference	CG	43	44.17
	EG	44	43.83
	Total	87	
Reference	CG	43	46.65
	EG	44	41.41
	Total	87	

As can be seen in Table 5, the mean rank of the EG for the main idea was higher (Mr=50.63) than the average rank of the CG (Mr=37.22) before the training. On the other hand, the mean ranks of the CG in terms of reading for detail, vocabulary, inference and reference skills were slightly higher than the pretest mean rank of the EG. Mann-Whitney U test was performed in the following Table to see whether the differences were significant or not.

Table 6 Mann-Whitney U test

	Main idea	Detail	vocabulary	Inference	Reference
Mann-Whitney U	654.500	893.000	870.000	938.500	832.000
Z	-2.529	-.465	-.676	-.079	-1.131
Asymp. Sig. (2-tailed)	.011	.642	.499	.937	.258

The Mann-Whitney U test result ($U=654.5$, $P=0.011$) in Table 6 showed that a significant difference was found between the CG and EG concerning reading for main ideas before the treatment. This means students in both groups were not at similar levels in identifying main ideas since the P value was greater than the cut point ($P=0.11$) However, the Mann-Whitney U test results for the rest of comprehension (detail, vocabulary, inference and reference) skills were not statistically significant since the values of P were greater than 0.05. Thus, the students in both groups had nearly similar performance in terms of the four reading comprehension sub-skills except reading for the main idea. The next section presents students' overall RSU as well as sub-strategy categories pretest questionnaire results.

4.1.2 Findings of Questionnaire before the Training

Similar to the pre-reading test, before the training, the RSU questionnaire was administered to both groups whose mean scores were calculated to make sure whether the two groups were similar with regard to their RSU or not and to identify their current strategy use level. As a result, the RSU questionnaire pretest mean scores for each category as well as for the overall strategy of the two groups, were compared. First, descriptive statistics results of both groups each strategy category questionnaire results are presented in the following table.

Table 7 Descriptive statistics of the six RSU categories' questionnaire before the training

Group		Pre memory total	Precognitive total	Pre compensation	Pre-Meta Total	Pre-affective total	Pre Social total
CG	Mean	2.6919	2.7641	2.6589	2.5023	2.4791	2.3798
	N	43	43	43	43	43	43
	Std. Deviation	.29296	.22455	.32925	.24445	.22314	.27776
EG	Mean	2.5625	2.5909	2.5833	2.6000	2.6091	2.5530
	N	44	44	44	44	44	44
	Std. Deviation	.30559	.30592	.29749	.24778	.21111	.27790

Based on Oxford's (1990) suggestion, the results in Table 7 indicate that the CGs were medium RSU level for memory (M=2.69), cognitive (M=2.76), compensation (M=2.65), and metacognitive (M=2.5) strategies, whereas they had low mean scores for affective (M=2.4791) and social (M=2.3798) strategies. On the other hand, students in the EG were medium strategy users in each of the six strategy strategies before the training. Therefore, students in both groups were relatively at similar levels of RSU (except the low mean scores for affective and social strategies of the CGs) before the training. In addition, the overall RSU questionnaire scores of the control and experimental groups were calculated using descriptive and inferential statistics. First, descriptive statistics for the overall questionnaire scores are displayed in Table 8.

Table 8 Descriptive statistics of both groups' overall RSU questionnaire scores

Group	sum	Mean	N	Std. Deviation
CG	111.70	2.5978	43	.14561
EG	113.81	2.5867	44	.13994

As shown in Table 8, before the training, the overall RSU questionnaire mean score of the CG (M=2.5978) seemed slightly higher than the mean of EG (M=2.5867). An independent sample test was computed to check whether the slight mean difference was statistically significant or not. First, Kolmogorov-Smirnov's test was performed to check the normality of the pretest data. The results are presented in the following table.

Table 9 Kolmogorov- Smirnov's test for both groups' pre-overall questionnaire scores

	Control and Experimental Group	Kolmogorov-Smirnova		
		Statistic	Df	Sig.
Pre overall RSU questionnaire	CG	.102	43	.200*
	EG	.107	44	.200*

As can be seen in Table 9, Kolmogorov-Smirnov tests was computed to test whether the assumption of normality was met or not to use either parametric or non-parametric tests.

The results under the 'Sig' column are larger than .05, which implies that the data gained from both groups before the training, were normally distributed. Then, an independent sample t-test was performed to see if the overall RSU questionnaire mean scores difference between the two groups were statistically significant or not. The result is presented as follows.

Table 10 Independent sample t-test for both groups' RSU questionnaire scores

	Levene's Test for Equality of Variances		t-test for Equality of Means				
	F	Sig.	T	Df	Sig. (2- tailed)	Mean Differe nce	Std. Error Difference
Equal variances assumed	.566	.454	.36 1	8 5	.719	.01106	.03062

Table 10 presents the independent sample -t-test results for the control and the experimental groups' overall RSU questionnaire prior to the training. The result (T=.361, Df=85, P=.719) showed that there was no statistically significant difference between the two groups with regard to their overall RSU questionnaire mean scores before the training. The finding was substantiated with data from an open-ended item that was added to the close-ended questionnaire. The open-ended item enabled students to mention RSs they have been using to resolve difficulties in reading English. Consequently, out of eighty-seven participants, three students from the EG wrote using a dictionary; nine students in both groups wrote scanning and only three students mentioned skimming. Five students from both groups stated that they apply guessing in their reading, and three students mentioned taking notes while reading. However, the rest of the students in both groups did not fill the space. Thus, the overall findings from the two instruments (reading comprehension test and RSU questionnaire) call for the need for training.

Afterward, having checked students' homogeneity with regard to reading comprehension test and RSU before the training, students in the EG were exposed to explicit instruction in a combination various (memory, cognitive, compensation, metacognitive, affective and social) RSs. Then at the end of the training, reading comprehension test and RSU questionnaire were administered to both groups followed by interviews with the EG to

address the research questions stated before. However, data obtained through observation were analyzed before the analysis of the main data. As mentioned earlier, observation conducted was for follow-up purpose (to see whether or not the training was conducted consistently as intended). It was conducted when students were taught reading skills by a trained teacher. Hence, having the checklists, the researcher put tick marks for each day of the observation sessions. The results are presented below followed by an analysis and explanation of the data.

4.1.3 Findings of Classroom Observation

Table 11 Results of reading class observation

The teacher:	Ob.1	Ob.2	Ob.3	Ob.4	Ob.5	Ob.6	Ob.7	Ob.8	Ob.9	Ob.10	Yes	No	% of occurrences (Yes)
1 introduces the daily lesson topic/title	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	9	1	90
2 activates students' background knowledge of the topic and strategy use	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	-	100
3 presents and explains the reading strategies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	-	100
4 explicitly models the strategies instruction using sample reading activities	✓	✓	✓	✓	✓	✓	✓	✓	-	✓	9	1	90
5 motivates students to use reading strategies	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	9	1	90
6 facilitates pair and group works	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	9	1	90
7 guides the students to apply the RSs in activities(e.g. supporting students while summarizing a text)	-	✓	✓	✓	✓	-	✓	✓	✓	✓	8	2	80
8 gives feedback to students within the process	-	✓	✓	✓	✓	-	✓	✓	✓	✓	8	2	80
9 encourage self-assessment through peer working	✓	✓	✓	✓	-	✓	✓	✓	✓	✓	9	1	90
10 promotes the use of reading strategies in different texts or topics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	10	-	100

Depending on the observation checklist presented in the above Table and the data from the checklist filled by the teacher together with the researcher's field notes, during each teaching session, the proposed RSs were introduced, modeled and practiced with different reading activities. The teacher explicitly taught what the specific RSs are, why and how they can be used. As can be seen in Table 11, during all observation sessions, the trained teacher was observed while activating, presenting and explaining the RSs, followed by modeling, promoting and facilitating students to be in groups or pairs to use the learned strategies in reading tasks. For instance, during all observation sessions, the teacher was observed while asking students what strategies they have been using in reading English texts. However, from the observation, it can be noticed that all items were not fully practiced; for example, the topic of the passage was not introduced in the last observation session, and the students were not given appropriate feedback during the first and the sixth observation sessions.

Moreover, based on the researcher's field notes and check sheets, during the preparation stage of the first-day reading lesson ('**The challenge of climate change**') students were asked if they knew anything about the topic and what strategies they were using while reading; in the presentation stage- the teacher presented, named and modeled the target reading strategies with reading activities; in the practice stage-students were motivated and guided to practice strategies they have learned with specific reading activities; during the evaluation stage-students were encouraged to evaluate their success or failure in applying strategies they learned. Finally, during the expansion stage, students were encouraged to use the learned strategies outside the class for the new tasks and in homework. Moreover, the teacher taught the target strategies in line with activities of the three reading stages (the pre-, during and post-reading). For instance, predicting and semantic mapping were introduced and demonstrated to the students during the pre- and while reading stages. Then, she tried to point out the important role of these strategies and skills in dealing with different types of texts. The students practiced the learned strategies, for instance, they took notes and did comprehension questions during reading followed by an evaluation of the text they read in the post-reading stages. They were also involved in pair and group work.

In this way, the teacher taught the students to implement different strategies while reading to understand the passages and answer comprehension questions. Throughout the course, students had the opportunity to practice strategies for performing the reading task, and the teacher provided feedback and assistance to students when necessary. The students were motivated to evaluate their progress using strategies they learned and transfer to the new tasks outside the class. Mostly, each strategy was taught after introducing a passage to be read.

Moreover, the trained teacher's feedback in the check sheets indicated that most of the items in the checklist were implemented during reading classes; however, the teacher commented that the shortage of time was a challenge for not properly practicing all selected strategies. Finally, both the comments of the trained teacher and the classroom observation indicated that the shortage of time was a challenge for not fully practicing all the strategies with different reading tasks during each day. Hence, because of time limitations, it is unlikely to ensure that all the selected strategies were effectively practiced and applied in all reading tasks.

Subsequently, at the end of the training, reading comprehension and RSU questionnaire posttests were administered to the students in both groups, and students in the EG were interviewed how they feel about the training. The findings are discussed as follows.

4.1.4 Findings of Overall Reading Comprehension Posttest

The first research question investigated the effect of explicit instruction in combination RSs on students' overall reading comprehension performance. To answer this question, the overall reading comprehension posttest mean scores of the experimental and control groups were compared using descriptive and inferential statistics. First, descriptive statistics posttest results of the two groups are presented in the following table.

Table 12 Descriptive statistics for both groups' overall reading post-test scores

Group	N	Sum	Mean	Std. Deviation
CG	43	617	14.35	1.963
EG	44	754	17.14	3.324

As can be seen in Table 12, the reading posttest mean score of the EG ($M = 17.14$) was higher than the posttest mean score of the CG ($M = 14.35$). Thus, an independent sample t-test was performed to verify if there was a statistically significant difference between the post-test mean scores of the two groups. First, the Kolmogorov-Smirnov test was performed to check whether the assumptions of using the t-test were met or not.

Table 13 Kolmogorov-Smirnov test of the two groups' overall reading post-test scores

Control and Experimental Group	Kolmogorov-Smirnova		
	Statistic	Df	Sig.
CG	.129	43	.071
EG	.111	44	.200*

Table 13 depicts the Kolmogorov-Smirnov test results for both groups' posttest scores. As can be seen, the numbers under the 'Sig' columns for both groups are larger than .05. This led the researcher to conclude that both control and experimental groups' posttest scores were normally distributed, which implies the fulfillment of the assumptions in using T-test. Therefore, an independent samples t-test was run to see if a significant difference existed in the two groups' post-mean scores concerning overall reading comprehension performance. The result is displayed in the following table.

Table 14 Independent sample t-test for both groups' overall reading post-test mean scores

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Post-test scores of the control and experimental groups	Equal variances assumed	9.130	.003	-4.749	85	.000	-2.788	.587	-3.955	-1.620
	Equal variances not assumed			-4.775	70.022	.000	-2.788	.584	-3.952	-1.623

As mentioned before, the overall reading posttest mean score of the CG was 14.35 but the post-mean score of EG was 17.14, suggesting the EG did better in reading comprehension than CG after the training. An independent sample t-test was run to determine whether the difference was significant or not. *Looking at Levene's test of Equality of variance in Table 14, the significance value in the first row is .003 which is less than .05, which indicates equality of variance is not assumed; therefore the results in the second row should be taken.* Hence, the result ($t=-4.775$, $DF=70.022$, $p=.000$) shows that a statistically significant difference was found between the two groups' post-test mean scores. The effect size was 1.056, suggesting the magnitude of the mean difference between the two groups was high. Moreover, to examine whether there was a statistically significant difference between the pre and post-overall reading comprehension means scores within the groups, a paired sample t-test was performed. First, descriptive statistics of the overall reading pre and post-test scores for each group are presented below followed by paired sample t-test results.

Table 15 Descriptive statistics for the two groups' pre and post-overall reading test scores

Group		M	N	Std. Devia tion
EG	Pre-test	13.61	44	3.059
	Post-test	17.14	44	3.324
CG	Pre-test	13.16	43	2.516
	Post-test	14.35	43	1.963

Table 15 shows the descriptive results of the control and experimental groups' pre and post-over oval reading comprehension test scores. Based on the result, the progress in mean scores for both groups is seen. The posttest mean scores (M=17.14) of the EG were greater than the pretest mean (M=13.61) of the same group. Similarly, the posttest mean score (M=14.35) of the CG was higher than the pretest mean (M=13.16). Thus, a paired sample t-test was performed if the observed differences within each group were statistically significant. Table 16 depicts the comparison of pre and post-test mean scores of the EG using paired sample t-test, first.

Table 16 Paired sample test for comparing the EG's pre and post-reading test mean scores

		Paired Samples Test							
		Paired Differences			95% Confidence Interval of the Difference		T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	Pre and post-test scores of the EG	-3.523	2.873	.433	-4.396	-2.649	-8.133	43	.000

The result in Table 16 indicated that there was a statistically significant difference between the pretest and posttest mean score of the EG (P=.000). To put it differently, the EG significantly improved their reading comprehension performance after the intervention. Moreover, the Effect size was 1.1, suggesting the magnitude of the improvement was strong.

Similarly, to check whether there was a statistically significant difference between the pre and post-overall reading comprehension mean scores of the CG, paired sample t-test was performed in the following table.

Table 17 Paired sample test for comparing the CG's pre and post-reading test scores

		Paired Differences			95% Confidence Interval of the Difference		T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	Pre and post-test scores of the CG	-1.186	2.163	.330	-1.852	-.520	-3.596	42	.001

The paired sample t-test result ($t=-3.596$, $df=42$, $P=.001$) in Table 17 showed that there was a statistically significant difference between the pre and posttest mean scores of the CG. However, the effect size was 0.53, suggesting the magnitude of the change was moderate.

In sum, both independent and paired sample t-test results indicated that students in the EG showed significant improvement in their overall reading comprehension performance with a strong effect size after. Students in the EG also significantly enhanced the three comprehension sub-skills as compared to students in the CG. The CG also significantly improved their reading comprehension performance in the posttest, but the magnitude of the improvement was moderate unlike that of the EG, which indicates the usefulness of the training in promoting students' reading comprehension performance.

4.1.5 Findings of Reading Comprehension Sub-skills Posttest

The second research question examined whether the training in combined reading strategies significantly enhances the EG's comprehension sub-skills, namely: reading for main idea, detail, vocabulary, inference, and reference skills as compared to the CG's. For this purpose, the two groups' post-mean scores in the five reading comprehension sub-skills were compared. First, the Kolmogorov-Smirnov test for the posttest scores of the five comprehension sub-skills were checked as follows.

Table 18 Kolmogorov-Smirnov test for the five groups reading sub-skills posttest scores

Reading subs kills	Control and Experimental group	Kolmogorov-Smirnova		
		Statistic	Df	Sig.
Main idea	CG	.196	43	.000
	EG	.166	44	.004
Detail	CG	.251	43	.000
	EG	.268	44	.000
Vocabulary	CG	.229	43	.000
	EG	.230	44	.000
Inference	CG	.349	43	.000
	EG	.374	44	.000
Reference	CG	.345	43	.000
	EG	.362	44	.000

The above Table presents Kolmogorov-Smirnov^a test results for the five reading comprehension sub-skills post-test scores. As can be seen, the value of P for each sub-skill mean score in the posttest was less than 0.05, indicating the data were not normally distributed. Hence, the parametric test (t-test) was not possible to analyze the data. Thus, the five sub-skills posttest scores of the two groups were analyzed using non-parametric statistical tools. The results are presented in Table 19.

Table 19 Non-parametric test for the two groups' five reading sub-skills post-test scores

	Groups	N	Mean Rank
Main idea	CG	43	38.51
	EG	44	49.36
	Total	87	
Detail	CG	43	35.73
	EG	44	52.08
	Total	87	
Vocabulary	CG	43	30.98
	EG	44	56.73
	Total	87	
Inference	CG	43	40.49
	EG	44	47.43
	Total	87	
Reference	CG	43	42.74
	EG	44	45.23
	Total	87	

Table 19 presents the non-parametric test results of the five comprehension sub-skills post-mean scores. As can be seen, the mean rank (Mr=56.73) of the EG for vocabulary was the highest followed by the mean rank of reading for details (Mr=52) and main ideas (Mr=49) of the same group. The post-mean ranks of the rest reading sub-skills (inference and reference) were also better than the average post-mean rank of the CG. The Mann-Whitney U test was computed to check whether the differences were statistically significant.

Table 20 Mann-Whitney U test results for the five reading sub-skills

	Main ideas	Details	Vocabul ary	Inferenc e	Referenc e
Mann-Whitney U	710.000	590.500	386.000	795.000	892.000
Z	-2.068	-3.220	-4.904	-1.472	-.530
Asymp. Sig. (2-tailed)	.039	.001	.000	.141	.596

Table 20 indicates the separate analysis of the ‘Mann-Whitney U test for the five reading sub-skills. The result showed that a significant difference was found between the control and experimental groups in terms of the three reading comprehension skills: reading for the main ideas, details and vocabulary since the P values for the three skills were less than the cut-off point ($P < 0.05$). To put it differently, the results of Mann-Whitney U for the post mean of the main idea ($Z = -2.068$, $P = 0.039$) revealed that there was a statistically significant difference between the two groups in favor of the EG. In addition, the posttest results for detail reading ($Z = 3.220$, $P = 0.001$) showed that the difference was statistically significant. Similarly, the posttest mean score of vocabulary skill ($Z = -4.904$, $P = 0.00$) indicated that the difference between the two groups was statistically significant. On the other hand, although the post-test means of the EG for inference and reference skills were higher than the post-means of the CG, the Mann-Whitney U test result showed that there were no significant differences between the two groups in terms of inference ($P = 0.141$) and reference ($P = 0.596$) skills since the P-values were higher than 0.05.

4.1.6 Findings of Questionnaire after the Training

The third research question aimed to evaluate whether instruction in combined RSs affects students’ RSU. To answer this question, the post-overall RSU questionnaire scores of the

two groups were compared using descriptive and inferential statistics. Descriptive analysis for each strategy category items and total means of each strategy category (memory, cognitive, compensation, metacognitive, affective, and social) are depicted below.

Table 21 Descriptive statistics for the two groups' memory strategies use after the training

No	Memory reading strategies	Control Group			Experimental Group			
		Mean	N	Std. Deviation	Mean	N	Std. Deviation	N
1	I think of relationships between what I already know and new things that I read in reading English.	2.5581	43	.58969	4.0227	44	.59018	87
2	In my reading, I make mental pictures or visualize information to remember what I read.	2.6279	43	.75666	3.6818	44	.70785	87
3	I try to remember the new English words or phrases by remembering their location on the page, on the board, or on a street sign where I read it.	2.4186	43	.54478	3.6136	44	.61817	87
4	I use new English words in a sentence so I can remember them.	2.4884	43	.50578	3.4773	44	.66433	87
Total Mean		2.523	43		3.698	44		

Table 21 depicts the control and experimental groups' questionnaire mean scores for each items of memory strategy as well as the total mean after the intervention. Based on the result, the EG showed an increase in each item of memory strategies as compared to the CG. The EG's specific memory strategy mostly affected was item 1 (creating relationships between what students already know and new things that they read in reading English, i.e semantic mapping) (M=4.022), followed by item 2 and item 3 (creating mental pictures/imagery for understanding). The lowest mean was item 4 with (M=3.477) referring to medium strategy use. Overall, the EGs scored higher mean scores (M=3.698) than the CG (M=2.523) in terms of overall memory strategy. The next table displays the results of the control and experimental groups' responses to cognitive strategy items and their total mean.

Table 22 Descriptive statistics for the two groups' cognitive strategies use after the training

	Control and Experimental Group					
	Control Group			Experimental Group		
	Mean	N	Std. Deviation	Mean	N	Std. Deviation
1. I read English words, phrases, or sentences several times for complete understanding.	2.4884	43	.50578	3.7500	44	.65147
2. I predict the passage before reading using information such as title, heading and pictures.	2.5116	43	.59250	3.5000	44	.62877
3. I skim an English passage (read over the passage quickly) to get the general idea	2.4419	43	.50249	3.4318	44	.62497
4. I scan in reading a text to get specific ideas.	2.3721	43	.61811	3.6364	44	.74991
5. I underline or circle key information in the text to help me understand what I read	2.5116	43	.55085	3.4091	44	.65833
6. I take short notes while reading to help me understand what I read.	2.5581	43	.62877	3.5682	44	.72810
7. I make summaries of information that I read in English.	2.6047	43	.58308	3.4318	44	.72810
Total mean	2.49			3.53		

Based on the result of students' responses in each cognitive strategy item, the EG showed an increase in cognitive strategy use after the intervention as compared to the CG. For item 1 (reading English words, phrases, or sentences several times for complete understanding. i.e. practicing), the EGs practice reading usually. Similarly, they usually predict, scan, and take notes from the text, but they sometimes skim, underline and summarize a given passage after the intervention. In general, the participant's response for the overall cognitive strategy indicated that the EGs (M=3.53) frequently used cognitive strategies after they received the training.

Table 23 Descriptive statistics for the two groups' compensation strategies use after the training

No	Compensation reading strategies	Control and Experimental Group					
		Control Group			Experimental Group		
		Mean	N	Std. Deviation	Mean	N	Std. Deviation
1	I use linguistic clues (such as suffixes, and prefixes) to help me better understand what I am reading.	2.5814	43	.54478	3.4545	44	.58883
2	I use context clues to help me better understand what I am reading.	2.5814	43	.66306	3.4773	44	.66433
3	I read English without looking up every new word in a dictionary.	2.6279	43	.57831	3.4318	44	.62497
	Total mean	2.59	43		3.45	44	

Depending on the result in the above table, the EG showed better use in each of the three compensation strategy items in comparison to the means of the CG after the intervention. Generally, the total mean scores of compensation strategies indicated that the EGs' did better (M=3.45) than the CG (M=2.59), however, both groups appeared to be medium strategy users after the intervention.

Table 24 Descriptive statistics for the two groups' metacognitive strategies use after the training

No	Metacognitive reading strategies	Control and Experimental Group					
		Control Group			Experimental Group		
		Mean	N	Std. Deviation	Mean	N	Std. Deviation
1	I notice my mistakes in reading English and use that information to help me do better.	2.6279	43	.57831	3.6136	44	.61817
2	I plan my schedule so I will have enough time to read English texts.	2.5349	43	.54984	3.3864	44	.49254
3	I check my understanding when I come across new information	2.5116	43	.55085	3.5227	44	.66433
4	I have clear goals for improving my reading skills.	2.5581	43	.50249	3.4773	44	.62835
5	I try to check my progress when I read text.	2.6047	43	.49471	3.4545	44	.62708
	Total mean	2.56	43		3.49	44	

Table 24 displays the control and experimental groups' responses to each item of the metacognitive strategies questionnaire after the training. The result showed that the EG scored high mean scores in item 1 (realizing one's mistakes in reading) and item 3 (checking one's understanding or monitoring) with $M=3.6$ and $M= 3.5$, respectively. Students in both groups scored medium strategy use for the rest metacognitive strategy items. Similarly, the total metacognitive mean score revealed that both groups were medium metacognitive strategy users although the mean of the EG was higher than their counterparts. In other words, both groups seem to apply metacognitive strategies sometimes after the training.

Table 25 Descriptive statistics for both groups' affective strategies use after the training

No	Affective reading strategy items	Control and Experimental Group					
		Control Group			Experimental Group		
		Mean	N	Std. Deviation	Mean	N	Std. Deviation
1	I take deep breaths to lower my anxiety even if I fail to understand a text.	2.5116	43	.55085	3.5227	44	.69846
2	I notice if I am stressed or nervous when I am reading English.	2.5116	43	.50578	3.5000	44	.62877
3	I talk to someone else about how I feel when I am reading in English.	2.6047	43	.54070	3.5227	44	.73100
4	I try to reduce my anxiety when I compete to do some difficult reading tasks.	2.5349	43	.50468	3.6818	44	.82892
5	I give a reward or treat myself when I do well in reading English.	2.5349	43	.50468	3.5000	44	.69884
	Total mean	2.53	43		3.54	44	

Depending on the result in the above table, while CG appeared to be at a medium level in each item of the affective reading strategy use, the EG scored high means for each item; for instance, they reduce their anxiety, regulate and give rewards themselves when they do well in reading English after the training. Similarly, the total mean score indicated that the EG applied the affective reading strategy (M=3.54) highly unlike that of the CG (M=2.53).

Table 26 Descriptive statistics for the two groups' social strategies use after the training

No	Social reading strategy items	Control and Experimental Group					
		Control Group			Experimental Group		
		Mean	N	Std. Deviation	Mean	N	Std. Deviation
1	If I do not understand a text, I ask my classmates or teachers for clarification.	2.4884	43	.50578	3.5682	44	.72810
2	I work with other students to improve my reading skills.	2.5581	43	.62877	3.3864	44	.72227
3	I try to learn about the culture of English readers.	2.7674	43	.75078	3.4545	44	.66313
	Total mean	2.6	43		3.46		

The above table presents the two groups' questionnaire results in social strategy use items as well as the total mean. Based on the results, the EG showed a better mean in each item and scored higher strategy use for item 1(asking teachers and students for clarification)) unlike that of the CG. However, both groups showed medium use in terms of the total social strategy. The following table presents the mean scores of each strategy category, the sum as well as the overall mean score.

Table 27 Descriptive statistics for the two groups' six categories as well as the overall strategy use

strategy categories	Mean of CG (N=43)	Mean of EG (N=44)
memory	2.52	3.69
Cognitive	2.49	3.53
Compensation	2.59	3.45
Metacognitive	2.56	3.49
Affective	2.53	3.54
Social	2.60	3.46
Sum	109.44	155.59
Overall mean	2.54	3.53

Table 27 displays descriptive statistics for both groups' responses for the six strategy categories and the overall RSU questionnaire mean scores after the training. Based on the result, the EG showed a greater increase in all sub-strategy categories than the CG. From the six sub-categories, memory strategy (M=3.69) was mostly affected by the intervention followed by affective (M=3.54) and cognitive (M=3.53) strategy use. The rest (compensation, metacognitive and social) strategy categories were affected almost equally. Furthermore, the overall strategy use sum(S=115.59) and the overall mean score (M=3.53) of the EG were higher than the sum(S=109.44) and the mean (M=2.54) of the CG. An independent sample t-test was performed to check whether the observed difference between the two groups' overall strategy use mean scores was statistically significant or not. But, before applying this tool, Kolmogorov-Smirnov's test was computed to check whether the assumption of normality was met or not, and the result is presented below.

Table 28 Kolmogorov-Smirnov's test for both groups' RSU questionnaire scores after the training

Tests of Normality				
	Control and Experimental Group	Kolmogorov-Smirnova		
		Statistic	Df	Sig.
Post overall RSU questionnaire for CG and EG	CG	.101	43	.200*
	EG	.110	44	.200*

As can be seen in Table 28 Kolmogorov-Smirnov tests show normality assumptions. The result reveals that the numbers under the 'Sig' column are larger than .05 which implies that the data gained from both groups were normally distributed. As reported before the overall RSU questionnaire mean score (M=3.5362) of the EG was higher than the mean score (M=2.5452) of the CG after the training. Then, to determine whether the observed mean difference between the two groups was statistically significant or not, an independent sample t-test was performed.

Table 29 Independent sample t-test for the two groups' RSU questionnaire scores

	Levene's Test for Equality of Variances		t-test for Equality of Means					95% Confidence Interval of the Difference	
	F	Sig.	T	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Equal variance assumed	7.490	.008	-27.838	85	.000	-.99098	.03560	-1.06175	-.92020
Equal variance not assumed			-27.981	72.344	.000	-.99098	.03542	-1.06157	-.92038

The result in Table 29 ($F=7.490$, $df=85$, $P=.008$) confirmed that the EG significantly outperformed the CG in terms of overall RSU questionnaire mean scores after the training. In other words, a statistically significant difference was found between the two groups in terms of overall questionnaire mean scores in favor of the EG.

In addition, a paired sample t-test was computed to see if a significant difference existed in RSU questionnaire mean scores before and after the training within each group. As reported before, the mean score of the EG after the training ($M=3.5362$) was higher than mean score ($M=2.58$) of the same group, the paired sample was performed to determine whether the difference was statistically significant or not. The result is displayed in Table 30 below.

Table 30 Paired sample test for the EG's overall RSU questionnaire scores

Pair	Pre & post	Paired Differences			95% Confidence Interval of the Difference		T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
1	overall strategy means of the EG	-.94949	.22080	.03329	-1.01662	-.88237	-28.525	43	.000

Table 30 displays the paired sample t-test results in the overall RSU questionnaire mean scores of the EG before and after the training. Based on the result, a significant difference was reported in RSU mean scores of the EG, in using strategies as a whole ($t=-28.525$, $df=43$, $P=.000$)).

Moreover, paired sample t-test was computed to compare the RSU questionnaire mean scores of the CG before and after the training; the result is presented in the following Table.

Table 31 Paired sample test for the CG's overall RSU questionnaire scores

Pair	Pre & post	Paired Differences			95% Confidence Interval of the Difference		T	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
1	overall strategy means for the CG	.05254	.18328	.02795	-.00386	.10895	1.880	42	.067

Table 31 presents a paired t-test analysis for the CG. The result ($t=1.0895$, $df=42$, $P=.067$) revealed that there was no significant difference in RSU questionnaire mean scores for the CG before and after the training as the P value was greater than the cut point.

To sum up, the independent sample t-test result indicated that the EG significantly outperformed the CG in terms of overall RSU questionnaire mean scores after the training. In addition, the paired sample t-test result revealed that students in the EG significantly increased their overall RSU after the received various RSs. The next part presents data gained from interviews.

4.1.6 Findings of Interview

As mentioned earlier, after the intervention, an interview was conducted with six students in the EG to answer the final research question, which was intended to substantiate the data gained via post-reading and the RSU questionnaire. In other words, the interview aimed to get participants' views about the role of training in promoting their reading ability. The interview questions comprised three main items followed by probing questions. The main questions were, what do you think about the benefit of the reading strategy use training that was conducted during the last semester? Do you think using reading strategies that were practiced during the training is important to improve your reading comprehension? If yes can you mention some important strategies? Is the new teaching method (strategy training) different from the conventional teaching reading methods? In this context, one major theme (i.e. participants' view about the benefit of the training in promoting their reading ability) was identified followed by two sub-themes (participants' perceived reading strategies and their views on whether the training was different from the existing one). In other words, since the main aim of the interview was to get participants' views about the benefit of RSU training in promoting their reading ability, they were requested to respond whether the training helped them to enhance their reading comprehension ability and were asked to mention some important RSs they learned during the training. Finally, they were asked to compare the new teaching method with the conventional one. In this way, the major theme together with sub-themes of the interview data, are discussed as follows.

Participants View the Benefit of RSU Training in Promoting Reading

When participants were asked about the benefit of the reading strategy use training in promoting their English reading, all six interviewees acknowledged the benefit of the training in improving their reading and agreed that they have developed positive views. Participants reported that they were encouraged to use the strategies they learned in reading. For instance, one of the interviewees, (S3) realized the importance of using strategies she learned whenever she planned to use them in her reading. Another participant, Hana started to ask questions herself about whether she has been using the strategies or not, and her awareness about RSU for her reading including the steps while using strategies has been improved after the training. Another participant (S6) also developed positive views towards the training in which he learned how to read a given text using strategies (see Appendix J &K, both Amharic verbatim and English version). Participants' perceived important strategies and comparisons made by them about the two teaching methods are explained as follows.

Participants perceived strategies to promote reading skills

When participants were asked to mention important strategies they learned during the training, the six interviewees who were taught RSs seemed to agree that the strategies they learned could support their reading difficulties. For instance, one of the interviewees (Sara) acknowledged the benefits of the training in helping her to comprehend English text easily. She underlined that among others, semantic mapping, highlighting and taking notes were very important to increase her reading ability. She was very excited about the strategy of semantic mapping, and said, "Semantic mapping can support me to comprehend passages easily and to create a kind of picture in my mind to remember the keyword words surrounding the text". She indicated that she wished she could have known semantic mapping before so that she could apply it in all of her reading to increase her knowledge of vocabulary. This finding confirmed the post-test questionnaire result of memory strategy, particularly semantic mapping item that was typically highly affected by the intervention. Sara added that if students don't understand or don't know what they are reading, they will not be motivated to read, but if they use the strategies they have learned during the training, they can be motivated to read and understand what they are reading and be initiated to read more, which in turn rises learners' reading habits.

The interviewees indicated that RSs they have studied can support them in finding out the main ideas, guessing the meaning of difficult words, and predicting the ideas of a passage even during exams more easily than before. For instance. One of the respondents (S2) was very positive about the training, especially because he noticed that the strategies of skimming, scanning, and highlighting were very important for him to reduce his reading comprehension difficulties, he stated “After the training, I like skimming, scanning and highlighting because this is exam time and if we use these strategies when we study we can understand main ideas of a text easily and we can remember what we read during examinations” .He added that “using strategies during reading can help students read better, and the more the readers we have the better development of a country.”(Appendix K).

Another participant (S3) also stated that there are different RSs that students use in reading. For example, she said “We plan, and become eager to know the final idea of the text, underline the main idea or give emphasis to the idea that we want when we read. Underlining the idea helps us to understand fast when we re-read it”.

The training was also helpful for participants as it brought positive changes in their reading ability. When they were asked to mention some important strategies, the interviewees indicated that after reading a certain text, they could understand a text by referring to their short notes or summary instead of looking back at the whole text. For example, from the training, S6 learned that he should take short notes and color or underline the main points and work with his friends to remember the idea of a text later. He noted that “If we don’t have time we can use skimming and scanning strategies”. Another participant in the interview, Hana, found self-monitoring strategy and prediction as very important strategies because she pointed out that self-monitoring helps her to think or plan about her reading, and the prediction was important to her to guess the idea of a passage by looking at the picture or other clue without detail reading. She stated that “self-encouragement is about taking risks, and whenever I am successful in my reading it is good, if not I would encourage and promise myself to improve my reading for next time”.

Comparison of the training with the conventional teaching method

The interviewees were asked to compare the new teaching method (training in reading strategy use) with the conventional method. They seemed to agree that the training was different from the conventional teaching reading method. Most of the interviewees' responses showed that the training has brought them from unconscious use of some strategies to deliberate use of several RSs. One of the interviewees, S6 said, "Yes it is different because if you are giving training it is about additional knowledge, not the existing one."(Appendix K).

On the other hand, two students disclosed that they had been using some strategies unconsciously before they received the training. S3 remembered that she employed some strategies unconsciously in her reading before receiving the training but after the training, she realized that she was aware of various RSs and knew how to use them while doing different reading tasks. Another interviewee (S5) stated that although she was using scanning, skimming, and guessing the meanings of a text before the training, she was aware of the benefit of additional strategies including semantic mapping and other strategies which can help her to read and understand a given passage after the training.

To sum up, the interview data revealed that all the interviewees benefited from the training. They all developed positive experiences about the training hoping that training would support them to read difficult reading texts and easily comprehend them. However, some of them did not hide that they have been using a few strategies (such as skimming, scanning and guessing) in their reading unconsciously, but they noted that they were aware of the use of more RSs after the training and started to apply them deliberately. The interviewees mentioned different strategies they learned from the training including semantic mapping, skimming, not taking, predicting, and summarizing, highlighting self-monitoring, self-encouragement, and working with others, and were encouraged to use them during reading. It is worth mentioning that since the interview was conducted a week before starting the final examination, two interviewees indicated that the training helped them get ready for final examinations not only for English but also for other subject areas. The next section provides a discussion in relation to major findings.

4.2 Discussion

The purpose of this study was to examine whether explicit instruction in combination of various RSs contribute to grade eleven students' reading comprehension performance and their RSU in Tesfa Birhan Secondary School. As a result, in this section, the findings of the study are interpreted in line with the research questions and related literature.

First, as presented in the finding section, before the training, a reading comprehension test and RSU questionnaire were administered to the control and the experimental groups. The pretest aimed to determine the two groups' homogeneity in terms of reading comprehension performance and RSU before the training. Accordingly, the independent sample t-test showed that there was no statistically significant difference between the control and experimental groups in overall reading comprehension pretest mean scores. In addition, the Man-Whitney test results revealed that both groups were almost similar with regard to the four skills (detail, vocabulary, reference and inference items) since the P values were less than .05 except for reading for the main idea. Thus, the study ensured that students in both groups were nearly homogenous in terms of reading comprehension performance before the training. Similarly, students in both groups' homogeneity concerning RSU was assessed via a questionnaire before the training. The RSU questionnaire mean scores of the CG and the EG indicated that the students in both groups were relatively homogenous in their overall strategy usage, and based on Oxford's (1990) suggestion, both groups were medium-reading strategy users before the intervention.

Therefore, students need to be trained on how and where to use learning strategies to improve their FL skills (Taheri et al., 2020). As a result, students in the EG were exposed to a four-month explicit instruction in combination of various RSs using the CALLA procedure followed by administration of reading comprehension posttest and questionnaire to both groups. To this end, in line with each research question stated earlier, the findings of the study were discussed as follows.

4.2.1 Effects of RSU Training on Students' Overall Reading Comprehension

The first research question examined the effect of explicit instruction in combined RSs on students' overall reading comprehension performance. To answer this question, the independent and paired sample t-test were performed. The independent sample t-test result between the post-mean scores of EG and the CG showed that there was a significant difference between the two groups in favor of the EG, suggesting that the training had a positive impact on students' reading performance (see Table 14). In other words, the finding indicated that after they were taught various RSs, students in the EG significantly outperformed the CG with regard to overall reading comprehension posttest mean scores, and the result of Cohen's *d* for effect size was 1.056, suggesting the magnitude of the mean difference between the two groups was strong. Moreover, the paired sample t-test result indicated that students in the EG significantly improved their post-test mean score with a large effect size. This indicates that the EG significantly improved their overall reading comprehension performance after the training. Similarly, the CG significantly improved their overall reading comprehension performance in the posttest, however, the magnitude of the improvement was moderate unlike that of the EG, suggesting that the training helped the target students to improve their reading comprehension. Therefore, since the training was important to improve the EG's reading comprehension performance, the finding implies that there was a strong association between the training and students' reading performance enhancement. In other words, the training had a positive effect on students in the EG reading comprehension.

This finding supports (Al Raqqad et al., 2019) because after conducting a meta-analysis with 31 similar studies, Al Raqqad et al. (2019) reported reading strategy training appears to improve the comprehension of EFL learners' reading; however, the aforementioned author noted that it is difficult to explicitly state whether some RSs are more effective than others. Specifically, the finding of the current study is in agreement with foreign EFL investigations (Fathi & Afzali, 2020; Karizak & Khojasteh, 2016; Yapp et al., 2021); they found a significant difference between the control and experimental groups with regard to reading comprehension posttest mean scores. However, the fact that the association is significant does not indicate how strong or weak the effect is; hence, the effect size needs

to be calculated (Muijs, 2022). Therefore, the effect size, which was missed in most of the previous studies, was calculated in the present study.

Likewise, the finding of this study is consistent with the findings of previous local researchers (Rahel, 2018; Benti, 2013; Geleta et al, 2022). They confirmed the effectiveness of strategy training in increasing learners' reading abilities. However, Mujis (2020) noted that meeting the assumptions and finding a significant difference doesn't really guarantee that treatment causes a difference in students' performances, suggesting for considering farther attentions given for experimental studies. This is to mean, some important methodological procedures were missed in the previous studies but considered in the present. For example, the previous local studies did not implement any follow-up procedure while the training was conducted, which could negatively affect the outcome of the study. Accordingly, observation, and teachers' check sheets along with field notes, were used in the present study to reduce possible biases in the findings. Moreover, the previous studies lacked details about the number and type of strategies they used, and some of them focused on a few or single strategy categories. Geleta et al. (2022), for instance, seemed to focus on metacognitive reading strategies that require learners to apply a higher order of thinking in their reading. Contrary to this, Razi (2014)) argued that it is preferable to present a repertoire of RSs, as a single strategy could not be suitable to all readers. Therefore, unlike the previous investigations, the current researcher implemented various strategies from different categories while teaching reading. Furthermore, data normality assumptions that were missed in the previous studies, were also checked before performing inferential statistical tools. The effect size was also calculated to determine the magnitude of the change.

4.2.2 Comparing Students' Comprehension Sub-skills Post-test Scores

The second research question scrutinized whether there was a significant difference between the control and experimental groups concerning the five comprehension sub-skills (main idea, detail, vocabulary, reference and inference skills) posttest mean scores. The Mann-Whitney U test result (Table 19 & 20) indicated that there were significant differences between the control and the experimental groups with regard to the three

reading comprehension sub-skills: reading for the main idea, detail reading and vocabulary posttest mean scores. Additionally, although the difference was not statistically significant, the post-test mean scores of the EG for the inference and reference skills were higher than the post-test mean of the CG. The reason for the non-significant difference might have been due to the limited sample size of the two sub-skills. Overall, the finding suggested that explicit strategy teaching enabled the participants of the EG to identify the texts' main ideas, and specific details, guess the meaning of unknown words, infer the implied meaning and recognize references as compared to the CG. Seid (2012) noted that answering comprehension questions such as identifying main ideas, guessing meanings and references may involve reading between the lines and applying precise strategies. Hence, it can be inferred that the significant improvement observed in students' comprehension sub-skills could be attributed to students' awareness and their effective application of various RSs they have taught in their reading. Moreover, students' usage of various RSs such as skimming, note-taking, and guessing during the training, were mostly reported in the questionnaire and interviews after the training.

The current study supports the recommendation of pioneer experts in the field (Grabe, 2009; Jiang & Grabe, 2011; Oxford, 2017), who suggested that students with reading difficulties can be taught a repertoire of reading strategies for better comprehension. The overall finding is in line with Khellab et al. (2022), Manoli et al. (2016) and Razi (2014) who suggested that multiple-strategy instruction is important for EFL learners to overcome their reading comprehension difficulties. This finding specifically confirms the finding of Meang (2014), who conducted a Meta-Analysis on thirty-seven empirical studies in the EFL context and suggested that strategy instruction is more effective for improving the reading comprehension of primary and secondary students compared to beyond high school students. To sum up, the finding of this study tends to indicate that explicit instruction in a combination of various RSs has a positive contribution to grade eleven students' reading comprehension skills.

4.2.3 Effects of Explicit Combined RSs Training on Students' RSU

The purpose of the third research question was to determine whether explicit instruction in combined RSs improves grade eleven students' RSU. In relation to this question, the RSU questionnaire was administered to the control and experimental groups at the end of the training. Then students' responses in each reading strategy item of the six strategy category as well as the overall RSU questionnaire scores of both groups were analyzed. In other words, 4 items of memory, 7 items of cognitive, 3 items of compensation, 5 items of metacognitive, 5 items of affective and 3 items of social strategy as well as the overall RSU questionnaire mean scores of the two groups were calculated. Based on the result, the EG showed a greater increase in using all sub-strategy categories as compared to the CG. The independent sample t-test result indicated that the EG significantly outperformed the CG in terms of overall RSU questionnaire mean scores. In addition, the paired sample t-test result revealed that the students in the EG significantly increased their overall RSU after the training. In addition, after they received the training, the EG seemed to use semantic mapping and imagery memory strategies highly during reading. Semantic mapping is used in the activation of learners' prior knowledge- a strategy that helps readers link previous and current knowledge together (Barrios, 2018). In addition, they appeared to apply practice, note taking and scanning cognitive strategies more frequently in reading than the CG. Similarly, after the training, students in the EG become good guessers using contextual and other cues to get the meaning of words and grasp the implied idea of the text as compared to their counterparts (CG). Furthermore, students who took the training started to plan, monitor and evaluate the strategy use in helping them learn reading. They also reduced their affective factors by giving rewards for themselves, regulating themselves and lowering anxiety when they felt they were doing well. Finally, they usually started to work with one another and ask their teachers for clarification. Thus, the finding supports the claim that students are required to employ a combination of different strategies including prior knowledge during reading (Grabe & Stoller, 2019). Summarizing, forming questions, imaging, predicting, activating background knowledge, and monitoring comprehension, are among the important strategies for the comprehension and promotion of strategic readers (Chamot, 2005; Grabe, 2009).

Looking at both groups' total mean scores in each of the six strategy categories- the EG showed better improvement in the six reading strategy categories (memory, cognitive and affective strategies) than that of the CG after the training. More specifically, the EG obtained high mean scores for memory strategies followed by affective and cognitive strategies. On the other hand, although the EG increased the strategies use in the rest three categories, both groups were at medium levels with regard to compensation, metacognitive and social strategies (see Table 27).

Moreover, Oxford (1990) suggests that students whose strategy mean score lies between 2.5 and 3.4, are interpreted as sometimes strategy use and categorized as medium strategy use whereas the mean between 3.5 and 4.4 refers to usually strategy use and leveled as high strategy users. Thus, depending on the overall RSU questionnaire result, the EG scored a high mean score ($M=3.53$) but the CG use of RSs stayed at the medium level ($M=2.54$). Finally, the independent and paired sample t-test analysis of the post-overall RSU questionnaire mean scores were computed. The independent sample t-test result ($F=27.981$, $df=72.344$, $P=.000$) indicated that the EG significantly outperformed the CG in terms of overall RSU questionnaire mean scores in the post-test. The paired sample t-test result also showed that a statistically significant difference was found in the overall RSU questionnaire mean scores within the EG. Thus, the overall finding suggested that explicit instruction in combination with various RSs had a positive impact on students' frequency of RSU.

The finding that students in the EG significantly outperformed their counterparts in RSU disagrees with the findings of Li et al (2022) who reported that after six weeks of strategy instruction students in the EG did not improve their RSU. In fact, in the present study, the training took about 32 weeks, which was a relatively long duration. That is why, students in the EG significantly improved their frequency of RSU after they received training. In addition, the aforementioned study was conducted abroad where the context is different. Local studies investigating the effect of combined strategies on students' RSU, seemed lacking. In general, the findings of this study support the belief of L2 and FL researchers who claimed that learning strategies are teachable and learners can benefit from being trained in acquiring relevant strategies (Larsen-Freeman, 1991; O'Malley & Chamot, 1990;

Oxford, 1990; Rubin, 1975; Sarafianou & Gavriilidou, 2015). This finding is in line with the notion that the central point of explicit instruction is to create strategic readers who automatically coordinate their strategy use (Koda, 2005).

4.2.4 Participants' Views about the Training

The last research question aimed to assess students' views about the role of RSU training in promoting their reading ability for which participants were very positive in their reflection. All the interviewees who participated during training were positive about the intervention and were motivated to use RSs in their reading. They acknowledged the benefit of the training in helping their reading comprehension difficulty and suggested that students could benefit if they use different strategies during reading. Two of the interviewees did not hide that they had been using a few strategies automatically in reading before the training. However, after the training, they understood the importance of RSs and were motivated to apply additional strategies intentionally while reading difficult English texts. This finding supports the suggestion of Nunan (2003), who stated that "The goal for explicit strategy instruction is to move readers from conscious control of RSs to unconscious use of reading skills" (P.77). The findings also indicated that the RSU training would play a vital role for students in comprehending different subject areas other than English to score better results during examinations. Particularly, participants have found that the strategies of semantic mapping, skimming, not taking, predicting, summarizing, highlighting self-monitoring, self-encouragement and working with others as important strategies among others to improve their reading ability. The finding of the questionnaire also revealed that students in the EG were able to predict, take notes, plan, monitor their reading, and regulate themselves highly during reading. But they sometimes skim, underline and summarize a given passage after the training. The interviewees were very positive about the benefit of semantic mapping in developing their vocabulary knowledge. The strategy of semantic mapping was also mostly affected by the training as reported by students in questionnaire after the training.

In brief, taking the overall findings of the reading comprehension test, RSU questionnaire and interview, explicit instruction in a range of strategies would support students to be strategic readers who can apply suitable RSs while attacking difficult English texts,

independently. This is because the findings from the reading test demonstrate that students who received instruction in a combination of various RSs did significantly better than their counterpart (CG) in terms of the overall reading comprehension performance and the three comprehension sub-skills. Students in the EG significantly outperformed the CG in terms of overall RSU questionnaire mean scores and showed an increase in each of the six strategy categories than that of the CG after the training. Students who participated in the interview also developed positive views about the benefit of RSU training in promoting their reading ability, and they were motivated to employ various RSs during reading.

Hence, the finding of this study implies that explicit instruction in a combination of various RSs can enhance secondary school students' English reading comprehension, which contributes to the debates among experts in literature concerning the number, and the types of strategies to be taught along the methodological procedure. In other words, considering disagreements among researchers about the efficacy of RSs in EFL reading contexts, particularly, about the number and the type of strategies to be taught along with the methodological procedures (e.g. whether strategy instruction should be explicit or implicit), the findings of the current study would contribute to the notion that explicit instruction in a variety of RSs positively influences EFL learners reading ability. In general, the present findings are in line with Aghaie and Zhang (2012), who underlined that EFL learners need awareness about strategies and that they should be trained in strategy use to be independent readers.

CHAPTER FIVE: SUMMARY, CONCLUSIONS, IMPLICATIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter contains the summary, conclusions, implications and recommendations of the study, which are discussed as follows.

5.1 Summary

The general objective of the study was to examine whether explicit instruction in combination of various RSs contributes to reading comprehension performance and RSU of grade eleven students in Tesfa Birhan secondary school. Using a quasi-experimental pretest/posttest design, eighty-seven students of the two intact classes were assigned as the control (N=43) and experimental (N=44) groups. After identifying both groups' homogeneity with regard to reading comprehension and RSU, students in the EG were exposed to explicit instruction in a combination of various RSs about four months whereas the CGs were not involved in such training. Both quantitative and qualitative data were collected and analyzed using descriptive and inferential statistics. Reading comprehension test, RSU questionnaire and interview were utilized to collect the main data. The reading comprehension test, which was administered before and after the intervention, contained the five comprehension subs-skills (reading for the main idea, vocabulary, detail, inference and reference skills). The RSU questionnaire that involved items of the six strategy categories (memory, cognitive, compensation, metacognitive, affective and social strategies) was administered to both groups before and after the intervention. The interview was conducted with students in the EG to support the data obtained from the reading test and questionnaire. Both descriptive (mean) and inferential (independent sample t-test, paired sample t-tests and Man Whitney U test) statistical tools were used to analyze the quantitative data.

Since caution is important while conducting experimental studies, several measures were taken in the whole procedure of this study. For example, the validity and reliability of instruments were checked. Treatment follow up was maintained through classroom observation and follow-up mechanisms to avoid unnecessary biases in the outcomes.

Normality assumptions were checked before applying inferential statistics. The effect size of the intervention on students' reading comprehension, was calculated. In this context, the study specifically addressed the following four research questions:

1. What is the effect of explicit instruction in combined RSs on grade eleven students' overall reading comprehension performance?
2. Is there a statistically significant difference between the control and the experimental groups' post-test mean scores of reading for the main idea, detail, vocabulary, inference and reference sub-skills?
3. What is the effect of explicit training in combined RSs on grade eleven students' reading strategy use?
4. How do students in the experimental group view the reading strategy use training in promoting their reading comprehension?

Concerning the first research question, the independent sample t-test result showed that the control and the experimental groups significantly differed in their reading comprehension posttest mean scores , with a large effect size, suggesting the magnitude of the mean difference between the two groups was strong in favor of the EG. Moreover, paired sample t-test results indicated that students in the EG significantly improved their posttest mean score with a strong effect size.

Regarding the second research question, the Mann-Whitney U test result indicated that students in the EG significantly showed greater improvement in posttest mean scores of the three comprehension sub-skills: identifying main ideas, vocabulary and detailed reading as compared to the CG. The post-test mean scores of the EG for inference and reference skills were also higher than the post-means of the CG though the differences were not statistically significant. Thus, the results suggested that explicit training in a combination of various reading strategies enabled the participants in the EG to identify the texts' main ideas, specific details, guess meaning, infer the implied messages and recognize references as compared to the CG.

In light of the third research question, the post-RSU questionnaire results demonstrated that students who participated in the training seemed to use background knowledge, imagery, practice, note-taking, guessing, planning, and monitoring more frequently than

before. They started to evaluate their learning, reduced their affective factors through giving rewards and regulating themselves and lowered anxiety when they felt they were doing well in English reading more frequently than the CG. They usually started to work with one another and ask their teachers for clarification during reading difficulties. It was found that after they were exposed to explicit instruction with a combination of memory, cognitive, compensation, metacognitive, affective and social strategies, students in the EG obtained high mean scores for memory strategy followed by cognitive and affective strategies whereas both groups were at medium level with regard to compensation, metacognitive and social strategies at the end of the training. The post-overall questionnaire result indicated that, unlike the CG, the EG scored a high mean score. The independent sample t-test result indicated that the observed mean difference was statistically significant in favor of the EG. The paired sample t-test result also showed that a statistically significant difference was found between the pre and post-test-overall RSU questionnaire mean scores within the EGs.

Finally, the findings obtained from the reading test and questionnaire were substantiated by the findings of the post-interview as participants were very positive about the importance of various reading strategies in promoting their reading comprehension ability. Based on the findings of the interview, the training has increased students' RSU awareness and initiated them to use various RSs while reading difficult texts. Thus, based on the findings, the following conclusions have been drawn.

5.2 Conclusions

- The fact that the EG showed better improvement than the CG with regard to overall reading comprehension posttest scores could be attributed to the efficacy of the explicit instruction with a combination (memory, cognitive, compensation, metacognitive, affective and social) of various RSs. Thus, the findings imply that secondary school students' (particularly grade eleven) reading comprehension performance could be enhanced if they are explicitly taught what strategies are (declarative knowledge), why and when they can be used(conditional knowledge), and how to apply them (procedural knowledge) in teaching English reading skills.

- Moreover, students' significant improvement in comprehension sub-skills after the training, could be explained by the effectiveness of the training, which also implies that students with reading difficulties can be explicitly taught a combination of various RSs for better comprehension skills.
- Furthermore, the significant increment in the frequency of RSU by EG after the training might encouraged students to be strategic readers and tackle difficult reading tasks. Hence it can be inferred that the increments in RSU by the EG helped them to significantly improve their overall reading and comprehension sub-skills, and this could be explained by the efficacy of the training provided to the students.
- Finally, students' views about the training have been positively influenced, which makes them apply various RSs intentionally when they read English texts.
- In brief, the improvements in reading comprehension and RSU by students in the EG along with their positive impression about the training, suggest that explicit teaching in a variety of RSs not only improved the target students reading ability but also encouraged them to be strategic readers who can apply different RSs independently while reading English texts. Thus, the overall finding suggests that explicit instruction in a combination of different RSs is vital in promoting secondary school (particularly grade eleven) Ethiopian students' English reading comprehension ability. To this end, the study has highlighted the following pedagogical implications.

5.3 Pedagogical implications

The findings of the study have some important implications in the teaching and learning process of English reading skills. The finding suggested that implementation of explicit instruction in a variety of RSs would improve grade eleven students' reading comprehension ability, which could be considered as one of the inputs to assist secondary school students' reading difficulties. Accordingly, integrating various RSs into grade eleven students' syllabus/textbook would benefit students in attacking challenging English reading tasks. The findings highlight that implementing the implications of sociocultural theory in which students and teachers work with one another, is very important to helping EFL students with reading difficulties. The findings imply that students should be

adequately supported and encouraged to use various reading strategies to avoid their reading comprehension difficulties. Group and pair works in which students share their reading experience and the strategies they use could also facilitate learners' comprehension ability. In other words, students need to be supported and guided by their teacher through explicit instruction in a variety of strategies and work with each other to assist their reading difficulties. Thus, teacher scaffolding that has a significant impact on students' learning reading, shall be continued until students become strategic and independent readers who can apply a combination of various RSs in reading English texts.

5.4 Recommendations

Based on the findings of the study, the following recommendations have been forwarded.

- Integrating various RSs into the grade eleven English for Ethiopia textbook/ syllabus could help improve students' reading comprehension skills,
- Teacher training programs for secondary school EFL teachers shall emphasize the benefit of explicit strategy instruction to promote students' reading comprehension.
- Teaching English reading skills without explicit strategy instruction seems inadequate in the context of Ethiopian secondary schools; therefore, EFL teachers could consider implementing explicit instruction in a variety of combined RSs in teaching English reading. In other words, secondary school students' reading ability could be enhanced if they are guided and supported in applying a variety of strategies while reading difficult English texts. They need to have awareness of the declarative, conditional and procedural knowledge of different RSs.
- Finally, future researchers can consider utilizing delayed tests, in addition to the pre and post-tests, to measure the effectiveness of the training after a long time of treatment withdrawal for comprehensive understanding.

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APPENDICES

Appendix A: Reading comprehension test

Directions: Read through the following two passages carefully and answer the questions below. Each reading passage is followed by some questions about it. Choose the best answer to each question and circle the letter of your choice.

Time: 1hr

Passage One

All mammals feed their young. Beluga whale mothers, for example, nurse their calves for twenty months, until they are about to give birth again and their young are able to find their own food. The behavior of feeding of the young is built into the reproductive system. It is a nonelective part of parental care and the defining feature of a mammal, the most important thing that mammals-- whether marsupials, platypuses, spiny anteaters, or placental mammals --have in common.

But not all animal parents, even those that **tend** their offspring to the point of hatching or birth, feed their young. Most egg-guarding fish do not, for the simple reason that their young are so much smaller than the parents and eat food that is also much smaller than the food eaten by adults. In reptiles, the crocodile mother protects her young after they have hatched and takes them down to the water, where they will find food, but she does not actually feed them. Few insects feed their young after hatching, but some make other arrangement, **provisioning** their cells and nests with caterpillars and spiders that they have paralyzed with their venom and stored in a state of suspended animation so that their larvae might have a supply of fresh food when they hatch.

For animals other than mammals, then, feeding is not intrinsic to parental care. Animals add it to their reproductive strategies to give them an **edge** in their lifelong quest for descendants. The most vulnerable moment in any animal's life is when it first finds itself completely on its own when it must forage and fend for itself. Feeding postpones that moment until a young animal has grown to such a size that **it** is better able to cope. Young that are fed by their parents become nutritionally independent at a much greater fraction of their full adult size. And in the meantime, those young are **shielded** against the vagaries of

fluctuating of difficult-to-find supplies. Once a species does take the step of feeding its young, the young become totally dependent on the extra effort. If both parents are removed, the young generally do not survive.

1. What does the passage **mainly** discuss?

- (A) The care that various animals give to their offspring.
- (B) The difficulties young animals face in obtaining food.
- (C) The methods that mammals use to nurse their young.
- (D) The importance among young mammals of becoming independent.

2. The author lists various animals in **line 5** to

- (A) contrast the feeding habits of different types of mammals
- (B) describe the process by which mammals came to be defined
- (C) emphasize the point that every type of mammal feeds its own young
- (D) explain why a particular feature of mammals is nonelective

3. The word "**tend**" in **line 6** is closest in meaning to

- (A) sit on (B) move (C) notice (D) care for

4. What can be inferred from the passage about the practice of animal parents feeding their young?

- (A) It is unknown among fish. (B) It is unrelated to the size of the young.
- (C) It is dangerous for the parents. (D) It is most common among mammals.

5. The word "**provisioning**" in **line 11** is closest in meaning to

- (A) supplying (B) preparing (C) building (D) expanding

6. According to the passage, how do some insects make sure their young have food?

- (A) By storing food near their young.
- (B) By locating their nests or cells near spiders and caterpillars.
- (C) By searching for food some distance from their nest.
- (D) By gathering food from a nearby water source.

7. The word "**edge**" in **line 15** is closest in meaning to

- (A) opportunity (B) advantage (C) purpose (D) rest

8. The word "**it**" in **line 18** refers to

- (A) feeding (B) moment (C) young animal (D) size

9. According to the passage, animal young are most defenseless when

- (A) their parents are away searching for food
 - (B) their parents have many young to feed
 - (C) they are only a few days old
 - (D) they first become independent
10. The word "**shielded**" in **line 20** is closest in meaning to
- (A) raised (B) protected (C) hatched (D) value

I) write the title of the first passage _____

II) Summarize the main idea of the above passage briefly using your own words.

Passage two(Practice 1-10)

Long before they can actually speak, babies pay special attention to the speech they hear around them. Within the first month of their lives, babies' responses to the sound of the human voice will be different from their responses to other sorts of auditory stimuli. Line They will stop crying when they hear a person talking, but not if they hear a **bell** or the sound of a **rattle**. At first, the sounds that an infant notices might be only those words that receive the heaviest emphasis and that often occur at the ends of utterances. By the time they are six or seven weeks old, babies can detect the difference between syllables pronounced with rising and falling inflections. Very soon, these differences in adult stress and intonation can influence babies' emotional states and behavior. Long before they develop actual language comprehension, babies can sense when an adult is playful or angry, attempting to initiate or terminate new behavior, and so on, merely on the basis of cues such as the rate, volume, and melody of adult speech.

Adults make it as easy as they can for babies to pick up a language by exaggerating such cues. One researcher observed babies and their mothers in six **diverse** cultures and found that, in all six languages, the mothers used simplified syntax, short utterances and nonsense sounds, and transformed certain sounds into baby talk. Other investigators have **noted** that

when mothers talk to babies who are only a few months old, **they** exaggerate the pitch, loudness, and intensity of their words. They also exaggerate their facial expressions, hold vowels longer, and emphasize certain words.

More significant for language development than their response to general intonation is observation that tiny babies can make relatively fine distinctions between speech sounds. Other words, babies enter the world with the ability to make precisely those perceptual discriminations that are necessary if they are to acquire aural language.

Babies obviously derive pleasure from sound input, too: even as young as nine months they will listen to songs or stories, although the words themselves are beyond their understanding. For babies, language is a sensory-motor delight rather than the route to prosaic meaning that it often is for adults.

1. What does the passage **mainly** discuss?
 - (A) How babies differentiate between the sound of the human voice and other sounds
 - (B) The differences between a baby's and an adult's ability to comprehend language
 - (C) How babies perceive and respond to the human voice in their earliest stages of language development
 - (D) The response of babies to sounds other than the human voice
2. Why does the author mention a **bell** and a **rattle** in **lines 4-5**?
 - (A) To contrast the reactions of babies to human and nonhuman sounds
 - (B) To give examples of sounds that will cause a baby to cry
 - (C) To explain how babies distinguish between different nonhuman sounds
 - (D) To give examples of typical toys that babies do not like
3. The word "**diverse**" in **line 13** is closest in meaning to
 - (A) surrounding
 - (B) divided
 - (C) different
 - (D) stimulating
4. The word "**noted**" in **line 15** is closest in meaning to
 - (A) theorized
 - (B) requested
 - (C) disagreed
 - (D) observed
5. The word "**They**" in **line 16** refers to
 - (A) mothers
 - (B) investigators
 - (C) babies
 - (D) words

6. The passage mentions all of the following as ways adults modify their speech when talking to babies **EXCEPT**

- (A) giving all words equal emphasis (B) speaking with shorter sentences
(C) speaking more loudly than normal (D) using meaningless sounds

7. The word "**emphasize**" in line 19 is closest in meaning to

- (A) stress (B) repeat (C) explain (D) leave out

8. Which of the following can be inferred about the findings described in **paragraph 2**?

- (A) Babies who are exposed to more than one language can speak earlier than babies exposed to a single language.
(B) Mothers from different cultures speak to their babies in similar ways.
(C) Babies ignore facial expressions in comprehending aural language.
(D) The mothers observed by the researchers were consciously teaching their babies to speak.

9. What point does the author make to illustrate that babies are born with the ability to acquire language?

- (A) Babies begin to understand words in songs.
(B) Babies exaggerate their own sounds and expressions.
(C) Babies are more sensitive to sounds than are adults.
(D) Babies notice even minor differences between speech sounds.

10. According to the author, why do babies listen to songs and stories, even though they cannot understand them?

- (A) They understand the rhythm.
(B) They enjoy the sound.
(C) They can remember them easily.
(D) They focus on the meaning of their parents' words

I) Write the title of the above passage _____

II) Summarize the main idea of the passage briefly using your own words.

Source to the TOFEL test: <https://iran-oxford.com/wp-content/uploads/2020/02/TOEFL-PBT-Practice-test.pdf>

Appendix B: Reading strategies use questionnaire (English version) (Adapted from Oxford, (1990))

Addis Ababa University

College of Humanities, Language Studies, Journalism and Communication

Dear students,

This questionnaire is designed to collect data for research purposes. It has no any sort of evaluation intention and you are not evaluated based on the response you give to the questions. The success of the study depends on the will and genuine responses you give to the questions. Thus, you are asked to respond to the questions frankly and honestly. Remember: the information you provide will be kept confidential. Thank you in advance!

Instruction: Please read the statement below in the following chart very carefully. Then, put a tick (✓) on one of the numbers (1, 2, 3, 4, or 5) that tells the degree of opinion on the strategies you use to learn English reading skills. Note that there is no right or wrong response to any of the items on this questionnaire. The numbers in the box indicate the following:

1 = Never

2 = Rarely

3 = Sometimes

4 = Usually

5 = Always

	Reading strategies	1	2	3	4	5
No	Memory Strategies					
1	I think of relationships between what I already know and new things that I read in read English.					

2	In my reading, I make mental pictures or visualize information to remember what I read.					
3	I try to remember the new English words or phrases by remembering their location on the page, on the board, or on a street sign where I read it.					
4	I use new English words in a sentence so I can remember them.					
	Cognitive Strategies					
5	I read English words, phrases, or sentences several times for complete understanding.					
6	I make a prediction about the passage before reading using information such as title, heading and pictures.					
7	I skim an English passage (read over the passage quickly) to get the general idea					
8	I scan an English text to get specific ideas.					
9	I underline or circle key information in the text to help me understand what I read.					
10	I take short notes while reading to help me understand what I read.					
11	I make summaries of information that I read in English.					
	Compensation Strategies					
12	I use linguistic clues (such as suffixes, and prefixes) to help me better understand what I am reading.					
13	To understand unfamiliar English words, I make guesses or predictions using clues such as titles and pictures.					
14	I read English text without looking up every word in a dictionary.					
	Metacognitive Strategies					
15	I notice my mistakes in reading English and use that information to help me do better.					
16	I plan my schedule so I will have enough time to read English texts.					
17	I check my understanding when I come across new information					
18	I have clear goals for improving my English reading skill.					
19	I try to check my progress when I read English text.					
	Affective strategies					
20	I take deep breath to lower my anxiety even if I fail to understand a text.					
21	I notice if I am stressed or nervous when I am reading English.					
22	I talk to someone else about how I feel when I am reading in English.					
23	I try to reduce my anxiety when I compete to do some difficult reading tasks.					
24	I give a reward or treat when I do well in reading English.					
	Social Strategies					

25	If I do not understand a text, I ask my classmates or teachers for clarification.						
26	I work with other students to improve my reading skill.						
27	I try to learn about the culture of English readers and speakers.						

Open-ended question

1. What other strategies or techniques do you use to solve the problems or difficulties you face during English reading?

Appendix C: Amharic version of the questionnaire

በናሙናው ጥናት የንባብ ብልሃቶች (Reading Strategies) አጠቃቀም መለኪያ የጽሑፍ መጠይቅ

በአስራ አንደኛ ክፍል ተማሪዎች የሚሞላ:-

ማሳሰቢያ :- ውድ ተማሪዎች የዚህ መጠይቅ ዋና አላማ «የንባብ መማርያ ብልሃቶችን (reading strategies) በእግሊዝኛ ትምህርት ክፍል ጊዜ ተማሪዎችን በግልጽ ማሰልጠን የተማሪዎች የንባብ ችሎታና የብልሃት አጠቃቀም ለማዳበር ያለው አስተዋጽኦ» በሚል ርዕስ ለሚካሄድ ጥናት መረጃ ለማግኘት ነው። በዚህ መጠይቅ አማካይነት የተሰበሰበው መረጃ ለሌላ አላማ አይውልም። በመሆኑም መጠይቁን በምትሞሉበት ጊዜ ማንንም ሰው ሳይሆን በመመለስና ለምትሰጡት መልስ ታማኝ በመሆን ለጥናቱ ውጤት አስተማማኝነት የበኩላችሁን እንድታበረክቱ በአክብሮት እጠይቃለሁ። ውድ የትምህርት ጊዜያችሁን መሥዋዕት በማድረግ ላደረጋችሁት ቀና ትብብር አመሰግናለሁ።

ክፍል አንድ :- የግል ሁኔታ

ይታ _____ ዕድሜ _____ የት/ቤት ስም _____

ክፍል ሁለት:- የጽሑፍ መጠይቅ መመሪያ

ከዚህ በታች የእንግሊዝኛ ጽሁፍ አንብቦ መረዳትን ለማጎልበት የሚያግዙ ብልሃቶችን (reading strategies) የሚገልፁ ጥያቄዎች ቀርበዋል። እያንዳንዱን ዐረፋፍ ነገር በጥሞና አንብቦ (ሀ) የተጠቀሰውን ብልሃት አጠቃቀምሽን(ህን) አስመልክቶ ከቀረቡት ሁልጊዜ ፣ ኡብዛኛውን ጊዜ ፣ አልፎ አልፎ ፣ በመጠኑ እና በጭራሽ ከሚሉት አማራጭ መልሶች መካከል አንዱን ብቻ መርጠህ(ሽ) ከምርጫው ፊት ለፊት በሚገኘው ሳጥን ውስጥ የ “✓” ምልክት

በማድረግ መልሽ(ስ):: ለእያንዳንዱ ሐሳብ ትክክል ወይም ስህተት መልስ የለውም:: እያንዳንዳችሁ በታማኝነት መርጣችሁ የምትመልሱት ትክክለኛ መልስ ለጥናቱ አስፈላጊ ቢሆንም ፈተና ስላልሆነ እውነተኛ አጠቃቀምሽን(ህን) የሚገልፀውን መርጠሽ(ህ) መልሽ(ስ)::

የመመዘኛዎች መግለጫ

1. በጭራሽ አልጠቀምም
2. በመጠኑ እጠቀማለሁ
3. አልፎ አልፎ እጠቀማለሁ
4. አብዛኛውን ጊዜ እጠቀማለሁ
5. ሁልጊዜ እጠቀማለሁ

	የንባብ ብልሃቶች(reading strategies)	1	2	3	4	5
1	የእንግሊዘኛ ጽሁፍ ሳኑብ የንባቡን ጽንሰ (ዋና)ሃሳብ ለማስታወስ የማነበውን ጽሁፍ ከቀደመ እውቀቴ ጋር ያለው ተዛማጅነት እገምታለሁ ወይም በፊት ከማውቀው ነገር ጋር አገናኛለሁ::					
2	እንግሊዘኛ ጽሁፍ በማነብበት ጊዜ ለማስታወስ ይረዳኝ ዘንድ አእምሮአዊ ሰእል ወይም እይታን እጠቀማለሁ::					
3	አዳዲስ የእንግሊዘኛ ቃላትን መገኛ ቦታዎች (ለምሳሌ ገጽ:ሰሌዳ እንዲሁም መንገድ አካባቢ) በማስታወስ ቃላትን ለማስታወስ/ለመማር አሞክራለሁ::					
4	አዳዲስ የእንግሊዘኛ ቃላትን ፍቺ ለማስታወስ ይረዳኝ ዘንድ ቃላቱን አረፍተ ነገር ውስጥ በማስገባት እጠቀማለሁ::					
5	የማነበውን እንግሊዘኛ ጽሁፍ ፍቺ በአግባቡ ለመረዳት እንደያስችለኝ ደጋግሜ አነባለሁ::					
6	አንድን የእንግሊዘኛ ጽሁፍ ከማንበቤ በፊት ርእሱን ወይም ስእሉን በማየት የምንባቡን ሃሳብ እገምታለሁ ወይም የቅድመ ንባብ ግመታ አድርጋለሁ::					
7	የማነበውን የእንግሊዘኛ ጽሁፍ ጠቅላላ ወይም ዋና ሃሳብ ለመረዳት በፍጠነት ገረፍ ገረፍ አደርጋለሁ::					
8	በየእንግሊዘኛ ጽሁፍ ውስጥ ያሉትን ውስን መርጃዎች (እንደ ቁጥር እና ስም የመሳሰሉትን) ለማግኘት በዳሰሳ አነባለሁ::					
9	ያነበብኩትን የእንግሊዘኛ ጽሁፍ ለመረዳት እንዲያግዘኝ በጽሁፉ ውስጥ ያሉትን ቁልፍ ቁልፍ ቃላት በከለር አሰምራለሁ ወይም አከባለሁ::					
10	የእንግሊዘኛ ጽሁፍ በማነብበት ጊዜ ሃሳቡን ለመረዳት እንዲረዳኝ አጭር ማስታወሻ እይዛለሁ::					
11	ያነበብኩትን የእንግሊዘኛ ምንባብ አጠር አድርጌ እገልጻለሁ ወይም ማጠቃለያ እጽፋለሁ::					
12	የማነበውን ጽሁፍ በተሻለ ሁኔታ ለመረዳት እንዲረዳኝ አጠቃላይ የቋንቋ እውቀቴን (ለምሳሌ:በምንባቡ ውስጥ ያሉ ቅድመ እና ድህረ ቅጥያዎችን)እጠቀማለሁ::					
13	የማነበውን የእንግሊዘኛ ጽሁፍ በተሻለ ሁኔታ ለመረዳት እንዲረዳኝ አውዳዊ ፍቶዎችን(ምሳሌ የምንባቡ ርዕሶች እና ስዕሎችን) እጠቀማለሁ::					
14	የእያንዳንዱን የቃል ትርጉም ለማወቅ መዝገብ ቃላትን ሳልጠቀም የእንግሊዘኛ ስጽሁፍን ለማንበብ እሞክራለሁ::					
15	እንግሊዘኛ ሳኑብ የጽሁፉን ሃሳብ በትክክል ባልረዳውም በትምህርት ሂደት መሳሳት ያለ በመሆኑ ያለፍርሃት መሞከራን እቀጥላለሁ::					
16	እንግሊዘኛ ንባብ ሳኑብ በቂ ጊዜ መድቤ ጊዜዬን በአግባቡ እጠቀማለሁ ::					
17	በእንግሊዘኛ ንባብ ውስጥ አዲስ ሃሳብ ሲገጥመኝ በአግባቡ መረዳቴን አራሴን በመጠየቅ አፈትሻለሁ::					
18	የእንግሊዘኛ ንባብ ክህሎቴን ለማዳበር ግልጽ የሆነ ግብ ወይም አላማ አለኝ::					

19	የእንግሊዝኛ ንባብ ክህሎት ከጊዜ ወደ ጊዜ መሻሻሉን ለማረጋገጥ ራሴ እንመግማለሁ።					
20	የእንግሊዝኛ ጽሁፍ ሳኑብ በልረዳውም እንኩዋ የመጨናነቅ (የመረበሽ) ስሜትን ለመቀነስ በቂ ትንፋሽ እውስዳለሁ ።					
21	የእንግሊዝኛ ጽሁፍ ሳኑብ መጨናነቄን ወይም መረበሼን እራሴ እንደገባለሁ።					
22	እንግሊዝኛ ሳኑብ የተሰማኝን ስሜት ለሌሎች አወራለሁ ።					
23	ከቤድ ያሉ የእንግሊዝኛ የንባብ መልመጃዎችን ለመስራት ስጥር ጭንቀቴን ለመቀነስ እሞክራለሁ።					
24	እንግሊዝኛን በጥሩ ሁኔታ ያነበብኩ ከመሰለኝ እራሴን አበረታታለሁ (እሸልማለሁ)።					
25	ሳኑብ ያልገባኝን የእንግሊዝኛ ጽሁፍ መምህራን ፣ጓደኞቼን ወይም ሌሎች ሰዎችን ጠይቄ እረዳለሁ።					
26	የእንግሊዝኛ ንባብ ችሎታዬን ለማሻሻል ከጓደኞቼ ጋር በመተባበር በጥንድ ወይም በቡድን ንባብን እለማመዳለሁ።					
27	የንባብ ችሎታዬን ለማዳበር የንግሊዝኛ ቋንቋ አንባቢዎችን እና ተናጋሪዎችን ባህል ለመማር ጥረት አደርጋለሁ።					

ተጨማሪ ጥያቄ

1. ከላይ በሰንጠረዥ ከተዘረዘሩት የንባብ መማሪያ ብልሃቶች ወይም ዘዴዎች ውጭ ሌሎች የምታውቋቸው ብልሃቶች ካሉ ዘርዝሩ።

Appendix D: Interview questions (English & Amharic versions)

1. How do you define reading skill? (Brainstorming question)
2. What do you think about the benefit of the reading strategy instruction that was conducted during the last semester?
3. Is the new teaching method (strategy training) different from the conventional teaching reading methods?
4. Do you think using reading strategies that were practiced during the training are important to improve your reading comprehension?, If yes, can you list some important RSs ?

Amharic version

1. እስኪለመጃምር ያክል የንባብ ክህሎት ላንተ/ቺ ምንድነው?
2. እንደምታውቀው/ቂው ባለፈው ጊዜ የእንግሊዝኛ ንባብ ችሎታን ለማሻሻል የንባብ ስትራቴጂዎችን (reading strategies) መጠቀም በሚል ዙርያ ስልጠና ተሰጥቷል።ስልጠናውን እንደት አየኸው/ሽው?

3. የተሰጠው ስልጠና ከተለመደው የማስተማር ዘዴ ይለያል ብለህ/ሽ ታስባለህ/ሽ?
4. መልካም፡ በተማርቻሁት መሰረት ስትራቴጂዎችን በአንግሊዝኛ ንባብ ጊዜ መጠቀም የንባብ ችሎታን ያዳብራል ብለህ/ሽ ታስባለህ/ሽ? መልስህ/ሽ አዎ ከሆነ የተወሰኑ ጠቃሚ ስትራቴጂዎችን ብትጠቅሱልኝ/ሽልኝ?

Appendix E: Classroom Observation for Experimental Group

The teacher:	Ob.1	Ob.2	Ob.3	Ob.4	Ob.5	Ob.6	Ob.7	Ob.8	Ob.9	Ob.10	Yes	No	No	% of occurrences (Yes)
	1 introduces the daily lesson topic/title													
2 activates students' background knowledge of the topic and strategy use														
3 presents and explains the reading strategies														
4 explicitly models the strategies instruction using sample reading activities														
5 motivates students to use reading strategies														
6 facilitates pair and group works														
7 guides the students to apply the RSs in activities(e.g. supporting students while summarizing a text)														
8 gives feedback to students within the process														
9 encourage self-assessment through peer working														
10 promotes the use of reading strategies in different texts or topics														

Comments

Observational checklist adapted from (*Barrios Núñez, 2018; Chamot & Robbins, 2005; Chanyalew & Abiy, 2015*).

Appendix F: Instructor Check sheet

Instructor: _____ Day: _____ Week: _____ Month: _____

Dear teacher, this check sheet is for you to use as a guide when implementing the explicit strategy instruction in the EG’s class. So, please put a checkmark in the box for each day of the week to indicate that you implemented each of the elements of strategy training listed in the table below. If you were unable to implement any one of these elements, please give reasons or comments in the space provided below the table. Thank you!

	Elements of Strategy-Based Instruction	Day 1	Day2
1	I write the topic of the daily lesson on the chalkboard or poster and explain its objective		
2	I provide students with certain brainstorming activities to activate their background knowledge and help them guess the meaning of difficult words during pre-reading		
3	I explicitly models the strategies during the pre-reading phase		
4	I introduce, present, model, and practice two or three reading strategies during each reading class.		
5	I give learners adequate time to practice the reading strategies previously presented & modeled by the teacher.		
6	I give learners enough time to summarize a short reading text and report their summaries orally at the post-reading stage, and evaluate their progress		
7	I encourage learners to ask or answer questions and to participate in group discussions when necessary		
8	I guide or organize learners to do reading tasks in pairs or groups before and after each daily lesson		
9	I give enough time for learners to compare and evaluate their understandings of the newly learnt strategies and reading text.		
10	I promote students to use reading strategies in different texts outside the class		

Reasons:

Comments: _____

Appendix G: Training Manual

Teaching manual for grade eleven students in Tesfa Birhan General Secondary School

Introduction

This manual is prepared for EFL teachers who participated in the study to teach grade eleven students selected for the pilot study. The aim is to help the selected teacher to have an awareness of the implementation of reading strategies while teaching reading skills by integrating them with reading activities. The purpose of the research is to investigate the effects of explicit strategy instruction on the students' reading comprehension achievement and reading strategy use; therefore, this training manual aims to give information to the teacher about what reading strategies are, why they are used, when and how they can be used effectively and successfully in EFL classrooms.

Part One: The Concept and Definition of Reading Strategies

- **The objective of this part is to help the trainee teacher to have awareness about reading strategies**

Learning strategies are **specific** actions taken by the learner to make learning easier, faster, more enjoyable, more self-directed, more effective, and more transferable to new situations. In the context of reading, reading strategies indicate that readers conceive a task, what textual cues they attend to, how they make sense of what they read, and what they do when they do not understand. Reading strategies are deliberate, conscious techniques that readers employ to enhance their comprehension or retention of textual information; therefore, reading strategies use play a prominent role in students' reading achievement. In other words, reading strategies are deliberate, conscious techniques that readers employ to enhance their comprehension or retention of textual information. Specifically, they have the following characteristics; deliberate, conscious plans, techniques and skills; aiming to enhance reading comprehension and overcome comprehension failures; and behavioral and mental. They are of interest for what they reveal about the way readers manage their interaction with the written text and how these strategies are related to text comprehension.

Reading strategies have been classified by many scholars and researchers in different ways. However, researchers frequently use Oxford's (1990) reading strategy taxonomy which is a very comprehensive one. In this study, Oxford's classification is adapted to train learners to use the six selected direct and indirect learning strategies, i.e., memory, cognitive, and compensation, metacognitive, affective and social strategies. The assumption is that when learners are trained to use direct and indirect learning strategies, their reading ability is enhanced.

➤ **Reading Strategy Taxonomy**

Oxford has developed comprehensive learning strategy classifications. She developed a system of classification organized around a division of two strategy groups, direct and indirect. Among these, she identifies six types of general learning strategies. Direct Reading Strategies are those strategies that directly involve learning the target language including memory, cognitive, and compensation. Indirect strategies are those strategies limited to a supportive role without being directly related to the interaction of the language itself. Strategies categorized within this group include metacognitive, affective, and social. These six categories are used in this study in order to identify the effect of reading strategy instruction on students reading comprehension and their strategy use. Each main strategy is discussed below.

Memory Strategies: help students to store and retrieve new information. Memory strategies are specific devices used by learners to make mental linkages that will allow new information, most often vocabulary, to enter and remain in long term memory. Strategies such as semantic mapping, grouping or using imagery have highly specific functions

Cognitive Strategies: Cognitive strategies (such as predicting, repeating, getting the idea quickly, and taking note) help students process and use the language for learning or for accomplishing a task involving the language

Compensatory Strategies: Compensatory Strategies (example, guessing intelligently; using linguistic and other clues) help the learner make up for missing knowledge for all skills

Meta-cognitive Strategies: meta-cognitive means beyond, beside, or with the cognitive. Hence, meta-cognitive strategies (such as self-monitoring and self-evaluating) are actions which go beyond purely cognitive devices, and which provide a way for learners to coordinate their own learning process.

Affective Strategies: Affective strategies (such as lowering oneself anxiety, self reward) assist students in managing their emotions, motivation, and attitude associated with learning.

Social Strategies: Social strategies refer to how learners interact with other people in the context of learning a language and related culture. They include, among others, asking someone to speak slowly, practicing with others and showing interest in learning about the culture of the English speaking countries. In general lists of different reading strategies are explained below.

➤ **Reading strategies selected for the training**

Semantic mapping- is a diagram in which the key concept is placed in the middle of the map while the related words are linked with and arranged around the central keyword or idea through arrows and lines. The subject being discussed is written on the board, a chart and an oval is drawn around it, and the students think of words to describe the subject. As they share them, the teacher writes them on charts in boxes and connects them to the oval with arrows. This strategy can be used before, during, and after reading. It is used to activate learners' prior knowledge and enhances vocabulary learning.

Prediction/guessing - Students can understand a given text by systematically guessing without necessarily comprehending all the details. For this purpose, readers can use linguistic clues (e.g. prefixes & suffixes) and other clues (as titles, headings, and pictures). Students can predict the text before, while, or after reading by analyzing it. Learners' background knowledge (such as knowledge of the target language culture and topic) helps readers to predict what they read. Compensation strategies (using linguistic clues such as previous knowledge, prefixes and suffixes, and other clues such as context or situation, and text structure) are vital to reduce inadequacies of grammar and vocabulary knowledge. For example, prior knowledge of the target or other language may give linguistic clues to the

meaning of what he/she reads; using prefixes and suffixes are also important clues to guessing meanings. Text titles, headings, pictures, graphs, text structure and cohesive devices are all other clues that can aid in getting meanings (Oxford, 1990).

Placing new words into context: involves putting the new words into meaningful context. For example, creating another story using the new words in the passage.

Creating images: creating a mental image of what we have read is a very important strategy. It is the way of remembering a written item by picturing a place where it is located

Practicing/repeating: is said to be an essential strategy in all languages including. Reading a passage more than once is an essential strategy for a complete understanding

Getting ideas quickly (Skimming & scanning)-Skimming & scanning are quick readings. The former involves searching for the main idea or reading material to get the gist of it, and the latter is reading for specific information. Skimming the text such as the introduction, getting the topic sentences, and the first and last sentences of a paragraph as well as looking down the passage quickly are important techniques. We use such strategies to identify the main idea of the text and for particular ideas such as names, dates, facts, or figures. Students can apply these strategies during all reading stages. Note-taking: The reader writes down the main ideas, important aspects, keywords, a summary of the concepts, or what s/he needs to remember in the form of either text or graphics (e.g. outline chart, list, diagram, semantic map, drawing). Key points can be written in students' language or a mixture of the target and learners' language. Teaching students to use techniques such as using the notebook, semantic mapping, and T-formation to take notes. In different reading aspects such as reading for the main idea

Summarization -Making the condensed, short version of the original passage using techniques like pictures or giving titles to what has been read; selecting the relevant information and rewriting is important. It is important to understand the main idea of the text & to save it in long-term memory

Note-taking- is about jotting down the main ideas, important or keywords, a summary of the concepts, and what s/he needs to remember in the form of either text or graphics (e.g. outline chart, list, diagram, semantic map, drawing), and it can be written in students own

language or mixture of the two. This strategy can be used in pre-, while or post-reading stages

Highlighting- is a way of emphasizing major points through different techniques during reading. We can use it through coloring, underlining, capital letters, big writing, bold writing, stars, boxes, circles & so on. It is important to get different information such as vocabulary & gist of the passage.

Guessing/predicting –Students can understand a given text by systematically guessing without necessarily comprehending all the details. Readers can use linguistic clues (e.g. prefixes & suffixes) and other clues (as titles, headings, and pictures) while they are predicting. Students can predict the text before, while, or after reading by analyzing it. Learners' background knowledge (such as knowledge of the target language culture and topic) helps readers to predict or guess what they read. Guessing is also an important strategy for discovering the meanings of words and identifying the main idea of a passage

Setting goals and objectives –is about setting long-term and short-term goals. For example, a student could plan to read and finish a particular text within a week or a month.

Self-monitoring- Learners take responsibility for their learning, they notice and learn from errors skim or scan guess what will come next, and correct any misinterpretation as they move ahead. Readers monitor themselves if they can understand the text

Lowering anxiety- Learners need to reduce anxiety while reading using techniques: relaxation, meditation deep breaths, laughing, and music. This strategy is helpful to be confident and enhance reading ability

Self-encouragement- It is the process of taking risks; self-rewarding and making positive statements about oneself before or during reading. Students may encourage themselves by making positive statements (Eg. Everybody makes mistakes; I can learn from mine! I am reading faster than I was a month ago). It enhances one reading ability.

Cooperation- is working with others. Learners work together with peers to solve a problem and activities with a common goal. It can be done using small groups in Jigsaw

reading activities to encourage cooperation with peers/ learners to discuss in groups. This strategy facilitates reading comprehension and develops learners' ability.

Appendix H: Sample Lesson plan for the experimental group

Date:

Unit: Seven: Weather and climate change

Subtopic Topic: The challenge of climate change

Reading strategies: Systematic guessing/prediction and skimming

Time.....

Materials: Students' Textbook, handouts, and Worksheets.

Instructional Objectives: Content, strategy, and language objectives

1. Content objectives

- Students will be able to read and understand a passage about '**The challenge of climate change**' in collaboration with their classmates
- Learn some words about climate change

2. Strategy objectives

- Students use the title and the pictures of the textbook to predict what they will read
- Students will be able to enhance their vocabulary knowledge using context and their background knowledge on the diagram

3. Language objectives

- Share information with classmates to foster collaborative learning before, while, and after reading different types of texts in English.
- Students will be able to participate in pair, group, and whole-class discussion

Teaching materials: textbook and handout

Teacher's and student's role in each reading stages

In the pre-reading stage:

Teacher: begins the lesson by using a warm-up activity by telling students to open their textbook and look at “**The challenge of climate change**” on page, 168, and ask “What do you think the passage is about?, ‘What do you see?’ in which learners are asked to see the title and the pictures in the textbook to predict about the idea of the passage based on their prior knowledge.

Students: work individually, then in small group

Teacher: ‘What strategies/techniques have been used to read and comprehend a given text?’, and she encourages and engages the students to participate in the process of group discussion. Then she writes their answers on the board and explains them to the class later. The teacher tries to find out how much students know about RSs during reading and if they can use them.

Teacher: tells learners that though there are a plethora of reading strategies, for today they are going to learn about prediction and semantic mapping along with the role of using background knowledge

In the while-reading stage:

Teacher: presents and explicitly teaches what systematic guessing /prediction and semantic mapping are in learning reading, how, why and when to use them

Teacher: explains that students can understand a given text through systematically guessing without necessarily comprehending all the details. Linguistic clues (e.g prefixes & suffixes) and other clues (such as titles, headings, and pictures) can be used while guessing the idea of a passage

Teacher: draws the diagram to show semantic mapping to activate students’ background knowledge, and models how to connect background knowledge using the passage from students’ text. She draws a large oval on the blackboard and writes the

topic inside and writes words related to the topic followed by connecting with the keywords in the oval using arrows and links.

Students: are given time to practice the strategies that they learn in the next section of the passage

Students: Work individually, in pairs, or groups

Teacher: walks around the class to observe learners' performance and offer further explanation when needed, guides and provides feedback, goes over the answers in class & gives feedback when needed

In the post-reading stage:

Teacher: asks learners to evaluate their learning and strategy use.

For example, Do you think it was more interesting to deal with the text in this way instead of simply reading the text?

Learners: Discuss how the strategy (using background knowledge) helped them achieve comprehension of the text and reflect on what they did well, what their problems were and what they could do differently next time to solve the problems.

Teacher: tells students to answer questions in the textbook & encourages them to use the strategies of predicting & semantic mapping and use their prior knowledge. Then she encourages **learners** to use the strategies they learned combined with other strategies when they read on their own. For example, the teacher asks: Do you think you could use the same strategy in a real-life/ situation to other reading activities (e.g. reading fiction, magazine, or news)?

Sources: (*Grabe, 2009; Grabe & Stoller, 2019; Oxford, 1990, and students' textbook*)

Appendix I: Instrument validation form

Dear teacher,

The current researcher is conducting research entitled **The Effect of Explicit Strategy Instruction on Grade Eleven Students' reading comprehension and strategy use** to obtain PhD degree in English Language Teaching (ELT). One of the requirements is to conduct a pre-posttest reading comprehension test and questionnaire. So you are kindly requested to look at the attached test and questionnaire and fill out the following form whether the items are suitable or unsuitable. Your response will be highly appreciated and confidential.

1) Reading comprehension test validation

	The Items	Yes	No	Neutral
1	The test contains appropriate content.			
2	The test items suit eleventh graders' level			
3	The instructions are clear.			
4	The test includes the reading comprehension skills for the 11th-grade			
5	The layout is acceptable.			
6	The questions are gradually arranged.			
7	The test contains appropriate time.			

2) Questionnaire validation

	The Items	Yes	No	Neutral
1	The instructions are clear.			
2	The time is appropriate.			
3	The language used is appropriate.			
4	The layout is acceptable.			
5	The statements are appropriate for the student's level.			

Other

suggestions.....
.....
.....

Adapted from: *Kebede Bezabih, 2019(Ph.D)*

Appendix J: Raw data of the reading comprehension test
Reading test scores for the pilot study

No	Reading test scores of the control group		No	Reading test scores of the experimental group	
	Pretest	Posttest		Pretest	Posttest
1	17.00	17.00	1	14.00	14.00
2	8.00	9.00	2	17.00	17.00
3	13.00	12.00	3	13.00	13.00
4	14.00	14.00	4	14.00	15.00
5	15.00	15.00	5	12.00	12.00
6	11.00	11.00	6	19.00	18.00
7	15.00	15.00	7	22.00	24.00
8	9.00	9.00	8	15.00	14.00
9	11.00	10.00	9	11.00	12.00
10	16.00	16.00	10	7.00	9.00
11	9.00	9.00	11	10.00	11.00
12	20.00	16.00	12	6.00	10.00
13	10.00	9.00	13	19.00	20.00
14	14.00	12.00	14	8.00	11.00
15	13.00	13.00	15	5.00	10.00
16	12.00	15.00	16	9.00	12.00
17	12.00	12.00	17	16.00	17.00
18	13.00	13.00	18	13.00	15.00
19	10.00	11.00	19	7.00	12.00
20	14.00	10.00	20	11.00	12.00
21	19.00	11.00	21	11.00	11.00
22	10.00	9.00	22	15.00	17.00
23	11.00	12.00	23	15.00	16.00
24	12.00	13.00	24	11.00	16.00
25	15.00	14.00	25	11.00	12.00
26	7.00	8.00	26	15.00	18.00
27	10.00	10.00	27	9.00	10.00
28	11.00	11.00	28	10.00	13.00
29	9.00	9.00	29	11.00	12.00
30	12.00	12.00	30	14.00	18.00
31	17.00	17.00	31	12.00	12.00
32	14.00	14.00	32	15.00	16.00
33	11.00	11.00	33	9.00	11.00
34	10.00	13.00	34	15.00	18.00
35	12.00	12.00	35	10.00	13.00
36	9.00	8.00	36	9.00	11.00
37	9.00	10.00	37	7.00	9.00
38	18.00	19.00	38	8.00	10.00
39	10.00	11.00	39	15.00	16.00
40	14.00	13.00	40	12.00	13.00
			41	9.00	10.00
			42	8.00	10.00

Reading test scores for the main study

No	Reading test scores of the CG		No	Reading test scores of the EG	
	Pretest	posttest		Pretest	Posttest
1	17	17	1	9	10
2	12	12	2	16	17
3	10	11	3	19	21
4	18	18	4	12	15
5	15	15	5	10	13
6	13	14	6	14	16
7	9	10	7	16	19
8	19	19	8	11	15
9	20	20	9	17	21
10	13	13	10	9	14
11	12	13	11	10	13
12	15	16	12	15	16
13	16	15	13	8	13
14	13	14	14	13	16
15	14	15	15	12	12
16	10	12	16	13	14
17	12	13	17	11	15
18	14	15	18	15	17
19	11	12	19	18	20
20	12	13	20	13	16
21	10	10	21	20	22
22	14	13	22	18	24
23	9	10	23	10	14
24	13	13	24	9	25
25	12	13	25	11	13
26	15	15	26	14	17
27	14	15	27	11	14
28	11	12	28	18	19
29	18	10	29	15	16
30	17	17	30	12	22
31	14	14	31	16	18
32	13	13	32	14	16
33	15	16	33	15	17
34	10	11	34	15	21
35	16	16	35	14	16
36	10	12	36	17	22
37	12	13	37	17	20
38	11	12	38	16	17
39	12	13	39	10	18
40	13	14	40	13	15
41	10	11	41	15	18
42	14	14	42	12	19
43	13	12	43	10	18
			44	16	20

Appendix K: Amharic Interview verbatim

ከ ሳራ ጋር የተደረገ ቃለመጠይቅ

ጥያቄ: እስቲ ለመጀመር ያክል የንባብ ክህሎት ላንቺ ምንድነው ወይም እንዴት ትገልጭዋለሽ?

መልስ: ለእኔ ማንበብ ማለት የሆኑ ወርዶችን ወይም የሆኑ ቃላቶችን ከሆነ ከተዘጋጀ ማቴርያል ላይ ያንን አንብቦን አንደርስታንድ/understand/ የምናደርገው ከሆነ የንባብ ስኬላችን እየዳበረ እንደሚሄድ ነው የምገልጸው።

በጣም ጥሩ : እሺ ጥሩ እንደምታውቁው ባለፈው ጊዜ የእንግሊዝኛ የንባብ ችሎታን ለማሻሻል የንባብ ስትራቴጂዎችን (reading strategies) መጠቀም ላይ አላማ ያደረገ ስልጠና ተሰጥቶ ነበርስልጠናውን እንዴት አየሽው?

መልስ:እኔ በጣም ደስብሎኛል ምክቱም በፊት የምናውቃቸው የሪዲንግ ስኬሎቻችንን የምናዳብርባቸው ለምሳሌ ስኬሚንግና ስካኒንግ(skimming እና scanning) ከኢለመንታሪ ጀምሮ ስንማራቸው ነው ያደግንው። እና አሁን ግን ተጨማሪ ዘዴዎች መኖራቸውን ሳውቅ እና በዛም ደግሞ ለመጠቀም የላኝን ጉጉት ስለጨመረልኝ ስልጠናው በጣም ጠቅሞኛል።

ጠያቂ: የጠሰጠው ስልጠና ከተለመደው የማስተማርያ ዘዴ የተለየ ነው ብለሽ ታስብዋለሽ?

መልስ:አዎ በጣም ይለያል ። በፊት የምንማርበት ዘዴ ያው እንዳልኩሽ ስኬሚንግ እና ስካኒንግ ነው በብዛት የተለመደው። አሁን ግን የተለያዩ ዘዴዎች አሁን ለምሳሌ ሴማንቲክማፒንግ (semantic mapping) ብንወስድ እኔ በግሌ በጣም ነው እንድጠቀምበት ያነሳሳኝ ከዚህ በፊት ተጠጥቅሜበት ቢሆን የትበደረስኩ ኖሮ ብዬ እንዳሰብ ያደረገኝ በተልይ እሱ አንድ ዎርድን በዛ አካባቢ ያሉ የተለያዩ ዎርዶችን በዙርያው አድርገን ማስቀመጣችን ልክ አእምሮችንም በዛው መንገድ እንዲቀመጥ ስለሚያስችል ያንን በዙርያው ያሉ ዎርዶችን እንዳንረሳው ስለሚያችሉን እሱ በቃ ለኔ ከዚህ በፊት እንደዚህ አይነቱን ስትራቴጂ ከዚህ በፊት ቢኖርና ባውቀው ብዬ የተመኘሁት እና አሁን እንድጠቀምበት ያነሳሳኝ በተልይ እሱ ዋና ነው።

ጠያቂ: በተማርችሁት መሰረት ስትራቴጂዎችን በእንግሊዝኛ በምንባብበት ጊዜ መጠቀም የንባብ ችሎታን ያዳብራል ብለሽ ታስባለሽ?

መልስ: አዎ በደንብ በደንብ ነው የማንበብ ችሎታችንን የምያዳብሩት ምክንያቱም እነዚህን ስትራቴጂዎች መከተላችን ንባቡን እንረዳዋልን ንባቡን ደግሞ ስንረዳው የንባብ ፍላጎታችን ይጨምራል ስለዚህ የንባብ ልማዳችን እየዳበረ እንደሚሄድ ያደርጋል።ስናነብ የማናውቀው አይነት ጽሁፍ የምናነብ ከሆነ ፤ መልእክቱ የማይገባን ሲሆን የማንበብ ፍላጎታችን ዝቅ ይላል። እነዚህን ስትራቴጂዎች ስንጠቀም ግን አንደርስታንድ ስለማናድረግው መልእክቱን የበለጠ ጓጉተን ስለምናነበው ስትራቴጂዎቹ በጣም ያግዙናል የማንበብ ልማዳችንም እንዲዳብር ያደርጋሉ።

ጥያቄ: እህ..ለምሳሌ የትኞቹን ስትራቴጂ ብትጠቀሙ በምን ጊዜ እና እንዴት ብትጠቀሙ የንባብ ችሎታን ያዳብራል ብለሽ ታስብዋለሽ?

መልስ: ለምሳሌ በጥናት ጊዜ እንግሊዝኛን በምናጠናበት ጊዜ አሁን ቮካብሌሪ(vocabulary skill) ስኬላችንን ለማዳበር ሴማንቲክ ማጥን(semantic mapping)-በንጠቀም ያንን በደንብ እንደምያዳብርልን እኔ በግሌ የሚሰማኝ እንደዛ ነው::ሴማንቲክ ማጥ ቮካብሌሪችን በደንብ እንድያደግ የምያደርግ ነው::ሌላኛው ደግሞ ቴኪንግ ናት በምናተናበት ጊዜ ለፈተና ስንቀመጥ በደንብ እንድናስታውሰው ፤ በግራፍ፤ በፒክቸር ሊሆን ይችላል እንደዛ አድረገን መጠቀሚያችን ለፈትና ጊዜ ቁልጭ ብሎ እንዲታየን አእምሮችን ውስጥ ሃሳቡ በደንብ ተቀምጦ ስለሚቆይ ለፈትናም ለተለያዩ ጊዜአቶችም በደንብ ለማስታወስ ያግዘናል ::

ጠያቂ: በጣም በጣም አመሰግናለሁ የምጨምራው ነገር አለሽ?

መላሽ:አዎ እንደዚህ አይነት ስትራቴጂዎችን በተለይ ሰማንቲክ ማጥንጥንግ አሁን ሳይሆን ከታች ከአለመንታሪ ጀምሮ ቢካተት ተማሪዎች ይወዱታል ይወዱታል ብቻ ሳይሆን የቮካብሌሪ ችሎታቸውን በደንብ ያዳብርላቸዋል ብዬ አስባለሁ::

ጠያቂ:በጣም አመሰግናለሁ::

ከአብነት ጋር የተደረገ ቃለመጠይቅ

ጠያቂ : እስቲ ለመጀምር ያክል የንባብ ክህሎት ላንተ ምንድነው?

መላሽ : ራዲንግ ለሰው ልጆች የተሰጠ ስጦታ ብየነው የማምነው::ማንበብ የተለያዩ ጥቅሞችን ይሰጠናል በምናነብበት ጊዜ የተለያዩ እውቀቶችን ለማግኘት እንዲሁም እራሳችንን ለማሳደግም ይጠቅመናል ::

እሺ ጥሩ :እንደምታውቀው ባለፈው ጊዜ የእንግሊዝኛ ንባብ ችሎታን ለማሻሻል የንባብ ስትራቴጂዎችን (reading strategies) መጠቀም በሚል ዙርያ ስልጠና ተሰጥቷል::ስልጠናውን እንደት አየኸው?

መላሽ: ያው ይሄኛው ለራዲንግ/reading/ የተዘጋጀው በጣም አራፍ ነው ብዬ ነው ማስብወ::እንዲሁ ደግሞ ብዙ የተሻሉ ጥቅሞችንም እናገኝበታለን ::ይህም አንባቢ የሆነ ዜጋ ካለ ለአንዲት አገር ማደግ አስተዋጾ ያደርጋል ብዬ አስባለሁ::

ጠያቂ: መልካም : የተሰጠው ስልጠና ከተለመደው የማስተማርያ ዘዴ ይለያል ብለህ ታስባለህ?

መልስ:እሱን እንኳን አላሰብም አንዳንድ ተጨማሪ ሃሳቦችን ለማኝነት ይረዳል ::

ጠያቂ : መልካም: በተማርችሁት መሰረት ስትራቴጂዎችን በእንግሊዝኛ ንባብ ጊዜ መጠቀም የንባብ ችሎታን ያዳብራል ብለህ ታስባለህ?

መላሽ: አዎ በደንብ ነው የሚሻሻልለው : ምክያቱም እንደዚህ አይነት ስልጠናዎች ሲዘጋጁ ከእንግሊዝኛ ቋንቋ ጋር በደንብ መግባባት እንችላለን::ከዛ በተጨማሪ እውቀታችንን ለማስፋት ይጥቅማል ብዬ አስባለሁ ::

ጠያቂ: ለምሳሌ ምንምን ስትራቴጂዎችን በትኛው የንባብ ጊዜ መጠቀም ለንባብ ይረዳል ብለህ ታሰባለህ?

መላሽ: አዎ ምንም ጥያቄ የለውም። እኔ አሁን ለምሳሌ ሁለት ያገኘኋቸው ፖይንቶች አሉ_ስኪሚንግ(skimming) እና እስካኒንግ (scanning) እናደግሞ ሃይላይቲንግ(highlighting)። እነዚህ በጣም ጠቅሙኛል አሁን ለምሳሌ ስኪሚንግን ብንመልከት የምንፈልገውን ሃሳብ በቀላሉ ለማግኘት ይረዳናል እንዲሁም ደግሞ ይህንን ዘዴ መጠቀም የምንችለው ለመግቢያ ወይም ዋናውን ሃሳብ ለመረዳት ነው።ይህንን ለማድረግ ደግሞ ከማንበባችን በፊት ወይም ከምናነብበት ጊዜ ጀምሮ መጠቀም እንችላለን።Highlighting degmo ,it is emphasizing major points.ዋናውን ፖይንት በማስመር ለማስታወስ ይረዳናል የተለያዩ ክለሪንግ ተጠቅመን አንደርላይን እናደርጋለን፣ ካፒታል ሌትር፣ቦልድ መጠቀም እንችላለን።እና እነዚህን ሁለቱን(skimming and scanning) የመረጥኩበት ዋናው ምክንያት ከተማሪ አንጻር ምንድነው አሁን ወቅቱንም ስንመለከት የፈትና ጊዜ ስለሆነ እንዚህን ሁሉት የንባብ አይነቶች ብንጠቀም አንደኛ የማስትወስ ችሎታችን ይጨምራል ብተጨማሪ አንብቦን የምንረዳው ነገር እየጨመረ ይመጣል።

ጠያቂ:የቀረ የምጨምረው ነገር አለ?

መላሽ : የለም በጣም ነው የማመስግነው

ጠያቂ:እኔም በጣም ነው የማመስግነው ለትብብርህ።

ቃለመጠይቅ ከባህር ጋር

ጠያቂ : ወደዋናው ጥያቄ ከመሄዳችን በፊት የንባብ ክህሎት ምንድነው ላንቺ?

መላሽ : ማለት ለምሳሌ በምን አይነት መንገድ ማንበብ እንዳለብኝ እቅድ ውይም ደግሞ እንዳሰብ ያደርገኛል ሳኑበ ማለት ለእነ ግልጽ እንዲሆንልኝ እንዲሆንልኝ ስትራቴጂዎች እያሰብኩኝ እጠቀማለሁ

ጠያቂ :ባለፈው ጊዜ የእንግሊዝኛ ንባብ ችሎታን ለማሻሻል የንባብ ስትራቴጂዎችን (reading strategies) መጠቀም በሚል ዙርያ የተሰጠ ስልጠና ነበር እሱን ነገር እንዴት አየሽው ማለት የስልጠናው ሁኔታ እንዴት ነበር።

መላሽ:በጣም ደስ ይል ነበር ማለት አሪፍ ነበር።ከዚህ በፊት አኑብ ነበር ግን ይህን ያክል ለስትራቴጂዎች ቦታ ሰጥቻቸው አልነበረም ማለት በተለምዶ ብቻ ነበር የማርጋቸው ነገር ግን ስልጠናውን ካገኘሁ ብኋላ ለምን : በምን መንገድ፡ ምን አይነት ጥቅም እንደሚሰጠኝ ስላወቅኩኝ ለኔ ጥቅም ይሰጠኛል ብየ የማስብበት ቦታ ላይ በደንብ በትኩረት እንድሰራበት አድርጎኛል።

ጠያቂ: ይህ ስልጠና ከተለመደው የማስተማርያ ዘዴ የተለየ ነው ብለሽ ታስብያለሽ?

መላሽ:አዎ ማለት ከተማርነው አንጻር ብንከተው በጣም አሪፍ ነበር ስንማርም እንዳልኩስህ በተለምዶ ነበር እዚህ ጋር ግን ሁሉም ነገር ስለተዘረዘረልን በደንብ ጠቅሞናል ብየ አስባለህ

ጠያቂ: እሺ ጥሩ የተማርቻኋቸው ስትራቴጂዎችን በእንግሊዝኛ ንባብ ጊዜ የንባብ ችሎታን ያዳቢራል /ያሻሽላል ብለሽ ታስቢያለሽ?እንደት?

መላሽ: አዎ በደንብ ማለት አሁን ለምሳሌ እያንዳንዱን በምንከተልበት ጊዜ አሁን የተለያዩ ያነባቡበ ዘዴዎች አሉ ብለናል ሲለዚህ እያንዳንዱን በምንጠቀምበት ጊዜ ለምሳሌ ተመሳሳይ ቃላቶችን ስንፈጥር ምናምን ያነባቡበ ችሎታችንን እንድናይ ይረዳናል። ለምሳሌ ፕላን መጨረሻው ምን ሊሆን ይችላል ብለን በምናስብበት ጊዜ ያስተሳሰብ ችሎታችን ይጨምርልናል። የቋንቋ ችሎታችን ይዳብራል የምንረዳበትን ሁኔታ ሰፊ አድርገን እንድናይ ይጠቅመናል ማለት ነው።

ጠያቂ: ለምሳሌ ከተማርችኋ ስትራቴጂዎች ውስጥ የትኞቹን መጠቀም የንባብ ችሎታን ያዳብራል /ያሻሽላል ብለሽ ታስቢያለሽ?

መላሽ: አሁን ለምሳሌ ተመሳሳይ ዎርዶችን ማለት እንደዚህ ክብ ክብ ነገር እየሰራን ተያያዥ ረዕቶችን እያያዝን ስንጠቀም እና ደግሞ ዋናዋና ሃሳቦችን ስንይዝ ፤ ሁለተኛው ደግሞ ከስር ስምር እያረን ውይም ደግሞ ስናነብ ዋና ሃሳቡ ላይ ውይም ደግሞ ትኩረት ልንሰጠው የሚንፈልገውን ከለላው ሃሳብ ሚን ይለየዋል ቢለን የምናስበው ላይ ሰመር አድርገን በምናልፍበት ጊዜ ያነገር ይጠቅመናል ወይ ደግሞ ደግመን ስናነብም ሆነ ሃይላይት አይተን ሃሳቡን ቶሎ እንድንረድው ያደርገናል ማለት ነው።

ጠያቂ : በጣም አመሰግለ ቀሪ ሃሳብ አለሽ?

መላሽ: በመጀመርያ እድሉን ስለሰጣችሁኝ እና በስልጠናው እንድንማርበት ስላደረጋችሁ በጣም አመሰግናለሁ። ትምህርቱን በማግኘቴ በጣም ደስ ብሎኛል በጣም አመሰግናለሁ።

ቃለመጠይቅ ከሃና ጋር

ጠያቂ : ስለመልካም ስለመጣሽ አመሰግናለሁ። እስቲ ወደዋናው ጥያቄዎችቻችን ከመግባታችን በፊት የንባብ ክህሎትን(reading skill) ላንቺ ምንድነው እንዴት ትገልጭዋለሽ?

መላሽ : ያው ማንኛውም ተማሪ የማንበብ ስልት አለው ። እኔም አብዛኛው ይመሳሰላል መጽሃፍም ሆነ ሌላ ነገር ሳነብ የራሴ የሆነ የምጠቀምበት ነገሮች አሉኝ ።

ጠያቂ: በጣም ጥሩ። ሌላኛው ጥያቄዎችን የሚሆነው ስልጠናውን የተመለከተ ነው። እንደምታውቁው ባለፈው ጊዜ የእንግሊዝኛ ንባብ ችሎታን ለማሻሻል የንባብ ስትራቴጂዎችን (reading strategies) መጠቀም በሚል ስልጠና ተሰጥቷል። እሱን ነገር እንደት አየሽው ምንስ አዲስ ነገር አገኘሽ?

መልስ : አዎ በጣም ተቃሚ ነው ለምን እኔ አብዛኛው አደርጋቸው ነበር ግን አሁን ነው ይህንን ሳይ ነው አረጋቸው ነበር ውይ ብዬ በደንብ ያስተዋልኩት አሁን ነው። እንደዚህ በስቴፕ አላውቅም ነበር እንዚህ እንዚህን አላስብም ነበር። አሁን ይህን ሳይ እንዚህን እንደማደርጋቸው ከስልጠናው ብኋል አይቻለሁ። ለምሳሌ እዚህ ላይ (ስልጠናው ላይ) ሰማንቲክ ማፒ የሚለው ማፕ ስርቶ ከዛ ከነሱ ጋር የሚናገሩትን ቃላት ኮኔክት ማድርግ(semantic mapping) ፤ ስልፍ ሞኒተሪንግ(self-monitoring) ማለት ሳነብ እራሱን መቆጣጠር ማለት ነው። ሌላ ነገር ሳላስብ የማነበው ነገር ላይ

ብቻ ትኩረት ምድረግ ማለት ነው። ፕሪድክሽን(prediction) አለ ለምሳሌ ረእሱን ብቻ አይቶ ሳያነቡ መገመት እኔ ብቻ አይደለሁም አብዛኛው ተማሪ ያደርገዋል።

ጠያቂ: ይህ ስልጠና ከተለመደው የማስተማርያ ዘዴ ይለያል ብለሽ ታስብያለሽ?

መላሰ:አዎ ይለያል የተወሰነ ቢመሳሰልም ከክፍል ውጭ የማደርጋቸው አሉ።

ጠያቂ :ከተማርቻኋቸው ስትራቴጂዎች ውስጥ በእንግሊዝኛ ንባብ ጊዜ የትኞቹን መጠቀም የንባብ ችሎታን ያዳብራል /ያሻሽላል ብለሽ ታስቢያለሽ?

መላሰ: አዎ በደንብ ነው የሚያሻሽለው አሁን ለምሳሌ ሰልፍ ኢንከሬትመንት እሱ ለራሳችን ሪስክ መውሰድ ማለት ነው።ያንን ነገር ባነብ አሪፍ ውጤት ካመጣሁ አመጣሁ ነው ካልሆነ ግን በሚቀጥለው ላይ አሪፍ ነገር ማምጣት አለብኝ ብዬ ማሰብ ነው።

ጠያቂ: መልካም በጣም አመሰናልሁ

መላሰ:ችግር የለም

ቃለመጠይቅ ከአለም ጋር

ጠያቂ:ሰለመልካም ትብብርሽ አመሰናለሁ። እስቲ ወደዋናው ጥያቄዎችቻችን ከመግባታችን በፊት የንባብ ክህሎት ላንቺ ምንድነው?

መላሰ :ማንበብ ላይ ምንም አልልም ካነበብኩ እረዳለሁ እኛ ሰዎች ብዙ ጊዜ የማንበብ ፍላጎት የለንም እንጂ

ጠያቂ: እሺ ጥሩ እንደምታውቁው ባለፈው ጊዜ የእንግሊዝኛ ንባብ ችሎታን ለማሻሻል የንባብ ስትራቴጂዎችን (reading strategies) መጠቀም በሚል ዙርያ ስልጠና ተሰጥቷል ስለጠናው ምን ታስብያለሽ?

መላሰ:አዎ አዎ አዳዲስ የመጡ ስትራቴጂዎችም አሉ።አሁን ላይ ሰማንቲክ ማፒንግ ብዙ ሰው አይጠቀመውም ። እነሱ ለኛ እዲስ ስለሆኑ ለማንበብ ይጠቅሙናል።

ጠያቂ: ይህ ስልጠና ከተለመደው የማስተማርያ ዘዴ የተለየ ነው ብለሽ ታስብያለሽ?

መላሰ:አዎ የተወሰነ ከተለመደው የተልዩ ነገሮች አሉ ለምሳሌ በፊት እንዲሁ ዝምብለን ስኪም እና እስካን እንዲሁም ገስ ልናደርግ እንችላለ።

ጠያቂ: አመሰግለሁ እንግዲህ ስልጠናው ጠቃሚ ነበር ነው አደል ያልሸኝ፤ ስልጠናው ጠቃሚ ነበር ካልሸኝ የተምራችኋቸውን ስትራቴጂዎች በእንግሊዝኛ ንባብ ጊዜ መጠቀም የንባብ ችሎታን ያዳብራል ብለሽ ታምኛለሽ/ታስቢያለሽ?

መላሰ:በደንብ አዎ አስባለሁ/ ፈገግታ/

ጠያቂ: እንዴት?

መላሽ: ምክንያቱም የመያዝ አቅማችንን ይጨምርልናል :: እነኚህን ስትራቴጂዎች በተጠቀምን ቁጥር ... ሃይላይትን በምናይ ሰአት አንደዬ አንብባለሁ ይበልጥ በደጋገምን ጊዜ ይበልጥ የመያዝ አቅማችን ስለሚጨምርልን በጣም ይጠቅመናል ብዬ ነው የማስብው።

ጠያቂ: መልካም ለምሳሌ ከተማራችሁት ውስጥ የትኞቹን ስትራቴጂዎች በይትኛው የንባብ ጊዜ ብትጠቀሙ ይበልጥ ትጠቀማላችሁ?

መላሽ: እሽ እንዳልኩት አሁን ሴማንቲክማፒን ብናየው እ... ሃይላይት ብናደርግ ፡፡ ፕሪዲክት ብናደርግ አንብባለሁ እንድይዝ ያደርጋል ፡፡

ጠያቂ: ቀረ የምትይው የምጨምራው ካለ?

መላሽ: አረ የለም

ጠያቂ: በጣም አመሰግናለሁ ሰላም ሁኝ።

ቃለመጠይቅ ከአማን ጋር

ጠያቂ : ስለመልካም ትብብርህ አመሰግለሁ ወደዋናው ከመግባታችን በፊት ለመግብያ ያክል የንባብ ክህሎት ላንተ ምንድነው?

መላሽ : የንባብ ክህሎት የምንለው አንድን ነገር አይቶ ዎይም አንብቦ መረዳት ይመስለኛል ፡፡ ወይም ተረድተሽም ያንን ነገር አላማ ላይ ማዋል ወይም ያነበብሽው ነገር ምንድነው እንዴት ነው ብለን የምናስብው ነገር ነው። ወይም ለውቅት መነሻችን ራዲንግ ነው። ምክንያቱም አንድሰው አንብቦ እውቀቱን ማስፋት አለበት ብዬ አምናለሁ።

ጠያቂ: እንደምታውቀው ላለፉት አራት ዎራት የእንግሊዝኛ ንባብ ችሎታን ያሻሻል በሚል የንባብ ስትራቴጂዎችን (reading strategies) በመጠቀም ዙርያ ስልጠና ተሰጥቶ ነበር ስልጠናውን እንዴት አየኸው?

መላሽ: አዎ ያው ስልጠናው እኛ ተማሪዎች የተለያዩ ነገሮችን እንዴት ማንብብ እንዳለብን ለምሳሌ ዝምብለን ማንብብ ሳይሆን ያንን ነገር ወደተግባራዊ ነገር መቀየር። ካነበብን ብኋል ሾርት ፍት አድርገን ማውጣት ወይም ያን ነገር ደግሞ በቃ የተለያዩ ነገሮችን ማድመቅ ማስመር ወይም እርስበርስ መጠያየቅ ሊሆን ይችላል ፡፡ ወይ ደግሞ ነገሮች በጣም ከፈጠኩብን ያነገር ምንብብ ካለብን ‘በገረፍታ’ ወይም ‘በአሠሣ’ የምናነባቸው ናቸው።

ጠያቂው : ስልጠናው ከተለመደው/በፊት ከነበረው የማስተማርያ ዘዴ የተለየ ነው ብለህ ታስባለህ?

መላሽ: አዎ ይላል ምክንያቱም አንድ ነገር ስልጠና ስለጭኮ ተጨማሪ ነገር ነው እንጂ ያለውን ነገር አይደለም። ተጨማሪ ነገር ታፈሪበታለሽ ያለውን ነገር፡ ስለዚህ ተጨማሪ አፍሪተስህ ደግሞ እኔስ በሚን ያክል ደረጃ እሄዳለሁ፤ ይህን ነገር እተገብረው ነበር ከአሁን በፊት? ወይስ ከዚህ በኋላ እተገብረዋለሁ? ስልጠናውም የመጣው ተጨማሪ ሆኖ

አግኝተነው ነው ፤ ተማሪዎች በዚህ ልክ መሄድ አለባቸው ወይም የምያጠኑ ሰዎች ይህን መከተል አለባቸው ብለው ስለሚያምኑ ዐዎ ስልጠናው ተጨማሪ ነገር አምጥቶልናል/አምጦልኛል እኔ በግሌ ።

ጠያቂ: በተማርቸው ስትራቴጂዎችን በእንግሊዝኛ በምንባብበት ጊዜ መጠቀም የንባብ ችሎታን ያዳብራል ብለህ ታስባለህ?

መላሽ: አዎ በጣም

ጠያቂ: የትኛው ስትራቴጂ የበለጠ ጠቀመህ

መላሽ: ለምሳሌ አንድን ንባባ አንብበን ሳመራይዝ /summarize/ በምናደርግበት ጊዜ እንደገና እንከልሳለን፡ በምናደርግበት ጊዜ እናስምራለን ወይም ያንኑ ከምናይ ዋና ዋና ፖይንቶችን ኖት እንወስዳለን እንረዳለን፡፡ ስለዝህ እነዚህን በምናደርግበት ጊዜ የማንበብ እንትኖችን ዎይም ነገሮችን በቀላሉ እንድንረዳ ስለሚያደርገን ያንን ነገር በጣም እንደጋግማልን ። ለምሳሌ አንብበሽ ውጤታማ ስትሆኚ ራዲንግ ስኬልሽን ለምዳበር ያንን ነገር ትደጋግማለሽ ስለዚህ ያነገር በጣም ጠቅሞኛል።

ጠያቂ: በጣም ነው የማመስግነው ስለትብብርህ

መላሽ: እኔም ስለተሰጥኝ እድል በጣም አመሰናለሁ

Appendix L: English interview data (translated)

Interview with the first student Sara (S1)

Interviewer: Thank you for your willingness to be interviewed, to begin; how do you define reading skill or what is reading skill to you?

S1: I describe reading skill as reading any words or vocabulary from a certain material and understanding it, and if we do this our reading skill will be enhanced.

Interviewer: All right, thank you, as you know during the last semester, a reading strategy training that was aimed to improve students' reading comprehension was conducted. So what do you think about the training?

S1: Yes, I am very happy about the training because we used to learn some strategies starting from elementary, for example, skimming and scanning in our reading ability. But now after the training, I have learned and am aware of more strategies that can be used during reading, which encouraged me to use them. So the training helped me.

Interviewer: Is the new teaching method (strategy training) different from previous/ conventional teaching reading methods? How

S1: Yes it is very different from the conventional method, for example, I am very happy about learning ‘semantic mapping’ because I didn’t have any idea about this strategy before. Using semantic mapping helps us to create a kind of picture in our mind. It helps us to remember the keyword and other words surrounding it. Now what I said is I wish I could have known such a strategy before, and I am motivated to use it after the training.

Interviewer: Do you think reading strategy instruction during reading classes is important to improve your reading comprehension?

S1: Yes definitely, the strategies we learned are helpful to improve our reading comprehension, and as we use the strategies we can comprehend a passage, and when we comprehend the passage our reading interest increases, which in turn increases our reading habits. Whenever we read a new text and don’t understand it, we will be less motivated to read further. However, if we apply the strategies we learned, we can eagerly read to understand the message of the text.

Interviewer Can you mention some of the strategies that you learned from the training?

S1: For example, when we study, I feel that semantic mapping is very important to enhance our vocabulary knowledge. According to this strategy we bring all words we know before and connect to the new word in our reading (before or while reading). This can help us to remember the meaning of words while reading what we read. Another strategy is note-taking through different techniques such as using graphs and pictures are very helpful in understanding ideas and keeping in mind to memorize easily during exams as well as other situations.

Interviewer: Thank you very much.

Interview with Abnet (S2)

Interviewer: How do you define reading skills in English and its importance?

S2: reading is naturally being done by human beings, and we try to get knowledge through it, and it is important to develop ourselves.

Interviewer: What do you think about the benefit or advantage of reading strategy instruction that was delivered last semester?

S2: I think the training was very nice. It helps us to read more. The more we have reader citizens, the better the development of a country.

Interviewer: Is the new teaching method (strategy training) different from previous/conventional teaching reading methods? How

S2: I don't think so. But I think we get more information from the training that can help us to develop our reading skill

Interviewer: Do you think reading strategy instruction during reading classes is important to improve reading comprehension?

S2: Yes, yes unquestionably the training is important because while such kind of training is prepared, I think we can implement what we have learned which can help us to improve our knowledge of English.

Interviewer: Which strategies do you think are more important based on the training?

S2: For example, I have found two important points from the training; skimming and scanning as well as highlighting become very important for me. Skimming helps us to find the idea of the passage easily. I realized we can use this strategy before reading or during reading to find the main idea. Highlighting is emphasizing major points, it is underlying or coloring the main point to remember it later. After the training, I like skimming, scanning, and highlighting because this is exam time and if we use these strategies when we study we can understand the main ideas easily and we can remember what we read.

Interviewer: Would you like to add something else?

S2: No, thank you very much

Interviewer: I thank you too for your cooperation.

Interview with Bahir(S3)

Interviewer: How do you define reading skills in English and their importance?

S3: I think about how I can read, what method I should use, and what style I should use in my reading, and when I read I use strategies that help my reading

Interviewer: What do you think about the reading strategy use training that was conducted during the last semester?

S3: the training was very interesting, I mean it was nice. Before this training, in my reading, I used some strategies unconsciously without being aware of them. However, after the training, I am very much aware of several reading strategies and know why and how to use them in different reading activities. Now I realize the importance of using those strategies whenever I plan to use them.

Interviewer: Is the new teaching method (strategy training) different from the conventional teaching reading methods? How?

S3: Yes if we implement what we have learned, it could be very helpful as I said we have been using strategies unconsciously, but I think in the training detailed explanation is given about reading strategies including their usage/importance

Interviewer: Do you think using the reading strategies (practiced) during the training is important to improve your reading comprehension

S3: Certainly, sure. I mean we said that there are different reading strategies that we use in our reading whenever we use each strategy, for example when we plan, and become eager to know the final idea of the text, our thinking ability as well as our language performance also would be increased.

Interviewer: Based on the training, can you mention some important reading strategies?

For instance, when we use synonym words I mean we use circles to get and connect similar, then we take short notes, and we underline the main points which means we underline the main idea or give emphasis to the idea that we want when we read. This would help us to understand fast when we re-read it.

Interviewer: Thank you, do you have something to add?

S3: I am thankful for getting such important training.

Interview with Hana (S4)

Interviewer: How do you define reading skills in English?

Hana S4: When we say reading, everybody has his/her own reading style or reading technique, and most of us use similar methods. In my case, I have my reading methods while reading academic texts or not.

Interviewer: Thank you. What do you think about the benefit of reading strategy training that was conducted during the last semester?

S4: Ya, the training was very important because I used some of the strategies before the training but after the training, I started to ask questions myself whether I have used the strategies or not, I got more awareness including the steps while using strategies. **Self-monitoring** –I found this strategy is important because we focus on what we are reading forgetting the rest. Semantic mapping is also about connecting similar words. Predicting is looking at the pictures or some other things without detailed reading. I try to guess what comes next while I am reading.

Interviewer: Is the new teaching method (strategy training) different from the conventional teaching reading methods? How?

S4: Yes to some extent it is different from the conventional teaching method. But I also use my own ways or techniques while reading

Interviewer: Do you think reading strategy instruction during reading classes is important to improve your reading comprehension? If yes, can you list some of the strategies from the training?

S4: ya definitely, if use those strategies in our reading our reading skills will be improved. For example, self-encouragement is about taking risks, and whenever I am successful in my reading it is good if not I would encourage and promise myself to improve my reading for next time.

Interviewer: thank you very much

S4: it is ok

Interview Alem (S5)

Interviewer: How do you define reading skills in English and its importance?

S5: I am okay at reading I mean if I read I can understand the given text, but most of the time we people are not interested in reading.

Interviewer: That is nice. What do you think about the benefit of reading strategy instruction that was conducted during the last semester?

Interviewee: Ya it is important. There are new strategies in the training, for example, many students do not use semantic mapping. Since such strategies are new, they help us with our reading.

Interviewer: Is the new teaching method (strategy training) different from the conventional teaching reading methods? How?

S5: Yeah, there are differences between the conventional teaching method and the new one (the training). For example, we could use scanning, skimming, and guessing unconsciously before. However, after the training strategies we get awareness of different strategies like semantic mapping and other new strategies that can help us to read and understand a given passage.

Interviewer: Do you think reading strategy instruction during reading classes is important to improve your reading comprehension?

S5: Exactly, haha... I feel that the strategies we learned help us to improve our reading ability because the more we use those strategies the better our reading ability is.

Interviewer: Can you mention strategies you learned from the training?

For example when repeat what we read and use highlighting. As I said if we use semantic mapping, when we highlight, and predict before, while and after reading, our reading comprehension would be improved.

Interviewer: Do have anything to add?

S5: No

Interviewer: thank you very much, stay safe.

Interview with Aman (S6)

Interviewer: Alright, thank you for your willingness, to start with, how do you define reading skills in English?

S6: I think reading means looking at something or reading and understanding it. And in our reading, we have to think about how something happens. Reading is the base for knowledge because I feel that a person should read and boost his/her knowledge.

Interviewer: What do you think about the benefit of reading strategy training that was given during the last semester?

S6: From the training I learned how we read; we should take short notes highlight using different things or ask each other. If we don't have time we can use 'Gerefta' and 'Assessa' in our reading.

Interviewer: Is the new teaching method (reading strategy training) different from the usual teaching reading methods? How?

S6: Yes it is different because if you are given training it is about additional knowledge, not the existing one. After the training, I started to think that I could use those strategies or I could apply what I got from the training in the future. So I can say, personally, the training has brought something new.

Interviewer: Do you think the training is important to improve your reading comprehension?

S6: Yes, it does.

Interviewer: Depending on the training, which strategies are more helpful for you reading?

S6: For example, after reading a certain text, we summarize or take notes then we can easily understand while referring to our short note or summary instead of looking back at the whole text, and we repeat the passage again and again. Whenever we are successful in our reading, our reading skills would be improved if so we repeatedly use strategies.

Interviewer: Thank you very much for your cooperation

Appendix M: Sample lesson plan of the control group

DATE	PERIOD	TIME	MAIN CONTENT	TEACHERS ACTIVITY	STUDENTS ACTIVITY	TEACHING AIDS
16/06/12	1st	5.	Reading climate change	INTRODUCTION - introducing the lesson - motivating by checking what PRESENTATION - listen to read - ask about climate - try to comprehend STABILIZATION - strengthening the lesson - asking key vocabulary EVALUATION - repeating the main points - giving exercises	Following up - listening & talking - Doing exercises	
	2nd	5.	Work power of climate change	INTRODUCTION - introducing of checking home-work PRESENTATION - giving contexts - let them tell synonyms & antonyms STABILIZATION - let them make their own sentences - strengthen the lesson EVALUATION - asking & answering - giving exercises	following up - making sentences - revising sentences - Doing exercise	
	25	5.	Discourse markers	INTRODUCTION - introducing, motivating & revising the previous lesson PRESENTATION - giving hints to discuss more about, asking & responding in groups. STABILIZATION - strengthen the lesson - repeating the main point EVALUATION - giving exercises	following up - Discussing - follow up - Doing exercises	

NAME & SIGN

16/06/12-

D/HEAD NAME & SIGN

Appendix N: Raw data for Questionnaire

I. Raw data for pre-questionnaire (27 items for the main study)

NO.	Pre- questionnaire scores of the Control Group										
1.	3.00	3.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00	2.00	3.00
		2.00	2.00	2.00	2.00	2.00	3.00	2.00	3.00	2.00	3.00
		2.00	3.00	2.00	3.00	2.00	2.00				
2.	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00
		3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00	2.00
		2.00	3.00	3.00	3.00	3.00	3.00				
3.	3.00	3.00	3.00	2.00	3.00	2.00	3.00	3.00	3.00	2.00	3.00
		3.00	3.00	3.00	2.00	3.00	2.00	3.00	2.00	3.00	3.00
		3.00	3.00	2.00	3.00	2.00	2.00				
4.	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00
		3.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00	3.00	2.00
		3.00	2.00	2.00	2.00	2.00	2.00				
5.	2.00	3.00	2.00	2.00	2.00	3.00	3.00	2.00	3.00	2.00	3.00
		2.00	2.00	3.00	2.00	2.00	2.00	3.00	2.00	2.00	3.00
		2.00	2.00	3.00	3.00	2.00	3.00				
6.	3.00	2.00	3.00	2.00	3.00	3.00	3.00	2.00	3.00	3.00	3.00
		2.00	2.00	3.00	2.00	2.00	3.00	2.00	2.00	2.00	3.00
		2.00	2.00	3.00	2.00	3.00	2.00				
7.	3.00	2.00	3.00	2.00	3.00	3.00	2.00	2.00	4.00	3.00	2.00
		4.00	2.00	2.00	2.00	3.00	3.00	2.00	3.00	3.00	3.00
		3.00	2.00	3.00	3.00	2.00	3.00				
8.	2.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00	2.00
		3.00	3.00	2.00	3.00	2.00	3.00	2.00	3.00	2.00	2.00
		2.00	3.00	2.00	2.00	2.00	3.00				
9.	3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00	3.00	2.00
		3.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00	2.00	3.00
		2.00	3.00	3.00	2.00	3.00	2.00				
10.	3.00	3.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00	3.00	2.00
		2.00	2.00	2.00	3.00	2.00	2.00	2.00	3.00	2.00	2.00
		3.00	2.00	2.00	3.00	3.00	2.00				
11.	2.00	3.00	3.00	3.00	3.00	2.00	2.00	3.00	3.00	3.00	3.00
		3.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00	2.00	3.00
		2.00	3.00	3.00	2.00	2.00	3.00				
12.	3.00	3.00	2.00	3.00	3.00	3.00	2.00	3.00	2.00	2.00	3.00
		3.00	2.00	3.00	2.00	3.00	3.00	2.00	3.00	2.00	3.00
		3.00	2.00	2.00	2.00	3.00	2.00				
13.	3.00	2.00	2.00	2.00	3.00	3.00	3.00	2.00	3.00	3.00	3.00
		2.00	3.00	2.00	3.00	3.00	2.00	2.00	2.00	3.00	2.00
		3.00	2.00	3.00	3.00	2.00	3.00				

14.	3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00
		3.00	3.00	3.00	2.00	2.00	3.00	2.00	3.00	2.00	2.00
		2.00	3.00	3.00	3.00	2.00	2.00				
15.	3.00	3.00	3.00	3.00	3.00	2.00	3.00	2.00	3.00	3.00	3.00
		3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00	3.00
		2.00	2.00	3.00	3.00	2.00	2.00				
16.	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		3.00	3.00	3.00	2.00	2.00	2.00	3.00	2.00	3.00	2.00
		3.00	3.00	2.00	2.00	3.00	2.00				
17.	2.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		2.00	3.00	3.00	2.00	3.00	3.00	3.00	2.00	2.00	3.00
		3.00	3.00	2.00	2.00	2.00	3.00				
18.	2.00	3.00	3.00	3.00	2.00	3.00	2.00	2.00	3.00	3.00	3.00
		3.00	3.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00	3.00
		2.00	3.00	2.00	3.00	2.00	1.00				
19.	2.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00	4.00	3.00	3.00
		3.00	3.00	3.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00
		3.00	2.00	2.00	3.00	3.00	2.00				
20.	3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00
		3.00	3.00	3.00	2.00	2.00	2.00	3.00	3.00	2.00	2.00
		3.00	3.00	2.00	2.00	2.00	2.00				
21.	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00
		2.00	2.00	3.00	2.00	3.00	3.00				
22.	2.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00
		3.00	3.00	2.00	3.00	2.00	2.00	3.00	3.00	3.00	3.00
		2.00	3.00	2.00	3.00	3.00	3.00				
23.	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	2.00	2.00
		2.00	3.00	3.00	3.00	3.00	2.00	3.00	2.00	3.00	2.00
		2.00	3.00	2.00	2.00	2.00	2.00				
24.	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		3.00	3.00	3.00	3.00	2.00	3.00	2.00	3.00	3.00	3.00
		3.00	2.00	2.00	2.00	2.00	2.00				
25.	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00
		2.00	2.00	2.00	3.00	3.00	2.00	2.00	2.00	3.00	2.00
		2.00	3.00	2.00	3.00	3.00	2.00				
26.	3.00	2.00	2.00	2.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00
		2.00	2.00	3.00	2.00	2.00	3.00	2.00	3.00	2.00	2.00
		2.00	2.00	3.00	3.00	2.00	3.00				
27.	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00
		3.00	2.00	3.00	3.00	3.00	2.00	2.00	2.00	4.00	3.00
		2.00	3.00	3.00	2.00	2.00	3.00				

28.	2.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00	3.00	2.00	3.00
		3.00	3.00	2.00	2.00	2.00	3.00	3.00	3.00	2.00	2.00
		2.00	3.00	2.00	2.00	2.00	3.00				
29.	3.00	2.00	2.00	3.00	2.00	3.00	3.00	3.00	3.00	2.00	2.00
		2.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00	4.00	2.00
		3.00	2.00	2.00	2.00	3.00	2.00				
30.	3.00	3.00	2.00	2.00	2.00	3.00	3.00	5.00	3.00	3.00	3.00
		3.00	3.00	2.00	3.00	2.00	3.00	3.00	3.00	3.00	3.00
		2.00	2.00	2.00	3.00	3.00	2.00				
31.	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		3.00	2.00	2.00	3.00	3.00	2.00	2.00	3.00	2.00	2.00
		3.00	3.00	3.00	2.00	2.00	2.00				
32.	3.00	2.00	2.00	2.00	2.00	2.00	3.00	2.00	2.00	3.00	2.00
		2.00	3.00	3.00	2.00	3.00	3.00	2.00	2.00	3.00	2.00
		2.00	2.00	2.00	2.00	3.00	2.00				
33.	2.00	3.00	3.00	3.00	3.00	3.00	4.00	3.00	3.00	3.00	2.00
		4.00	2.00	3.00	3.00	3.00	3.00	2.00	4.00	3.00	3.00
		4.00	3.00	2.00	2.00	2.00	2.00				
34.	3.00	2.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00	2.00	3.00
		2.00	3.00	2.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00
		2.00	2.00	3.00	2.00	2.00	3.00				
35.	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	3.00	3.00
		3.00	3.00	2.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00
		3.00	2.00	3.00	2.00	2.00	2.00				
36.	3.00	2.00	3.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00
		3.00	3.00	3.00	3.00	2.00	3.00	3.00	2.00	2.00	2.00
		2.00	3.00	3.00	2.00	2.00	2.00				
37.	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00
		3.00	3.00	3.00	3.00	2.00	2.00	3.00	3.00	2.00	3.00
		2.00	2.00	2.00	2.00	2.00	3.00				
38.	3.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		2.00	2.00	2.00	2.00	2.00	2.00	3.00	2.00	3.00	3.00
		2.00	2.00	2.00	3.00	2.00	3.00				
39.	3.00	2.00	3.00	3.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00
		2.00	3.00	2.00	2.00	2.00	3.00	2.00	3.00	2.00	2.00
		2.00	2.00	3.00	2.00	3.00	3.00				
40.	3.00	3.00	2.00	3.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00
		3.00	3.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	2.00
		2.00	2.00	2.00	3.00	2.00	2.00				
41.	3.00	3.00	3.00	3.00	2.00	3.00	3.00	2.00	3.00	2.00	3.00
		2.00	2.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00
		2.00	2.00	2.00	2.00	2.00	2.00				

42.	3.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00	4.00	3.00	2.00
		3.00	3.00	3.00	2.00	3.00	3.00	4.00	2.00	3.00	3.00
		3.00	3.00	3.00	2.00	3.00	3.00				
43.	3.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00	2.00
		2.00	2.00	3.00	2.00	2.00	3.00	2.00	2.00	3.00	2.00
		3.00	3.00	2.00	2.00	2.00	3.00				

Experimental Group's pre-questionnaire scores

44.	3.00	4.00	2.00	2.00	4.00	3.00	3.00	2.00	3.00	2.00	3.00
		3.00	3.00	2.00	2.00	3.00	2.00	3.00	3.00	2.00	3.00
		3.00	3.00	2.00	2.00	3.00	2.00				
45.	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		3.00	3.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00	2.00
		2.00	3.00	2.00	3.00	2.00	2.00				
46.	3.00	3.00	3.00	3.00	3.00	3.00	5.00	3.00	3.00	5.00	3.00
		3.00	2.00	3.00	3.00	2.00	2.00	4.00	3.00	2.00	2.00
		3.00	3.00	4.00	3.00	4.00	2.00				
47.	3.00	2.00	3.00	3.00	3.00	2.00	2.00	3.00	2.00	2.00	3.00
		2.00	3.00	2.00	3.00	3.00	3.00	3.00	2.00	3.00	2.00
		3.00	3.00	3.00	3.00	2.00	3.00				
48.	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00
		2.00	3.00	3.00	2.00	3.00	3.00	3.00	2.00	3.00	2.00
		2.00	3.00	3.00	3.00	3.00	2.00				
49.	3.00	3.00	2.00	3.00	2.00	3.00	2.00	3.00	3.00	3.00	3.00
		3.00	3.00	2.00	2.00	3.00	2.00	2.00	2.00	3.00	3.00
		3.00	3.00	3.00	3.00	2.00	3.00				
50.	3.00	2.00	2.00	3.00	2.00	3.00	2.00	3.00	3.00	3.00	2.00
		2.00	3.00	3.00	3.00	2.00	3.00	2.00	2.00	2.00	3.00
		3.00	2.00	3.00	3.00	2.00	3.00				
51.	2.00	2.00	3.00	3.00	3.00	3.00	2.00	3.00	2.00	2.00	3.00
		3.00	3.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00
		3.00	3.00	2.00	2.00	3.00	2.00				
52.	2.00	3.00	3.00	2.00	2.00	3.00	3.00	3.00	3.00	2.00	2.00
		2.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00	2.00	2.00
		3.00	2.00	3.00	2.00	3.00	3.00				
53.	2.00	2.00	3.00	3.00	2.00	2.00	3.00	2.00	3.00	3.00	2.00
		2.00	2.00	2.00	3.00	3.00	2.00	2.00	2.00	2.00	3.00
		3.00	3.00	2.00	3.00	3.00	2.00				
54.	2.00	2.00	2.00	3.00	2.00	2.00	3.00	2.00	2.00	3.00	2.00
		2.00	2.00	2.00	2.00	2.00	3.00	2.00	3.00	3.00	2.00
		3.00	3.00	3.00	3.00	2.00	3.00				

55.	3.00	2.00	4.00	2.00	4.00	3.00	3.00	3.00	3.00	2.00	3.00
		3.00	3.00	3.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00
		3.00	2.00	2.00	2.00	3.00	2.00				
56.	2.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	2.00	2.00	3.00
		3.00	3.00	3.00	2.00	3.00	2.00	3.00	2.00	3.00	2.00
		3.00	2.00	3.00	3.00	3.00	2.00				
57.	2.00	2.00	2.00	2.00	2.00	2.00	3.00	2.00	2.00	3.00	2.00
		3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00
		3.00	3.00	3.00	2.00	2.00	3.00				
58.	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		3.00	3.00	3.00	2.00	3.00	2.00	3.00	3.00	2.00	3.00
		3.00	2.00	2.00	3.00	2.00	2.00				
59.	3.00	3.00	3.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00
		2.00	3.00	2.00	2.00	3.00	3.00	3.00	2.00	3.00	2.00
		2.00	3.00	2.00	3.00	2.00	2.00				
60.	2.00	3.00	3.00	3.00	2.00	3.00	3.00	2.00	3.00	3.00	2.00
		3.00	2.00	3.00	3.00	2.00	3.00	2.00	3.00	2.00	3.00
		2.00	2.00	2.00	2.00	2.00	3.00				
61.	2.00	3.00	2.00	2.00	2.00	2.00	3.00	3.00	2.00	3.00	3.00
		2.00	3.00	3.00	3.00	3.00	2.00	3.00	2.00	3.00	2.00
		3.00	3.00	3.00	3.00	3.00	2.00				
62.	3.00	3.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00	2.00	2.00
		2.00	2.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	3.00
		2.00	3.00	2.00	3.00	2.00	2.00				
63.	2.00	2.00	3.00	2.00	2.00	2.00	3.00	3.00	2.00	2.00	2.00
		2.00	2.00	2.00	3.00	4.00	3.00	2.00	4.00	3.00	2.00
		2.00	3.00	3.00	4.00	3.00	3.00				
64.	3.00	2.00	2.00	3.00	3.00	2.00	2.00	3.00	2.00	3.00	2.00
		3.00	2.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00	3.00
		2.00	2.00	2.00	2.00	2.00	2.00				
65.	2.00	3.00	2.00	3.00	2.00	2.00	3.00	2.00	2.00	3.00	2.00
		3.00	2.00	2.00	2.00	3.00	3.00	3.00	2.00	2.00	2.00
		3.00	3.00	2.00	2.00	2.00	3.00				
66.	3.00	3.00	3.00	3.00	2.00	2.00	2.00	3.00	3.00	2.00	2.00
		2.00	3.00	2.00	2.00	3.00	3.00	5.00	3.00	3.00	3.00
		2.00	2.00	3.00	3.00	2.00	2.00				
67.	2.00	2.00	2.00	3.00	3.00	2.00	3.00	2.00	2.00	3.00	2.00
		3.00	2.00	3.00	2.00	2.00	3.00	2.00	2.00	3.00	3.00
		3.00	2.00	3.00	2.00	3.00	3.00				
68.	3.00	2.00	2.00	2.00	3.00	3.00	3.00	2.00	2.00	3.00	2.00
		3.00	2.00	2.00	3.00	3.00	2.00	2.00	3.00	2.00	3.00
		2.00	3.00	2.00	3.00	2.00	2.00				

69.	2.00	3.00	2.00	3.00	3.00	3.00	2.00	3.00	2.00	3.00	2.00
		2.00	3.00	2.00	3.00	3.00	3.00	2.00	2.00	3.00	3.00
		2.00	3.00	3.00	2.00	2.00	3.00				
70.	3.00	2.00	2.00	3.00	2.00	2.00	2.00	3.00	2.00	3.00	3.00
		2.00	3.00	3.00	3.00	2.00	3.00	3.00	2.00	3.00	3.00
		2.00	3.00	3.00	3.00	3.00	2.00				
71.	3.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	2.00	2.00
		2.00	2.00	3.00	3.00	2.00	3.00	2.00	3.00	3.00	2.00
		3.00	3.00	3.00	2.00	2.00	3.00				
72.	2.00	3.00	2.00	2.00	2.00	3.00	3.00	2.00	2.00	3.00	3.00
		3.00	3.00	2.00	2.00	3.00	2.00	2.00	2.00	3.00	2.00
		2.00	2.00	2.00	3.00	3.00	3.00				
73.	2.00	2.00	2.00	3.00	2.00	3.00	3.00	3.00	2.00	3.00	2.00
		2.00	3.00	2.00	3.00	2.00	2.00	3.00	3.00	2.00	2.00
		3.00	3.00	3.00	2.00	3.00	3.00				
74.	2.00	2.00	2.00	2.00	2.00	2.00	3.00	2.00	2.00	2.00	2.00
		2.00	3.00	2.00	2.00	3.00	2.00	3.00	2.00	3.00	3.00
		3.00	3.00	3.00	3.00	3.00	2.00				
75.	2.00	3.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00
		2.00	2.00	3.00	3.00	3.00	2.00	2.00	3.00	3.00	2.00
		2.00	3.00	2.00	2.00	3.00	2.00				
76.	3.00	3.00	3.00	3.00	2.00	3.00	2.00	3.00	2.00	2.00	3.00
		2.00	3.00	2.00	3.00	3.00	3.00	2.00	3.00	2.00	3.00
		3.00	2.00	2.00	3.00	3.00	3.00				
77.	3.00	2.00	3.00	2.00	2.00	4.00	3.00	2.00	3.00	2.00	3.00
		2.00	2.00	3.00	3.00	2.00	3.00	3.00	2.00	3.00	2.00
		3.00	3.00	3.00	3.00	2.00	3.00				
78.	2.00	3.00	3.00	4.00	2.00	3.00	3.00	3.00	4.00	3.00	2.00
		3.00	2.00	4.00	3.00	4.00	3.00	2.00	2.00	3.00	2.00
		2.00	3.00	3.00	2.00	3.00	2.00				
79.	3.00	3.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	2.00
		3.00	3.00	2.00	3.00	2.00	2.00	3.00	2.00	3.00	3.00
		2.00	3.00	3.00	3.00	3.00	3.00				
80.	2.00	2.00	3.00	2.00	2.00	3.00	2.00	2.00	2.00	2.00	2.00
		2.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	3.00	2.00
		2.00	3.00	2.00	3.00	2.00	2.00				
81.	3.00	2.00	2.00	2.00	3.00	2.00	3.00	2.00	2.00	2.00	3.00
		2.00	3.00	3.00	2.00	3.00	3.00	2.00	3.00	3.00	3.00
		2.00	3.00	3.00	3.00	2.00	2.00				
82.	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		2.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00	3.00	2.00
		3.00	3.00	2.00	3.00	3.00	2.00				

83.	3.00	2.00	3.00	2.00	2.00	3.00	2.00	3.00	3.00	3.00	3.00
		3.00	3.00	3.00	2.00	2.00	2.00	3.00	2.00	3.00	3.00
		3.00	3.00	2.00	3.00	3.00	2.00				
84.	4.00	4.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		2.00	2.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00	2.00
		2.00	2.00	3.00	2.00	3.00	3.00				
85.	3.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	2.00
		3.00	3.00	3.00	3.00	3.00	3.00	4.00	3.00	3.00	2.00
		3.00	3.00	2.00	3.00	3.00	3.00				
86.	3.00	3.00	2.00	3.00	3.00	2.00	3.00	3.00	2.00	3.00	3.00
		3.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00
		3.00	3.00	3.00	2.00	3.00	3.00				
87.	3.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	3.00
		3.00	2.00	3.00	2.00	2.00	2.00				

II. Raw data for post-questionnaire (27 items for the main study)

No.	Control Group's post questionnaire scores											
1.	3.00	3.00	2.00	3.00	2.00	3.00	2.00	3.00	3.00	2.00	3.00	
		2.00	2.00	3.00	3.00	3.00	2.00	2.00	2.00	3.00	2.00	3.00
		3.00	3.00	2.00	3.00	2.00	3.00					
2.	3.00	4.00	3.00	2.00	2.00	3.00	2.00	2.00	3.00	2.00	4.00	
		3.00	3.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	
		3.00	2.00	3.00	2.00	3.00	3.00					
3.	2.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	3.00	2.00	2.00	
		2.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	3.00	2.00	2.00
		2.00	3.00	2.00	3.00	2.00	2.00					
4.	2.00	2.00	3.00	3.00	3.00	4.00	2.00	3.00	2.00	2.00	3.00	
		3.00	2.00	3.00	3.00	2.00	3.00	3.00	3.00	2.00	3.00	3.00
		3.00	3.00	3.00	3.00	3.00	3.00					
5.	3.00	3.00	3.00	2.00	2.00	2.00	3.00	2.00	3.00	3.00	2.00	
		3.00	2.00	3.00	2.00	3.00	2.00	3.00	2.00	2.00	2.00	
		2.00	3.00	3.00	3.00	2.00	2.00					
6.	2.00	4.00	2.00	3.00	3.00	2.00	2.00	3.00	3.00	4.00	3.00	
		2.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	3.00	3.00	
		3.00	2.00	3.00	3.00	3.00	2.00					
7.	3.00	3.00	4.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	
		4.00	2.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00	3.00	
		2.00	3.00	2.00	2.00	2.00	3.00					
8.	3.00	2.00	3.00	2.00	2.00	3.00	2.00	2.00	4.00	3.00	2.00	
		3.00	3.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	2.00	
		3.00	2.00	3.00	3.00	3.00	2.00					

9.	2.00	2.00	2.00	3.00	2.00	2.00	3.00	2.00	2.00	3.00	3.00
		3.00	3.00	2.00	4.00	2.00	3.00	2.00	3.00	3.00	3.00
		3.00	3.00	3.00	2.00	2.00	4.00				
10.	2.00	3.00	3.00	3.00	2.00	4.00	2.00	4.00	2.00	2.00	3.00
		3.00	2.00	3.00	3.00	4.00	2.00	3.00	3.00	2.00	2.00
		3.00	2.00	3.00	3.00	2.00	3.00				
11.	3.00	2.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00	2.00	2.00
		3.00	3.00	3.00	3.00	2.00	3.00	2.00	2.00	3.00	3.00
		2.00	3.00	2.00	2.00	3.00	3.00				
12.	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	2.00
		3.00	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	2.00
		3.00	3.00	3.00	2.00	2.00	3.00				
13.	4.00	2.00	2.00	2.00	3.00	3.00	2.00	2.00	2.00	3.00	2.00
		3.00	2.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00	2.00
		3.00	3.00	3.00	3.00	3.00	2.00				
14.	2.00	3.00	2.00	3.00	3.00	3.00	2.00	2.00	2.00	4.00	3.00
		2.00	3.00	2.00	2.00	2.00	2.00	3.00	2.00	2.00	3.00
		3.00	3.00	2.00	2.00	2.00	4.00				
15.	4.00	3.00	3.00	2.00	3.00	2.00	2.00	3.00	3.00	2.00	2.00
		2.00	2.00	4.00	4.00	2.00	3.00	2.00	3.00	2.00	3.00
		3.00	3.00	3.00	2.00	2.00	2.00				
16.	3.00	2.00	2.00	2.00	3.00	3.00	2.00	2.00	2.00	2.00	4.00
		2.00	3.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00
		2.00	2.00	2.00	3.00	3.00	3.00				
17.	3.00	3.00	2.00	3.00	3.00	2.00	2.00	2.00	3.00	3.00	3.00
		2.00	3.00	3.00	2.00	3.00	2.00	2.00	3.00	2.00	3.00
		3.00	3.00	3.00	3.00	3.00	2.00				
18.	2.00	2.00	2.00	2.00	2.00	3.00	3.00	2.00	2.00	2.00	3.00
		2.00	3.00	3.00	3.00	2.00	3.00	3.00	2.00	3.00	2.00
		3.00	2.00	2.00	2.00	2.00	3.00				
19.	3.00	2.00	3.00	2.00	3.00	2.00	2.00	2.00	3.00	3.00	2.00
		3.00	3.00	2.00	2.00	2.00	2.00	2.00	3.00	2.00	3.00
		2.00	3.00	3.00	3.00	2.00	3.00				
20.	3.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	2.00	2.00	3.00
		2.00	2.00	3.00	3.00	3.00	2.00	3.00	3.00	3.00	2.00
		3.00	3.00	3.00	3.00	3.00	5.00				
21.	3.00	3.00	3.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	2.00
		3.00	4.00	2.00	3.00	2.00	3.00	3.00	3.00	3.00	2.00
		3.00	3.00	3.00	3.00	4.00	2.00				
22.	2.00	2.00	2.00	3.00	3.00	2.00	3.00	3.00	2.00	3.00	3.00
		3.00	2.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00
		2.00	2.00	2.00	3.00	3.00	3.00				

23.	3.00	4.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00
		3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00	2.00
		3.00	2.00	3.00	2.00	2.00	2.00				
24.	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	2.00	2.00	3.00
		3.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		2.00	2.00	2.00	3.00	3.00	3.00				
25.	3.00	2.00	3.00	3.00	2.00	2.00	2.00	2.00	3.00	3.00	2.00
		2.00	2.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00
		3.00	2.00	3.00	2.00	3.00	3.00				
26.	2.00	2.00	2.00	2.00	3.00	2.00	3.00	2.00	2.00	2.00	3.00
		3.00	3.00	2.00	3.00	3.00	3.00	2.00	3.00	2.00	3.00
		2.00	3.00	2.00	3.00	2.00	2.00				
27.	3.00	3.00	2.00	2.00	3.00	3.00	2.00	3.00	3.00	4.00	2.00
		2.00	2.00	3.00	2.00	2.00	3.00	3.00	2.00	2.00	2.00
		2.00	2.00	3.00	2.00	3.00	3.00				
28.	3.00	3.00	2.00	3.00	2.00	2.00	3.00	2.00	2.00	2.00	3.00
		3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00	3.00
		3.00	2.00	2.00	3.00	3.00	2.00				
29.	3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00	3.00	3.00
		2.00	4.00	2.00	3.00	3.00	2.00	3.00	2.00	3.00	3.00
		2.00	2.00	2.00	2.00	2.00	3.00				
30.	2.00	2.00	2.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	2.00
		3.00	3.00	3.00	2.00	3.00	2.00	2.00	3.00	2.00	2.00
		3.00	3.00	3.00	2.00	2.00	2.00				
31.	3.00	3.00	2.00	2.00	3.00	2.00	2.00	3.00	2.00	2.00	3.00
		3.00	2.00	2.00	3.00	2.00	2.00	3.00	2.00	3.00	2.00
		2.00	2.00	2.00	2.00	3.00	3.00				
32.	2.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	3.00	2.00
		2.00	3.00	3.00	2.00	3.00	3.00	3.00	3.00	2.00	3.00
		2.00	3.00	2.00	2.00	2.00	2.00				
33.	3.00	2.00	2.00	3.00	2.00	2.00	3.00	3.00	2.00	2.00	3.00
		3.00	3.00	2.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00
		3.00	3.00	3.00	2.00	3.00	5.00				
34.	2.00	2.00	2.00	3.00	2.00	3.00	2.00	2.00	3.00	3.00	3.00
		2.00	4.00	3.00	3.00	3.00	2.00	3.00	3.00	2.00	3.00
		4.00	2.00	2.00	2.00	3.00	2.00				
35.	3.00	2.00	2.00	3.00	2.00	2.00	3.00	2.00	2.00	3.00	3.00
		2.00	3.00	3.00	3.00	2.00	3.00	3.00	2.00	3.00	3.00
		3.00	3.00	3.00	3.00	2.00	3.00				
36.	2.00	2.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	2.00	2.00
		2.00	2.00	2.00	2.00	3.00	3.00	2.00	3.00	2.00	3.00
		2.00	3.00	2.00	3.00	2.00	3.00				

37.	2.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	3.00	2.00	3.00
		3.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00	2.00	2.00
		3.00	2.00	3.00	2.00	4.00	2.00				
38.	2.00	2.00	2.00	2.00	3.00	2.00	3.00	3.00	3.00	3.00	2.00
		2.00	2.00	3.00	2.00	3.00	4.00	3.00	2.00	4.00	2.00
		2.00	2.00	2.00	3.00	2.00	3.00				
39.	2.00	2.00	2.00	3.00	2.00	3.00	2.00	3.00	2.00	3.00	3.00
		3.00	3.00	2.00	3.00	2.00	2.00	3.00	3.00	2.00	3.00
		3.00	3.00	3.00	2.00	2.00	3.00				
40.	2.00	2.00	3.00	2.00	2.00	3.00	3.00	2.00	2.00	2.00	2.00
		2.00	2.00	2.00	2.00	2.00	2.00	3.00	2.00	3.00	2.00
		2.00	3.00	2.00	2.00	2.00	3.00				
41.	2.00	5.00	3.00	2.00	3.00	2.00	3.00	1.00	2.00	2.00	3.00
		3.00	3.00	3.00	2.00	2.00	3.00	2.00	2.00	2.00	3.00
		2.00	2.00	3.00	3.00	3.00	2.00				
42.	2.00	4.00	2.00	3.00	3.00	2.00	2.00	2.00	2.00	2.00	2.00
		3.00	2.00	2.00	2.00	2.00	2.00	3.00	3.00	3.00	2.00
		3.00	2.00	2.00	2.00	2.00	3.00				
43.	3.00	3.00	2.00	2.00	2.00	2.00	2.00	1.00	2.00	3.00	2.00
		2.00	1.00	4.00	2.00	2.00	2.00	2.00	3.00	2.00	2.00
		2.00	2.00	2.00	2.00	4.00	3.00				

Experimental Group's post questionnaire sores

44.	5.00	4.00	5.00	5.00	4.00	4.00	4.00	4.00	4.00	5.00	4.00
		4.00	5.00	5.00	4.00	4.00	3.00	4.00	4.00	4.00	5.00
		4.00	5.00	4.00	4.00	3.00	4.00				
45.	4.00	5.00	4.00	4.00	4.00	4.00	5.00	4.00	3.00	3.00	4.00
		3.00	4.00	5.00	4.00	3.00	5.00	3.00	3.00	4.00	3.00
		3.00	4.00	3.00	3.00	5.00	3.00				
46.	5.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
		4.00	3.00	3.00	3.00	4.00	3.00	3.00	3.00	3.00	3.00
		5.00	4.00	3.00	4.00	4.00	3.00				
47.	5.00	4.00	5.00	5.00	4.00	5.00	4.00	5.00	4.00	3.00	3.00
		3.00	4.00	3.00	4.00	3.00	5.00	4.00	3.00	3.00	3.00
		4.00	3.00	4.00	3.00	4.00	3.00				
48.	3.00	3.00	3.00	4.00	3.00	4.00	3.00	4.00	3.00	3.00	3.00
		5.00	4.00	3.00	4.00	3.00	4.00	5.00	3.00	3.00	4.00
		4.00	3.00	5.00	5.00	3.00	3.00				
49.	4.00	4.00	4.00	3.00	3.00	4.00	3.00	3.00	4.00	3.00	3.00
		4.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	3.00	3.00
		3.00	3.00	3.00	3.00	3.00	4.00				
50.	4.00	5.00	4.00	3.00	4.00	3.00	3.00	4.00	5.00	3.00	5.00
		3.00	3.00	4.00	5.00	3.00	4.00	4.00	4.00	3.00	3.00
		3.00	4.00	5.00	5.00	4.00	3.00				

51.	4.00	3.00	3.00	3.00	5.00	3.00	3.00	3.00	3.00	3.00	4.00
		3.00	3.00	3.00	4.00	3.00	3.00	4.00	3.00	5.00	4.00
		3.00	3.00	2.00	4.00	3.00	4.00				
52.	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		3.00	3.00	3.00	3.00	4.00	4.00	3.00	3.00	3.00	3.00
		4.00	4.00	5.00	3.00	3.00	4.00				
53.	4.00	4.00	3.00	3.00	3.00	4.00	3.00	5.00	3.00	3.00	3.00
		3.00	4.00	4.00	4.00	4.00	3.00	3.00	3.00	3.00	4.00
		3.00	3.00	3.00	3.00	3.00	3.00				
54.	4.00	3.00	3.00	3.00	4.00	3.00	3.00	4.00	4.00	4.00	3.00
		3.00	4.00	3.00	3.00	3.00	4.00	3.00	3.00	4.00	3.00
		3.00	3.00	3.00	3.00	3.00	4.00				
55.	4.00	4.00	4.00	4.00	4.00	4.00	3.00	3.00	4.00	3.00	4.00
		3.00	4.00	4.00	3.00	4.00	5.00	4.00	4.00	3.00	4.00
		4.00	3.00	4.00	3.00	4.00	4.00				
56.	3.00	3.00	4.00	4.00	3.00	3.00	4.00	5.00	4.00	3.00	3.00
		4.00	3.00	3.00	4.00	3.00	3.00	5.00	5.00	3.00	3.00
		3.00	5.00	3.00	5.00	3.00	5.00				
57.	4.00	3.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00
		4.00	3.00	3.00	4.00	4.00	4.00	3.00	4.00	4.00	4.00
		4.00	4.00	3.00	4.00	4.00	4.00				
58.	3.00	3.00	3.00	4.00	4.00	3.00	3.00	3.00	3.00	5.00	3.00
		3.00	3.00	4.00	3.00	4.00	4.00	4.00	3.00	2.00	3.00
		3.00	4.00	3.00	3.00	3.00	2.00				
59.	5.00	4.00	4.00	3.00	4.00	3.00	3.00	4.00	5.00	5.00	4.00
		3.00	4.00	3.00	4.00	3.00	3.00	4.00	3.00	3.00	3.00
		4.00	5.00	4.00	3.00	3.00	3.00				
60.	4.00	5.00	5.00	3.00	4.00	4.00	3.00	3.00	4.00	3.00	3.00
		3.00	3.00	4.00	3.00	4.00	4.00	3.00	3.00	3.00	4.00
		3.00	3.00	3.00	4.00	3.00	3.00				
61.	4.00	3.00	3.00	3.00	4.00	3.00	4.00	3.00	3.00	4.00	3.00
		4.00	5.00	3.00	4.00	3.00	3.00	4.00	3.00	3.00	4.00
		4.00	4.00	3.00	3.00	3.00	3.00				
62.	4.00	4.00	4.00	4.00	3.00	4.00	3.00	3.00	4.00	3.00	4.00
		3.00	4.00	3.00	3.00	4.00	3.00	4.00	5.00	3.00	3.00
		3.00	5.00	4.00	3.00	4.00	3.00				
63.	4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	3.00	4.00
		3.00	3.00	3.00	3.00	3.00	3.00				
64.	3.00	4.00	4.00	3.00	4.00	4.00	3.00	4.00	3.00	3.00	3.00
		4.00	3.00	3.00	3.00	3.00	3.00	4.00	3.00	4.00	4.00
		3.00	3.00	4.00	4.00	3.00	3.00				

65.	4.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	3.00	4.00	3.00
		4.00	3.00	4.00	4.00	4.00	4.00	3.00	3.00	4.00	3.00
		4.00	2.00	3.00	3.00	4.00	4.00				
66.	4.00	4.00	4.00	3.00	4.00	3.00	3.00	3.00	3.00	4.00	3.00
		3.00	3.00	3.00	4.00	4.00	4.00	3.00	4.00	4.00	3.00
		3.00	4.00	3.00	2.00	3.00	3.00				
67.	5.00	4.00	4.00	4.00	5.00	3.00	3.00	4.00	3.00	3.00	4.00
		3.00	3.00	4.00	3.00	3.00	3.00	4.00	3.00	3.00	3.00
		5.00	3.00	4.00	3.00	5.00	3.00				
68.	4.00	3.00	4.00	3.00	3.00	4.00	3.00	5.00	3.00	3.00	3.00
		4.00	3.00	3.00	4.00	4.00	4.00	3.00	3.00	5.00	4.00
		5.00	5.00	3.00	4.00	4.00	5.00				
69.	4.00	4.00	4.00	3.00	4.00	3.00	3.00	3.00	3.00	4.00	4.00
		3.00	3.00	4.00	3.00	3.00	3.00	3.00	4.00	4.00	5.00
		3.00	3.00	4.00	5.00	5.00	4.00				
70.	5.00	5.00	4.00	4.00	5.00	3.00	3.00	4.00	5.00	4.00	3.00
		4.00	4.00	3.00	3.00	4.00	3.00	3.00	3.00	3.00	4.00
		4.00	4.00	3.00	3.00	3.00	4.00				
71.	5.00	5.00	4.00	4.00	4.00	3.00	4.00	3.00	3.00	3.00	4.00
		4.00	4.00	3.00	4.00	3.00	3.00	3.00	5.00	4.00	3.00
		5.00	3.00	3.00	4.00	3.00	4.00				
72.	3.00	4.00	4.00	5.00	3.00	5.00	3.00	5.00	3.00	5.00	3.00
		4.00	3.00	3.00	5.00	3.00	3.00	3.00	3.00	3.00	3.00
		3.00	3.00	3.00	3.00	2.00	3.00				
73.	4.00	3.00	4.00	4.00	4.00	3.00	3.00	3.00	3.00	4.00	3.00
		3.00	4.00	3.00	3.00	3.00	3.00	4.00	3.00	4.00	3.00
		3.00	4.00	3.00	4.00	3.00	3.00				
74.	4.00	3.00	3.00	3.00	3.00	3.00	5.00	3.00	2.00	5.00	4.00
		3.00	3.00	4.00	4.00	4.00	3.00	3.00	3.00	5.00	4.00
		4.00	3.00	3.00	3.00	3.00	4.00				
75.	4.00	4.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
		3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	3.00	3.00
		3.00	5.00	4.00	3.00	3.00	4.00				
76.	4.00	3.00	3.00	4.00	4.00	4.00	4.00	3.00	3.00	3.00	3.00
		3.00	3.00	3.00	3.00	4.00	3.00	3.00	4.00	3.00	4.00
		3.00	3.00	3.00	4.00	5.00	4.00				
77.	4.00	3.00	3.00	3.00	5.00	3.00	3.00	3.00	3.00	3.00	3.00
		3.00	5.00	3.00	4.00	3.00	3.00	3.00	3.00	4.00	4.00
		5.00	5.00	3.00	5.00	3.00	3.00				
78.	4.00	4.00	3.00	2.00	5.00	5.00	4.00	3.00	4.00	4.00	2.00
		3.00	3.00	3.00	4.00	3.00	4.00	4.00	3.00	3.00	3.00
		3.00	3.00	4.00	3.00	3.00	3.00				

79.	4.00	3.00	3.00	3.00	3.00	3.00	4.00	4.00	3.00	3.00	5.00
		3.00	5.00	5.00	3.00	4.00	3.00	3.00	3.00	5.00	3.00
		3.00	5.00	4.00	4.00	3.00	3.00				
80.	4.00	3.00	4.00	3.00	4.00	4.00	5.00	3.00	4.00	4.00	5.00
		3.00	3.00	4.00	5.00	3.00	3.00	4.00	4.00	3.00	3.00
		3.00	4.00	3.00	3.00	4.00	3.00				
81.	5.00	5.00	3.00	3.00	3.00	3.00	4.00	3.00	3.00	4.00	2.00
		3.00	3.00	3.00	4.00	3.00	4.00	3.00	3.00	4.00	4.00
		4.00	3.00	4.00	4.00	3.00	3.00				
82.	4.00	3.00	3.00	4.00	4.00	3.00	3.00	4.00	3.00	3.00	3.00
		4.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	4.00	3.00
		3.00	5.00	3.00	4.00	3.00	5.00				
83.	3.00	4.00	3.00	3.00	4.00	4.00	3.00	5.00	3.00	3.00	3.00
		4.00	3.00	3.00	4.00	3.00	3.00	3.00	4.00	4.00	3.00
		3.00	3.00	3.00	3.00	2.00	4.00				
84.	3.00	3.00	4.00	4.00	3.00	4.00	3.00	4.00	4.00	4.00	4.00
		4.00	4.00	4.00	3.00	3.00	4.00	3.00	3.00	4.00	3.00
		2.00	4.00	4.00	3.00	4.00	3.00				
85.	4.00	3.00	3.00	3.00	4.00	4.00	3.00	3.00	3.00	3.00	3.00
		3.00	3.00	4.00	3.00	4.00	4.00	4.00	3.00	3.00	5.00
		4.00	3.00	4.00	4.00	4.00	3.00				
86.	4.00	4.00	3.00	3.00	4.00	3.00	4.00	5.00	3.00	5.00	5.00
		5.00	3.00	3.00	4.00	3.00	5.00	5.00	4.00	3.00	4.00
		3.00	4.00	5.00	4.00	3.00	3.00				
87.	4.00	3.00	3.00	4.00	4.00	3.00	4.00	3.00	4.00	3.00	3.00
		4.00	4.00	4.00	4.00	3.00	4.00	3.00	4.00	4.00	3.00
		4.00	3.00	4.00	4.00	3.00	3.00				

