

COLLEGE OF EDUCATION AND LANGUAGES STUDIES

DEPARTMENT OF FOREIGN LANGUAGES AND LITERATURE

THE EFFECTS OF COGNITIVE READING STRATEGIES ON FRESHMAN STUDENTS' READING COMPREHENSION, SELF-EFFICACY, MOTIVATION AND PERCEPTIONS: THE CASE OF ADDIS ABABA UNIVERSITY

BY

WORKU SEYOUM

Addis Ababa University

JUNE, 2026

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WORKU SEYOUM

MENDIDA BERKESSA (PhD)

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Investigating the Effects of Cognitive Reading Strategies on Freshman Students' Reading Comprehension, Reading Self-Efficacy and Motivation

Worku Seyoum

A Dissertation submitted to the Department of Foreign Languages and Literature in Fulfilment of the Degree of Philosophy in English Language Teaching

Approved by the Board of Examiners

Advisor: _____ signature: _____ Date: _____

Internal Examiner: Mehrafu M. signature: [signature] Date: 23/06/26

External Examiner: Abiy Y. (PhD) signature: [signature] Date: 23/06/26

Declaration

I, the undersigned, hereby declare that this dissertation is my original work and that all the sources of materials used in the dissertation have been properly acknowledged.

Name: worku Seyoum

Signature:_____

Addis Ababa University

Date of submission- March, 2026

Abstract

This study aimed to examine the effect of direct instruction in cognitive reading strategies on students' reading comprehension, reading self-efficacy, reading motivation, and perceptions. A mixed-methods research design, incorporating both quantitative and qualitative approaches, was employed. The participants consisted of 94 first-year students who were selected using intact class groups. Of these, 48 students formed the experimental group and received direct instruction in cognitive reading strategies, while the remaining students constituted the control group and were taught using conventional instructional methods. For the qualitative phase, interview participants were selected through random sampling to obtain representative views and experiences regarding the intervention. Data were collected using a reading comprehension test, reading self-efficacy questionnaire, reading motivation questionnaire, and semi-structured interviews. Pre-tests and questionnaires were administered to both groups before the intervention, and post-tests were conducted after the intervention period. Mann–Whitney U test results revealed a statistically significant difference in reading comprehension between the experimental and control groups in favor of the experimental group, indicating that students who received cognitive reading strategy instruction demonstrated greater improvement. Wilcoxon Signed-Rank tests further showed significant within-group changes, particularly in the experimental group. Questionnaire analyses indicated that the intervention had a meaningful but modest positive effect on both reading motivation and self-efficacy. Qualitative interview data supported these findings, revealing that students held positive perceptions toward cognitive reading strategies and reported improved awareness of how to approach reading tasks. Overall, the integration of quantitative and qualitative data triangulated the findings, confirming that cognitive reading strategy instruction enhances reading comprehension while also contributing, to a lesser extent, to improvements in motivation and self-efficacy. Therefore, it is recommended that teachers systematically integrate cognitive reading strategies into instruction to strengthen both cognitive and affective dimensions of reading development

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Abbreviations and Acronyms

CALLA: Cognitive Academic Language Learning Approach

CRS: Cognitive Reading Strategies

CSR: Collaborative Strategic Reading

Df: Degrees of Freedom

E.C: Ethiopian Calendar

EFL: English as Foreign Language

LLS: Language Learning Strategies

MOE: Ministry of Education

N: Number

R: Respondent (For instance, R1 means respondent one)

RCT: Reading Comprehension Tests

REAP: Read, Encode, Annotate, and Ponder

SD: Standard Deviation

SILL: Strategy, Inventory, Language Learning

SORS: Survey of Reading Strategies

TOEFL iBT-Test of English as a Foreign Language Internet Based Test

Chapter One: Introduction

1.1 Background of the Study

Education in the twenty-first century is characterized by rapid globalization, technological advancement, and the increasing need for learners to develop higher-order thinking skills, communication abilities, and lifelong learning competencies. Modern educational systems emphasize student-centered learning, critical thinking, collaboration, problem-solving, and the effective use of information and communication technologies (UNESCO, 2015). Within this global context, proficiency in international languages, particularly English, has become increasingly important because it enables learners to access scientific knowledge, participate in global communication, and compete in international academic and professional environments (Crystal, 2003).

In many countries, English has become the dominant language of science, technology, business, and higher education (Crystal, 2003). Consequently, educational reforms around the world have increasingly integrated English into school curricula and promoted its use as a medium of instruction at different educational levels (UNESCO, 2015). Ethiopia has also aligned its educational system with these global trends by recognizing English as a key language for academic advancement and international engagement.

The history of modern education in Ethiopia dates back to the early twentieth century with the establishment of modern schools during the reign of Emperor Menelik II (Pankhurst, 1968). Since then, English has occupied a significant place in the Ethiopian education system. According to Berkessa (2001), English has long served both as a subject of study and as a medium of instruction in formal education. Recent educational reforms have further strengthened its role in the school system. The current Ethiopian Education and Training Policy and subsequent curriculum reforms stipulate that English is taught as a subject from Grade 1 and serves as the medium of instruction beginning from Grade 5 in many regional states and throughout secondary and higher education (Ministry of Education [MoE], 2020; MoE, 2021). The introduction of English as a medium of instruction from Grade 5 aims to prepare students for the academic demands of secondary and tertiary education, where English is the primary

language of teaching and learning. Consequently, students are expected to develop adequate English proficiency from the upper primary level onward to successfully engage with academic content and participate effectively in educational activities.

Among the four fundamental language skills—listening, speaking, reading, and writing—reading is often regarded as the most crucial, particularly in academic contexts (Grabe & Stoller, 2011). This is because reading serves as the primary means through which students access knowledge and acquire information in both English and other subject areas. Through reading, learners engage with ideas presented by authors from different times, cultures, and disciplines, thereby expanding their perspectives and deepening their understanding of the world (Teixeira, 2014). In the Ethiopian context, where English is the medium of instruction from Grade 5 onward and throughout secondary schools and higher education institutions, students are required to read and comprehend a wide range of academic texts in subjects such as History, Geography, Biology, Physics, Citizenship, Psychology, Agriculture, and Economics (Getachew et al., 2018; Kebede, 2024). Therefore, reading proficiency is essential not only for learning English as a subject but also for achieving overall academic success.

Reading, however, is not a simple or mechanical activity; rather, it is a complex and multifaceted process. It involves not only decoding written symbols but also constructing meaning, integrating new information with prior knowledge, and engaging in higher-order thinking processes (Nunan, 1998; Grabe & Stoller, 2011). While early views of reading emphasized decoding as the primary component, more recent perspectives highlight the interactive and cognitive nature of reading. For instance, Herath (2010) argues that reading goes beyond word recognition and fluency to include deep engagement with the text, where readers become actively involved, interested, and immersed in the content. Similarly, Grabe (2009) explains that good reading involves coordinating several mental processes. Skilled readers actively predict what might come next, summarize key points, make inferences, and constantly monitor their understanding as they read. In other words, reading is a dynamic process where the mind works alongside the text to create meaning.

Given the complexity of reading, learners need to employ various strategies to comprehend texts effectively. Reading strategies are deliberate, goal-oriented actions that readers use to facilitate

understanding and overcome difficulties encountered during reading (Par, 2020). Strategic readers are characterized by their ability to use prior knowledge, monitor their comprehension, and adjust their reading approaches based on the purpose, difficulty, and nature of the text (Wood & Connelly, 2009). They do not passively receive information; rather, they actively construct meaning by interacting with the text. The recognition of reading as an active process of meaning construction brought a major shift in language teaching and learning during the late twentieth century. Earlier approaches to language instruction, particularly grammar-translation methods, assumed that reading comprehension would develop automatically once learners mastered vocabulary and grammatical structures. However, developments in cognitive psychology and second-language acquisition research demonstrated that successful readers do much more than decode words; they consciously employ strategies to construct meaning, solve comprehension problems, and regulate their understanding while reading (Carrell et al., 1989; Pressley, 2002; Grabe, 2009). Consequently, reading strategy instruction emerged as an important component of English language teaching, particularly in English as a Foreign Language (EFL) contexts where learners have limited exposure to English outside the classroom and rely heavily on reading as a primary source of language input and academic knowledge (Grabe & Stoller, 2011; Gu, 2019).

Research has consistently shown that the use of appropriate reading strategies significantly enhances comprehension. As a result, the explicit teaching of reading strategies has become an important focus in language education. Explicit strategy instruction involves not only introducing students to different strategies but also explaining how, when, and why these strategies should be used. It includes developing learners' declarative knowledge (what the strategy is), procedural knowledge (how to use it), and conditional knowledge (when and why to apply it) (Chinpakdee, 2021). Empirical studies such as those conducted by Salataci and Akyel (2002), Zhang (2008), and Aghaie and Zhang (2012) have demonstrated that strategy-based instruction can significantly improve students' reading comprehension and metacognitive awareness.

Among the various types of reading strategies, cognitive reading strategies are particularly important because they directly involve the mental processes used in understanding texts and actively engage learners in constructing meaning, interpreting information, and understanding texts in depth (Barnett, 2002; Grabe, 2009). These strategies include predicting, summarizing,

inferring, analyzing, elaborating, and organizing information, all of which enable learners to actively process and make sense of textual content (Grabe, 2009; Zhang, 2008). Cognitive strategies involve both top-down processing, where readers draw on background knowledge, prior experiences, and expectations to interpret texts, and bottom-up processing, where attention is focused on linguistic elements such as vocabulary, syntax, and sentence structure (Aghaie & Zhang, 2012). Effective reading typically requires a dynamic interplay between these processes, allowing learners to construct meaning flexibly and adaptively. Unlike metacognitive strategies, which are primarily concerned with planning, monitoring, and evaluating learning, or social strategies, which rely on interaction with others, cognitive strategies directly facilitate the processing, transformation, and integration of textual information (O'Malley & Chamot, 1990; Oxford, 2011). Furthermore, they are highly teachable and transferable across different academic disciplines, making them particularly suitable for university students who are required to comprehend complex texts in various subject areas (Pressley, 2002; Afflerbach et al., 2008). In the Ethiopian EFL context, where many students struggle to move beyond surface-level understanding and often rely on rote memorization, cognitive reading strategies provide practical tools that help learners become active, strategic, and independent readers (Bogale, 2018; Getachew et al., 2018). Their direct relationship with comprehension processes, their applicability to a wide range of academic texts, and their potential to promote learner autonomy provide a strong rationale for selecting cognitive reading strategies as the focus of the present study.

Despite the recognized importance of reading strategies, several studies conducted in the Ethiopian context indicate that these strategies are not adequately taught in classrooms. Researchers such as Bogale (2018), Ermias (2019), and Getnet (2021) have reported that English language teachers often focus on traditional methods of instruction and give limited attention to strategy instruction. Personal observations and teaching experiences also suggest that many students are not guided on how to apply reading strategies effectively, which may contribute to their difficulties in comprehending texts. As a result, students may struggle to meet the academic demands placed upon them, particularly in higher education where independent reading is essential.

The importance of cognitive reading strategies extends beyond cognitive development alone because successful strategy use can also influence important affective aspects of learning. Contemporary theories of reading increasingly emphasize that cognitive and affective factors are closely interconnected and mutually reinforcing (Bandura, 1997; Guthrie et al., 2004). In this regard, reading motivation and reading self-efficacy have emerged as two of the most influential variables affecting students' engagement and achievement in reading. Reading motivation refers to the reasons that encourage learners to engage in reading activities, persist in difficult tasks, and invest effort in comprehending texts. It includes both intrinsic factors, such as curiosity, enjoyment, and interest in reading, and extrinsic factors, such as grades, rewards, and academic expectations (Guthrie & Wigfield, 2000; Wigfield & Guthrie, 1997). Research has shown that motivated readers spend more time reading, employ a greater variety of strategies, and demonstrate higher levels of persistence when confronted with challenging texts (Guthrie et al., 2004; Schiefele et al., 2012). Conversely, students with low motivation often avoid reading tasks, engage only superficially with texts, and give up easily when they encounter difficulties.

Similarly, reading self-efficacy refers to learners' beliefs about their capability to perform reading tasks successfully and overcome reading-related challenges (Bandura, 1986, 1997). Students with strong self-efficacy are more likely to approach reading tasks with confidence, set challenging goals, persist in the face of difficulties, and use reading strategies effectively, whereas those with low self-efficacy often experience anxiety, underestimate their abilities, and avoid demanding reading tasks (Pajares, 2003; Schunk & Zimmerman, 2007). Self-efficacy therefore influences not only actual performance but also the effort learners expend, the strategies they employ, and the persistence they demonstrate during reading activities (Bandura, 1997). Moreover, successful experiences in using cognitive reading strategies may strengthen learners' confidence and motivation by enabling them to experience greater control over the reading process and achieve better comprehension outcomes (Guthrie & Klauda, 2014). Consequently, effective reading instruction is increasingly viewed not merely as the development of comprehension skills but also as a means of fostering students' confidence, motivation, and positive engagement with reading activities.

Because cognitive and affective factors jointly influence reading development, it is equally important to understand how learners perceive strategy instruction, as students' perceptions often

determine whether they are willing to adopt and apply the strategies they learn. In addition to examining instructional effectiveness, it is important to consider students' perceptions of reading strategy training. Learners' perceptions influence how they engage with instructional practices and whether they are willing to apply the strategies they learn. Studies have shown that students who perceive strategy instruction as useful and relevant are more likely to use strategies effectively and achieve better learning outcomes (Gu, 2019; Chinpakdee, 2021). Similarly, Zhang (2008) and Aghaie and Zhang (2012) found that positive learner perceptions are associated with increased strategy use and improved comprehension. These findings suggest that students' attitudes and beliefs play a mediating role in the success of instructional interventions.

However, in many Ethiopian studies, little attention has been given to students' perceptions of reading strategy instruction. Most research has focused primarily on test performance, often overlooking how learners experience and interpret the instructional process (Dawit, 2014; Alene, 2021; Yenus, 2018). Investigating students' perceptions is therefore essential for understanding the effectiveness of strategy instruction from the learners' perspective and for identifying potential gaps between instructional intentions and actual learning experiences (Gu, 2019; Chinpakdee, 2021). Learners' attitudes, beliefs, and perceived usefulness of strategies can significantly influence their engagement, adoption, and application of cognitive reading strategies, highlighting the importance of capturing their perspectives.

Given the importance of both cognitive and affective factors in reading, as well as the need to understand learners' experiences and classroom practices, it is essential to examine how cognitive reading strategy instruction influences not only students' reading comprehension but also their motivation, self-efficacy, and perceptions. Such an investigation is particularly relevant in the Ethiopian higher education context, where English proficiency is a key requirement for academic success and where students rely heavily on reading to access knowledge (MoE, 2020). Therefore, this study seeks to provide a comprehensive understanding of the role of cognitive reading strategies in enhancing students' reading development. By doing so, it aims to contribute to improving instructional practices and supporting learners in becoming more effective, strategic, motivated, and confident readers.

1.2 Statement of the Problems

Despite the central role of English as a medium of instruction in Ethiopian secondary schools and higher education institutions, many students continue to face serious challenges in reading comprehension, resulting in poor academic performance, limited classroom participation, and difficulties in accessing knowledge across disciplines. Since English is the principal language through which knowledge is accessed and communicated in most academic subjects, inadequate reading ability has significant implications for students' academic success and overall educational achievement. These difficulties significantly affect students' performance in subjects such as History, Geography, Civics, Psychology, Agriculture, and Economics (Bogale, 2018; Getachew et al., 2018; Kebede, 2024). Reports from the Ministry of Education indicate that students' overall English proficiency, particularly in reading, remains low, with many learners failing to develop adequate reading skills even after completing primary and secondary education (MoE, 2020). Similarly, studies by Eshetie (2010), Abiy (2012), and Niguse (2013) reveal that a considerable number of Ethiopian students lack essential and critical reading abilities, including identifying main ideas, making inferences, evaluating information critically, and constructing meaning from texts. More recent studies continue to demonstrate that reading comprehension remains a major challenge among EFL learners at different educational levels. For instance, Getachew and Abiy (2022) found that many university students experience difficulties in identifying main ideas, making inferences, and critically interpreting academic texts due to inadequate use of reading strategies and limited vocabulary knowledge. Likewise, Tadesse and Mulu (2022) reported that secondary school students demonstrated low levels of strategic reading awareness and relied heavily on word-by-word reading approaches, which negatively affected their comprehension performance. These findings suggest that reading comprehension difficulties are not isolated incidents but rather constitute a persistent and widespread educational problem that continues to undermine students' academic development and success in Ethiopian educational settings.

These challenges are further compounded by affective factors such as low motivation and limited self-efficacy. Research has consistently shown that affective variables play a significant role in shaping students' engagement, persistence, strategy use, and achievement in language learning (Guthrie & Wigfield, 2000; Dörnyei, 2005). Students who lack confidence in their reading

abilities are less likely to engage actively with texts, employ effective reading strategies, or persist when faced with comprehension difficulties (Wang, 2011). Instead, they tend to avoid challenging reading tasks, rely on surface-level processing and word-by-word reading, and demonstrate limited willingness to invest effort in constructing meaning from texts. In the Ethiopian context, Fekadu (2023) found that first-year university students exhibited low reading motivation and self-efficacy, factors that significantly predicted poor academic achievement in English courses. Likewise, Kebede and Alemayehu (2024) reported that many learners lacked confidence in their reading abilities and demonstrated low levels of engagement with academic texts, while many students also lacked metacognitive awareness and experienced difficulties in monitoring and regulating their comprehension processes. Classroom observations and informal discussions with instructors at Addis Ababa University similarly suggest that many first-year students experience difficulty in understanding academic texts and often perform poorly in reading-related tasks. These findings imply that students' reading difficulties cannot be attributed solely to cognitive deficiencies but are also closely linked to affective characteristics that shape learners' engagement with reading.

A number of factors contribute to these persistent challenges. These include limited exposure to English, inadequate instructional materials, and insufficient emphasis on teaching reading strategies (Gashaye & Alem, 2019). In many classrooms, instruction is still dominated by traditional practices that focus primarily on answering comprehension questions, memorizing information, and translating texts rather than explicitly teaching students how to read strategically. Several studies conducted in Ethiopia support this claim. For instance, Haregewein (2008) reported that reading lessons in many secondary schools were largely teacher-centered and emphasized the completion of textbook exercises rather than the development of strategic reading skills. Similarly, Gashaye and Alem (2019) found that teachers frequently focused on vocabulary explanation and comprehension questions while giving little attention to explicit strategy instruction. More recently, Gebremedhin and Desta (2023) revealed that although teachers recognized the importance of reading strategies, explicit instruction and classroom modeling of these strategies were rarely practiced in Ethiopian EFL classrooms. Likewise, Kebede and Alemayehu (2024) reported that classroom practices continued to emphasize product-oriented approaches to reading, with limited opportunities for students to engage in

strategic, interactive, and meaning-making processes. Consequently, students are rarely guided on how to use cognitive reading strategies such as predicting, summarizing, questioning, inferencing, and identifying key ideas, which are essential for constructing meaning from texts and promoting deeper comprehension (Grabe, 2009; Aghaie & Zhang, 2012).

Previous studies have attempted to address these issues by examining the effects of reading strategy instruction. For example, Dawit (2014) reported that explicit strategy instruction significantly improved university students' reading comprehension. Similarly, Alene (2021) found positive effects of metacognitive strategy instruction on comprehension outcomes. However, these studies primarily focused on cognitive outcomes and gave limited attention to affective variables such as motivation and self-efficacy, despite substantial evidence that these variables play a crucial role in students' engagement, persistence, strategy use, and academic achievement (Guthrie & Wigfield, 2000; Dörnyei, 2005). Furthermore, previous studies have not sufficiently focused on cognitive reading strategies themselves. Although several studies investigated reading strategy instruction in general, they often treated strategies as a broad construct without specifically examining the contribution of cognitive strategies such as predicting, summarizing, questioning, inferencing, and identifying main ideas, which are directly involved in text processing and meaning construction (Grabe, 2009; Aghaie & Zhang, 2012). As a result, it remains unclear whether explicit instruction in cognitive reading strategies can simultaneously improve reading comprehension and foster students' motivational beliefs and confidence in reading.

Methodologically, the existing body of research also exhibits several weaknesses. Most studies relied heavily on reading tests and questionnaires and did not incorporate learners' perceptions or other sources of evidence, such as classroom observations and interviews, that could provide a more comprehensive understanding of the instructional process and its effects. For example, Dawit (2014) and Alene (2021) reported positive effects of strategy instruction but employed limited data sources and focused mainly on post-intervention achievement outcomes. Similarly, Getachew and Abiy (2022) and Kebede and Alemayehu (2024) documented students' reading difficulties and inadequate strategy use but did not experimentally investigate how cognitive strategy instruction might influence both cognitive and affective outcomes. Consequently, the

processes through which strategy instruction affects learners' reading behavior, engagement, and perceptions remain insufficiently understood.

Moreover, findings from previous studies remain inconsistent and inconclusive. Yenus (2018), in the study entitled Effects of Reading Strategy Instruction on EFL Students' Reading Comprehension in Ethiopian Secondary Schools, employed a quasi-experimental design using reading comprehension tests and strategy-use questionnaires as instruments. The findings revealed no statistically significant difference between implicit and explicit strategy instruction groups, suggesting that instructional approach alone may not determine effectiveness. However, the study was limited by its short intervention period, lack of focus on affective variables, and absence of follow-up assessments to determine the sustainability of the intervention effects. Similarly, Adugnaw (2024), in The Impact of Cognitive Reading Strategy Training on EFL Learners' Comprehension Skills, used pre- and post-tests along with observation checklists over a twelve-week intervention. Although slight improvements were observed, the results were statistically insignificant, possibly due to limited duration, insufficient reinforcement of strategies, the relatively small sample used in the study, and the absence of evidence regarding students' motivational characteristics.

Even studies that reported positive outcomes reveal important gaps. Tesfaye and Assefa (2024) found that students who received explicit cognitive strategy instruction demonstrated better reading comprehension performance and greater confidence in reading tasks than those taught through conventional methods. Nevertheless, improvements in motivation and self-efficacy were relatively modest, suggesting that cognitive gains do not automatically translate into affective development and raising important questions regarding the conditions under which cognitive strategy instruction may influence students' motivational and self-belief systems.

International research presents a similarly mixed picture. Andreassen and Bråten (2010) reported significant improvements in students' strategic reading abilities and comprehension performance; however, their study focused primarily on cognitive outcomes and did not address motivational aspects of reading. Likewise, Dabarera et al. (2014) demonstrated positive effects of strategy instruction on comprehension and strategy awareness but did not examine the long-term sustainability of these gains. In contrast, Antoniou and Souvignier (2007) found only limited

improvements in students' motivation and self-efficacy despite gains in reading achievement, suggesting that cognitive and affective development may not occur simultaneously. Similarly, Shinozuka et al. (2017) revealed that immediate effects on motivation and self-efficacy were minimal and that outcomes varied according to instructional implementation and contextual conditions. Collectively, these studies indicate that the effectiveness of reading strategy instruction is influenced by numerous factors, including instructional design, duration of intervention, learner characteristics, and contextual variables.

A critical review of the literature therefore reveals several important research gaps. First, there is a scarcity of studies that simultaneously investigate the effects of cognitive reading strategy instruction on both cognitive outcomes, particularly reading comprehension, and affective outcomes, including motivation and self-efficacy. Second, there is limited empirical evidence concerning the specific contribution of cognitive reading strategies to students' reading development in Ethiopian university contexts. Third, previous studies have rarely incorporated students' perceptions of strategy instruction, despite evidence that learners' attitudes and experiences significantly influence the effectiveness and sustainability of instructional interventions (Gu, 2019; Chinpakdee, 2021). Finally, methodological limitations, including short intervention periods, small sample sizes, overreliance on tests and questionnaires, lack of triangulated data, and absence of follow-up assessments, have restricted the depth, validity, and generalizability of previous findings.

Consequently, there remains insufficient and inconclusive evidence regarding the extent to which cognitive reading strategy instruction can simultaneously improve reading comprehension, motivation, self-efficacy, and students' perceptions within the Ethiopian university context. Addressing these gaps is essential not only for advancing theoretical understanding of the relationship between cognitive and affective dimensions of reading but also for informing the development of more effective and learner-centered instructional practices in Ethiopian EFL classrooms.

1.3 Research objectives

1.3.1 General objective

This study investigated the effects of cognitive reading strategy instruction on students' reading comprehension, reading self-efficacy, motivation and perceptions at Addis Ababa University, Ethiopia.

1.3.2 Specific Objectives

More specifically, this research was intended:

- To assess the effects of cognitive reading strategy training on the reading comprehension of AAU Freshman students
- To investigate the effects of cognitive reading strategy instruction on students' reading self-efficacy
- To investigate the effects of cognitive reading strategy instruction on students' reading motivation
- To explore the perceptions of AAU Freshman students about the effects of cognitive reading strategies on their reading comprehension, motivation and self -efficacy

1.4 Research Hypotheses

Based on the objectives of the study, the following null and alternative hypotheses were formulated:

Hypothesis 1: Reading Comprehension

Within-Group Hypotheses

$H0_1a$: There is no statistically significant difference between the pre-test and post-test reading comprehension scores of the experimental group.

Ha_1a: There is a statistically significant difference between the pre-test and post-test reading comprehension scores of the experimental group.

$H0_1b$: There is no statistically significant difference between the pre-test and post-test reading comprehension scores of the control group.

Ha_1b: There is a statistically significant difference between the pre-test and post-test reading comprehension scores of the control group.

Between-Group Hypotheses

$H0_1c$: There is no statistically significant difference in post-test reading comprehension scores between the experimental group that receives cognitive reading strategy instruction and the control group that receives conventional instruction.

Ha_1c: There is a statistically significant difference in post-test reading comprehension scores between the experimental group that receives cognitive reading strategy instruction and the control group that receives conventional instruction.

Hypothesis 2: Reading Self-Efficacy

Within-Group Hypotheses

$H0_2a$: There is no statistically significant difference between the pre-test and post-test reading self-efficacy scores of the experimental group.

Ha_2a: There is a statistically significant difference between the pre-test and post-test reading self-efficacy scores of the experimental group.

$H0_2b$: There is no statistically significant difference between the pre-test and post-test reading self-efficacy scores of the control group.

Ha_2b: There is a statistically significant difference between the pre-test and post-test reading self-efficacy scores of the control group.

Between-Group Hypotheses

$H0_2c$: There is no statistically significant difference in post-test reading self-efficacy scores between the experimental group that receives cognitive reading strategy instruction and the control group that receives conventional instruction.

Ha_2c: There is a statistically significant difference in post-test reading self-efficacy scores between the experimental group that receives cognitive reading strategy instruction and the control group that receives conventional instruction.

Hypothesis 3: Reading Motivation

Within-Group Hypotheses

$H0_3a$: There is no statistically significant difference between the pre-test and post-test reading motivation scores of the experimental group.

Ha_3a: There is a statistically significant difference between the pre-test and post-test reading motivation scores of the experimental group.

$H0_3b$: There is no statistically significant difference between the pre-test and post-test reading motivation scores of the control group.

Ha_3b: There is a statistically significant difference between the pre-test and post-test reading motivation scores of the control group.

Between-Group Hypotheses

$H0_3c$: There is no statistically significant difference in post-test reading motivation scores between the experimental group that receives cognitive reading strategy instruction and the control group that receives conventional instruction.

Ha_3c: There is a statistically significant difference in post-test reading motivation scores between the experimental group that receives cognitive reading strategy instruction and the control group that receives conventional instruction.

1.5 Significance of the Study

The primary objective of this study was to enhance the reading comprehension skills of English language (EL) students by examining the impact of teaching cognitive reading strategies. Specifically, the study investigates how explicit instruction in strategies such as prediction, summarization, inference, and comprehension monitoring can improve students' ability to understand academic texts. In addition, the study emphasizes the role of reading self-efficacy and motivation as key psychological factors that influence students' reading performance. The findings of this research are expected to contribute significantly to students, teachers, and curriculum developers.

This study is particularly important for students as it fosters the development of independent, motivated, and confident readers. Training learners in cognitive reading strategies enhances their ability to regulate their own learning, which is essential for autonomous learning. Beyond strategy use, the study also addresses reading self-efficacy, defined as learners' beliefs in their capability to successfully perform reading tasks. When students are equipped with effective strategies, they are more likely to experience success in reading, which in turn strengthens their self-efficacy beliefs. Higher self-efficacy encourages persistence, resilience, and willingness to engage with challenging texts.

Moreover, the study contributes to improving students' reading motivation, which plays a crucial role in sustaining engagement with reading activities. Motivated readers are more likely to invest effort, use strategies actively, and read more frequently. By making reading more manageable and meaningful through cognitive strategies, students may develop both intrinsic motivation (reading for interest and enjoyment) and extrinsic motivation (reading for academic success). Consequently, the findings of this study can help students overcome common barriers such as lack of interest, low confidence, and poor comprehension, ultimately leading to improved academic achievement.

The study is expected to provide valuable insights for English language teachers by emphasizing the importance of integrating cognitive, motivational, and affective dimensions into reading instruction. It encourages teachers to reflect critically on their instructional practices and to move

beyond traditional approaches toward more interactive and strategy-based teaching methods. By explicitly teaching cognitive reading strategies, teachers can help students become active participants in the reading process.

In addition, the study highlights the teacher's role in fostering students' self-efficacy and motivation. Teachers can enhance self-efficacy by providing appropriate scaffolding, constructive feedback, and opportunities for successful reading experiences. Similarly, they can promote motivation by selecting engaging texts, setting meaningful goals, and creating a supportive classroom environment. The findings of this study will therefore guide teachers in designing instruction that not only improves comprehension but also builds students' confidence and interest in reading.

The findings of this research have important implications for curriculum designers and textbook developers. They underscore the need to incorporate cognitive reading strategies systematically into English language curricula at the university level. In addition, the study highlights the importance of integrating activities that promote reading self-efficacy and motivation, rather than focusing solely on linguistic content.

Material developers can use the results to design materials that encourage active engagement, strategic thinking, and learner autonomy. For instance, reading tasks can be structured to include goal-setting, self-assessment, and reflection activities that strengthen students' confidence and motivation. Furthermore, textbooks can include diverse and relevant reading materials that stimulate students' interest and align with their academic and personal needs. By addressing both cognitive and affective factors, curricula can better support students in becoming proficient, motivated, and self-regulated readers.

1.6 Scope of the Study

This study was conducted at Addis Ababa University, Ethiopia, a setting chosen because it provided a practical and accessible environment for the researcher to carry out the investigation while attending classes. The study focused specifically on freshman students, covering two sections. Freshmen were selected because they are at a transitional stage in their academic journey, making them more likely to respond meaningfully to cognitive reading strategies and

reflect on their effects. Lower-class students were excluded because they may not have the same readiness or academic maturity to engage with the strategies and provide reliable feedback.

The study's primary focus was to examine the effects of cognitive reading strategies on four main aspects: students' reading comprehension, reading self-efficacy, reading motivation and perceptions. By concentrating on these areas, the researcher aimed to provide a clear understanding of how strategy instruction influences both the cognitive and motivational dimensions of reading among EFL learners.

Certain aspects were deliberately excluded to keep the study manageable and focused. These include other types of reading strategies, other language skills beyond reading, teachers' perceptions of reading instruction, and additional sections or student groups at the university. Limiting the scope in this way allowed for a more in-depth investigation of the targeted variables while maintaining feasibility in terms of time, resources, and data collection.

In summary, this study is focused, contextual, and practical, aiming to provide insights into how cognitive reading strategies can support freshman students' development as motivated, self-efficacious, and competent readers at Addis Ababa University.

1.7 Limitations of the study

As discussed in the findings part, this study suggests that providing strategy training on cognitive reading strategies affects students' reading comprehension. Yet, before the results are generalized to the whole population, the limitations should be communicated to other researchers who are interested to make further investigation in the same area so that researchers fill the gaps (Creswell, 2012). Although this study provides some important findings about the effects of reading strategies on students' reading comprehension, self- efficacy, motivation and perceptions, some questions and limitations remain.

First, the researcher used quasi experimental design to see to what extent the intervention brings change. In doing so, since the students were already assigned into different sections, based on their university freshman coordinators, the researcher took two intact classes and assigned them to control and experimental groups by lot. Therefore, due to barriers to randomization, although

the investigator tried his best to control the possible extraneous variables, the failure to use random assignment might still affects the internal validity of the findings as there could be some possible internal validity threats that this design could not control, namely threats resulting from an interaction of selection. Besides, since the study employed a quasi-experimental design with pre-existing groups it may fail the ability to fully control for participant characteristics such as prior knowledge, motivation, or reading habits. Although efforts were made to match the experimental and control groups, uncontrolled variables may have influenced the outcomes, particularly in motivational and self-efficacy measures.

Second, the intervention was relatively short-term, spanning a single academic semester. As noted in the discussion, self-efficacy and some motivational constructs develop gradually, and short-term interventions may not be sufficient to produce measurable changes in these domains. Consequently, the duration of the intervention may have limited the study's ability to capture the full effects of cognitive reading strategy instruction on these affective variables, thereby posing a potential threat to the validity of conclusions regarding long-term changes in motivation and self-efficacy. Nevertheless, the use of a pretest-posttest control-group design, the administration of identical instruments before and after the intervention, and the implementation of the intervention over an entire semester rather than a few weeks helped strengthen the internal validity of the findings by allowing meaningful changes in students' outcomes to be detected within the study period. However, because affective constructs often require extended periods of instructional exposure and repeated successful learning experiences to develop, caution should be exercised when generalizing the findings beyond the intervention period. Therefore, longitudinal studies with extended intervention periods and follow-up assessments are needed to examine the sustainability and long-term impact of cognitive reading strategy instruction on students' self-efficacy and intrinsic motivation, thereby enhancing both the internal and external validity of findings in this area.

Finally, the study focused primarily on cognitive reading strategies without integrating other categories of reading strategies, such as metacognitive, social, and affective strategies. While this focus enabled a more in-depth examination of the specific contribution of cognitive strategies to students' reading comprehension, motivation, and self-efficacy, it may have limited the comprehensiveness of the intervention because reading development is a multidimensional

process that is influenced by the interaction of various strategic, cognitive, and affective factors. Consequently, the findings should be interpreted within the scope of cognitive strategy instruction and may not fully represent the effects of a more comprehensive strategy-based approach to reading instruction. Nevertheless, this deliberate focus strengthened the construct validity of the study by allowing the effects of cognitive reading strategies to be examined with greater precision and reducing potential confounding influences from other instructional components. Therefore, future research should investigate multi-component interventions that integrate cognitive, metacognitive, social, and affective strategies to provide a more holistic understanding of reading development and to enhance the ecological validity and generalizability of findings across diverse educational contexts.

1.8 Definitions of Key Terms

The following terms are operationally defined as they are used in this study:

Traditional Method: In this study, the *traditional method* refers to the conventional approach to teaching reading in which instruction is primarily teacher-centered and focuses on activities such as reading aloud, translation, and answering comprehension questions without explicit training in cognitive reading strategies. It does not involve systematic instruction in strategies such as prediction, inference, summarization, or self-monitoring.

Reading Comprehension Achievement: In this study, *reading comprehension achievement* refers to students' ability to understand and interpret written texts in English, as demonstrated by their performance on reading comprehension tests administered during the study. Specifically, it is measured by students' scores on tests designed to assess skills such as skimming, scanning, predicting, inferring, and identifying main ideas and supporting details.

Reading Self-Efficacy: In this study, *reading self-efficacy* refers to students' beliefs in their ability to successfully perform reading tasks in English. Operationally, it is defined as students' level of confidence in understanding, interpreting, and analyzing texts, as measured through their responses to a structured Likert-scale questionnaire administered before and after the intervention.

Reading Motivation: In this study, *reading motivation* refers to the degree of students' interest, effort, and willingness to engage in reading activities. It is measured through a Likert-scale questionnaire that assesses both intrinsic motivation (e.g., reading for interest and enjoyment) and extrinsic motivation (e.g., reading for academic success or external rewards).

Cognitive Reading Strategies: In this study, *cognitive reading strategies* refer to the mental processes and techniques that students use to enhance their understanding of texts. These include strategies such as prediction, summarization, inference, visualization, and comprehension monitoring. Instruction in these strategies is explicitly provided to the experimental group during the intervention period.

Chapter Two: Review Literature

2.1. Review of Theoretical Studies

This section presents a comprehensive review of the theoretical and conceptual literature related to the study. It examines the key concepts, theories, and empirical perspectives that provide the foundation for understanding reading comprehension and the role of cognitive reading strategies in improving the reading performance of English language (EL) students. The review also explores the psychological factors of reading motivation and reading self-efficacy, which influence students' engagement with reading tasks and their overall achievement. The purpose of this review is to establish the theoretical framework that guides the study and to identify the relationships among the major variables investigated.

The review begins with the concept of reading, including its definitions, characteristics, and purposes in first and second language learning. It also discusses the importance of reading as a fundamental language skill that supports vocabulary development, grammatical knowledge, critical thinking, communication, and lifelong learning. Reading is widely recognized as an essential means of acquiring knowledge across academic disciplines and plays a significant role in learners' educational success and personal development.

The section then examines the concept of reading comprehension by discussing its definitions, levels, and cognitive processes involved in constructing meaning from written texts. It reviews the factors that influence reading comprehension, including linguistic knowledge, background knowledge, vocabulary, metacognitive awareness, and strategic reading behaviors.

The review further discusses the concept of teaching reading, highlighting its objectives, principles, and effective instructional practices. It explains the role of teachers in developing students' reading abilities through explicit instruction, guided practice, and continuous assessment. Particular emphasis is given to strategy-based instruction, which encourages learners to become active and independent readers by applying appropriate cognitive and metacognitive reading strategies before, during, and after reading.

In addition, the section reviews the historical development and current trends of teaching reading in Ethiopia. It examines the evolution of English language teaching policies, curriculum reforms, and instructional approaches implemented at different educational levels. The discussion also addresses the shift from traditional teacher-centered methods, which emphasized oral reading and grammar instruction, to learner-centered and communicative approaches that promote active engagement, comprehension, critical thinking, and strategic reading. Furthermore, the review highlights the opportunities and challenges associated with implementing modern reading instruction in Ethiopian schools, including issues related to instructional resources, teacher preparation, language policy, and students' English language proficiency.

The review also explores learning strategies and reading strategies by discussing their definitions, classifications, and contributions to successful language learning. Special attention is given to cognitive reading strategies, including prediction, summarization, inference, questioning, visualization, note-taking, identifying main ideas, making connections, and comprehension monitoring. These strategies enable learners to process information effectively, construct meaning from texts, regulate their comprehension, and improve reading achievement.

Moreover, the section examines major theoretical models of reading, including the bottom-up, top-down, and interactive models. These models explain how readers decode linguistic information, activate prior knowledge, and integrate multiple sources of information during the reading process. Understanding these models provides a theoretical basis for selecting instructional strategies that facilitate reading comprehension.

The review also discusses the stages of teaching reading, namely the pre-reading, while-reading, and post-reading stages. Each stage is described in terms of its instructional objectives and recommended classroom activities. The section further examines different types of reading, including intensive reading, extensive reading, skimming, scanning, critical reading, and recreational reading, together with their instructional purposes and applications in English language classrooms.

Furthermore, the review considers the role of reading motivation in reading achievement. Reading motivation refers to learners' willingness, interest, and desire to engage in reading

activities. Motivated readers tend to read more frequently, employ effective reading strategies, persist when confronted with challenging texts, and demonstrate higher levels of reading comprehension. Both intrinsic and extrinsic motivation are discussed, together with the classroom practices that foster students' interest and engagement in reading.

Another important psychological construct reviewed in this section is reading self-efficacy. Reading self-efficacy refers to learners' beliefs about their capability to successfully perform reading tasks and comprehend texts. Students with high reading self-efficacy are generally more confident, exert greater effort, use appropriate reading strategies, and persist when facing reading difficulties. Conversely, learners with low self-efficacy often avoid challenging reading tasks and demonstrate lower levels of achievement. The review discusses the theoretical foundations of self-efficacy and its relationship with reading motivation, strategy use, and reading comprehension.

Overall, this review of theoretical studies provides the conceptual and theoretical foundation for the present research. It synthesizes existing knowledge on reading, reading comprehension, teaching reading, cognitive reading strategies, reading models, instructional stages, types of reading, reading motivation, and reading self-efficacy. By integrating these concepts, the review establishes the theoretical basis for examining the effects of cognitive reading strategy instruction on English language students' reading comprehension while considering the mediating roles of motivation and self-efficacy.

2.1.1 Concepts of Reading

Reading is defined by different scholars in nearly similar ways. For instance, Weir (1998) states reading is the process of receiving and interpreting information encoded in language form via the medium of print. This means that the message conveyed by the text is decoded and interpreted through the vocabulary items, the grammatical points, and the rhetorical structure of the text. Besides, Anderson (1991) views reading as a dynamic fluent process that involves the reader and the reading materials in building meaning. According to Nunan (1991), reading is a dynamic

process in which the text elements interact with other factors outside the text, in this case, most particularly with the reader's knowledge of the contents of the text. This is to say comprehension does not rely only on the text content, but also on the readers' own literacy and experience. From this idea, we can understand that reading is not only making sound but also comprehending and interpreting the text.

2.1.2 Reading Comprehension

Reading comprehension is one of the most fundamental and complex skills in language learning. It goes beyond the mere recognition of words and sentences and involves the active process of constructing meaning from written texts. Most scholars define reading comprehension as an interactive process in which readers actively engage with a text by integrating textual information with their prior knowledge, experiences, and cognitive strategies. Rather than being passive recipients of information, readers are considered active participants who interpret, analyze, evaluate, and synthesize ideas presented in a text (Grabe, 2009).

Reading comprehension involves several cognitive processes that occur simultaneously. These processes include decoding linguistic symbols, identifying main ideas, making inferences, recognizing relationships among ideas, monitoring understanding, and evaluating the author's message (Snow, 2002). Successful comprehension therefore depends not only on the ability to recognize words but also on the reader's capacity to construct coherent meaning from the information presented in the text. In this regard, reading is viewed as a purposeful and strategic activity in which readers employ various cognitive and metacognitive strategies to understand, interpret, and retain information.

Contemporary theories of reading emphasize the interactive nature of comprehension. According to Rumelhart (1985), reading comprehension results from the interaction between the information provided by the text and the knowledge and experiences that readers bring to the reading situation. Similarly, Anderson (2003) argues that comprehension is achieved when readers actively connect new information with their existing knowledge structures and continuously monitor their understanding of the text. Therefore, reading comprehension is not

simply extracting meaning from written words but constructing meaning through a dynamic interaction between the reader, the text, and the context in which reading occurs.

Researchers have also emphasized that reading comprehension is influenced by numerous factors. These include linguistic knowledge, vocabulary size, background knowledge, motivation, self-efficacy, and the use of appropriate reading strategies (Grabe & Stoller, 2011). Students with adequate vocabulary knowledge and effective strategy use generally comprehend texts more successfully than those who rely solely on word recognition and translation. Moreover, affective factors such as motivation and confidence significantly influence learners' willingness to engage with texts and persist when comprehension difficulties arise (Guthrie & Wigfield, 2000).

In educational settings, reading comprehension is particularly important because it serves as the foundation for academic learning across disciplines. Students use reading to acquire new knowledge, understand concepts, and participate effectively in academic activities. In contexts such as Ethiopia, where English serves as the medium of instruction in secondary schools and higher education institutions, reading comprehension is indispensable for academic success. Students who experience difficulties in understanding texts often struggle to keep pace with academic demands, resulting in lower achievement and reduced opportunities for meaningful learning.

From a cognitive perspective, reading comprehension is considered a constructive process in which readers actively build meaning through the interaction of lower-level and higher-level cognitive skills. Lower-level processes include word recognition and syntactic processing, whereas higher-level processes involve inferencing, critical thinking, and integrating information with prior knowledge (Koda, 2005). Effective comprehension therefore requires readers to coordinate these multiple processes efficiently. Consequently, reading instruction should focus not only on teaching students to decode texts but also on developing the strategic and cognitive abilities necessary for deep and meaningful comprehension.

2.1.3 Schema and Schema Theory

The concept of schema occupies a central position in explaining how readers construct meaning during reading. Schema (plural: schemata) refers to the organized knowledge structures stored in memory that represent an individual's experiences, concepts, beliefs, values, and understanding of the world. According to Brown (2001), schema is a hypothetical mental structure for representing generic concepts stored in memory. It constitutes the organized background knowledge that enables individuals to make expectations, predictions, and interpretations while reading. Schemata reflect the experiences, conceptual understandings, attitudes, values, skills, and strategies that readers bring to a text situation.

Brown (2001) further argues that a text does not carry meaning by itself. Rather, meaning emerges through the interaction between the text and the reader's existing knowledge structures. Readers bring information, experiences, emotions, and cultural knowledge—that is, their schemata—to the printed word and use this knowledge to interpret textual information. Therefore, comprehension occurs when readers successfully connect new information presented in a text with their previously acquired knowledge and experiences.

Schema theory, which is closely associated with top-down processing, has had a profound influence on theories of reading and reading instruction. According to schema theory, comprehension is an active process of constructing meaning through the interaction between textual information and the reader's prior knowledge (Brown, 2001). The theory is based on the premise that past experiences lead to the development of mental frameworks or knowledge structures that help individuals make sense of new experiences and information. When readers encounter a text, they activate relevant schemata to interpret and understand the information presented.

According to Anderson and Pearson (1984), comprehension occurs when readers are able to relate incoming information to an appropriate schema stored in memory. If readers possess relevant background knowledge, they can process information more efficiently and make meaningful interpretations. Conversely, when readers lack appropriate schemata or fail to activate existing knowledge, comprehension becomes more difficult. This explains why readers

may experience comprehension problems even when they possess adequate linguistic knowledge.

Schema theory also emphasizes the important role of prior knowledge in facilitating comprehension. Prior knowledge allows readers to predict content, infer meanings, identify relationships among ideas, and fill in gaps when information is implicit. Consequently, readers with rich and relevant background knowledge often comprehend texts more successfully than readers who possess limited knowledge about the topic.

Researchers generally classify schema into three major categories: linguistic schema, formal schema, and content schema (Bilokcuoglu, 2011).

Linguistic schema refers to readers' knowledge of the language itself, including vocabulary, grammar, sentence structures, and idiomatic expressions. This type of schema enables readers to decode and understand the linguistic elements of a text. Readers with insufficient linguistic knowledge may struggle to understand a text even when they possess relevant background knowledge.

Formal schema refers to knowledge of the rhetorical and organizational structures of written texts. It includes knowledge of different text genres, such as fiction, poetry, newspaper articles, reports, and academic texts, as well as awareness of text organization, discourse patterns, and language conventions. Familiarity with text structures helps readers anticipate how information is organized and facilitates comprehension.

Content schema refers to readers' background knowledge about the topic or subject matter of a text. This includes knowledge about the world, people, events, cultures, and specific content areas. Content schema is particularly important because it allows readers to connect new information with existing knowledge, make inferences, and construct coherent meaning from the text.

The implication of schema theory for reading instruction is significant. Since comprehension depends largely on the interaction between textual information and prior knowledge, teachers need to help students activate and build their schemata before and during reading activities. To

facilitate schema activation, reading instruction often incorporates three stages of activities: pre-reading, while-reading, and post-reading activities. Pre-reading activities such as brainstorming, discussing prior experiences, predicting content, and introducing key vocabulary help activate relevant schemata and prepare students for comprehension. While-reading activities encourage readers to monitor understanding and make connections between new and existing knowledge, whereas post-reading activities provide opportunities for reflection, evaluation, and consolidation of understanding.

Therefore, the ability to understand a text is based not only on readers' linguistic knowledge but also on their general knowledge of the world and the extent to which that knowledge is activated during the reading process. Schema theory thus provides an important theoretical foundation for understanding reading comprehension and highlights the necessity of instructional approaches that help learners connect prior knowledge with new textual information in order to achieve deeper and more meaningful comprehension.

2.1.4 Learning Strategies

The concept of learning strategies emerged from cognitive psychology and educational research that sought to explain why some learners achieve greater success than others despite being exposed to similar instructional conditions. Learning strategies refer to the specific thoughts, behaviors, techniques, or actions that learners use to facilitate the acquisition, storage, retrieval, and application of knowledge and skills. They are deliberate and goal-oriented activities that enable learners to process information effectively and become more independent and self-regulated in their learning.

Weinstein and Mayer (1986) define learning strategies as behaviors and thoughts that learners engage in during learning and that are intended to influence the learner's encoding process. Similarly, O'Malley and Chamot (1990) describe learning strategies as special thoughts or behaviors that individuals use to help them comprehend, learn, or retain new information. These definitions emphasize that learning strategies are conscious and purposeful actions employed by learners to improve learning efficiency and performance.

Learning strategies are considered essential because they help learners manage and regulate their own learning processes. Strategic learners are able to plan their learning activities, monitor their understanding, solve problems, and evaluate their progress. Such learners are often more effective, autonomous, and motivated because they actively participate in constructing knowledge rather than passively receiving information (Oxford, 2011).

Researchers have proposed various classifications of learning strategies. Weinstein and Mayer (1986) categorized learning strategies into rehearsal strategies, elaboration strategies, organizational strategies, comprehension-monitoring strategies, and affective strategies. Rehearsal strategies involve repetition and memorization techniques that facilitate the retention of information. Elaboration strategies enable learners to connect new information with prior knowledge through activities such as summarizing, paraphrasing, and making analogies. Organizational strategies involve arranging information into meaningful structures through outlining, classifying, or mapping concepts. Comprehension-monitoring strategies help learners plan, monitor, and evaluate their learning activities, while affective strategies assist learners in managing emotions, motivation, and anxiety during learning.

Another influential classification was proposed by O'Malley and Chamot (1990), who categorized learning strategies into three broad groups: cognitive, metacognitive, and social or affective strategies. Cognitive strategies involve direct manipulation of learning materials through activities such as note-taking, repetition, inferencing, and summarizing. Metacognitive strategies involve higher-order executive processes that enable learners to plan, monitor, and evaluate their learning. Social and affective strategies involve interaction with others and the regulation of emotional factors that influence learning.

The importance of learning strategies lies in their contribution to effective and lifelong learning. Research has consistently demonstrated that successful learners use a wider range of strategies and employ them more appropriately than less successful learners (Zimmerman, 2008). The use of appropriate learning strategies not only improves academic performance but also enhances learners' self-confidence, motivation, and autonomy. Consequently, contemporary educational approaches emphasize strategy instruction as a means of developing self-regulated and independent learners who can successfully adapt to different learning situations.

2.1.5 Language Learning Strategies

Although language learning strategies are rooted in the broader concept of learning strategies, they specifically refer to the strategies that learners employ to facilitate the acquisition, storage, retrieval, and use of a second or foreign language. The concept gained prominence in second language acquisition research during the 1970s and 1980s, when researchers became increasingly interested in understanding why some language learners achieve greater success than others.

Rubin (1975) was among the first researchers to investigate language learning strategies and argued that successful language learners employ specific techniques and behaviors that contribute to effective language learning. According to Oxford (1990), language learning strategies are specific actions, behaviors, steps, or techniques that learners use to improve their progress in developing second language skills. Similarly, O'Malley and Chamot (1990) define language learning strategies as the special thoughts or behaviors that individuals use to help them understand, learn, or retain new information in a second language.

Language learning strategies differ from general learning strategies in that they are specifically designed to address the unique demands of language acquisition, such as learning vocabulary, understanding grammar, comprehending texts, developing communicative competence, and interacting effectively in the target language. They help learners become more active, autonomous, and efficient in managing their language learning processes.

Oxford (1990) proposed one of the most comprehensive classifications of language learning strategies, dividing them into direct and indirect strategies. Direct strategies involve the direct use of the target language and include memory strategies, cognitive strategies, and compensation strategies. Memory strategies help learners store and retrieve information through activities such as grouping, associating, and using imagery. Cognitive strategies involve manipulating the language through repetition, summarization, note-taking, inferencing, and practicing. Compensation strategies enable learners to overcome limitations in their language knowledge by guessing meanings or using alternative expressions.

Indirect strategies support language learning without directly involving the target language itself. These include metacognitive strategies, affective strategies, and social strategies. Metacognitive

strategies help learners plan, organize, monitor, and evaluate their learning activities. Affective strategies enable learners to regulate emotions, reduce anxiety, and maintain motivation during language learning. Social strategies involve interaction with others through asking questions, cooperating with peers, and seeking clarification.

The significance of language learning strategies has been widely recognized in second language acquisition research. Numerous studies have demonstrated that successful language learners tend to use a greater variety of strategies and employ them more effectively than less successful learners (Oxford, 2011). Strategy use has also been associated with higher language proficiency, increased motivation, greater learner autonomy, and improved academic achievement.

In the context of reading, language learning strategies are particularly important because reading comprehension requires learners to employ a variety of cognitive and metacognitive processes. Strategies such as predicting, inferencing, summarizing, questioning, monitoring comprehension, and activating prior knowledge enable learners to process texts more effectively and construct meaning from written materials. Consequently, strategy instruction has become an important component of contemporary language teaching because it helps learners become strategic, self-regulated, and independent users of the target language.

Although learning strategies and language learning strategies share many characteristics, they differ in scope and application. Learning strategies refer broadly to the techniques and processes used to facilitate learning in any academic domain, whereas language learning strategies specifically focus on the acquisition and use of a second or foreign language. Thus, language learning strategies can be considered a specialized subset of general learning strategies that address the unique cognitive, linguistic, and communicative demands of language learning.

2.1.6 Reading Strategies

Reading strategies refer to the deliberate, goal-directed actions that readers use to facilitate comprehension, construct meaning from texts, and overcome difficulties encountered during reading. They are conscious cognitive and metacognitive procedures that readers employ before, during, and after reading in order to enhance understanding, monitor comprehension, and improve retention of information. Rather than being passive recipients of textual information,

strategic readers actively interact with the text by applying various techniques that help them decode, interpret, and evaluate written materials effectively.

Researchers have provided several definitions of reading strategies. According to Oxford (1990), reading strategies are specific actions, behaviors, steps, or techniques that learners use to improve their reading comprehension and overall language learning. Similarly, Anderson (1991) describes reading strategies as conscious actions that readers take to achieve specific goals in reading, such as understanding main ideas, making inferences, or remembering information. These definitions highlight that reading strategies are intentional processes used to solve comprehension problems and enhance reading efficiency.

Reading strategies are generally categorized into cognitive and metacognitive strategies, although some classifications also include social and affective dimensions. Cognitive reading strategies involve direct manipulation of textual information to facilitate understanding. These include activities such as guessing meaning from context, summarizing information, identifying main ideas, making inferences, analyzing text structure, and translating or paraphrasing. These strategies help readers process information at both surface and deeper levels, enabling them to construct coherent meaning from texts.

Metacognitive reading strategies, on the other hand, involve higher-order thinking processes that enable readers to plan, monitor, and evaluate their reading activities. These strategies include setting reading goals, previewing texts before reading, checking understanding during reading, adjusting reading speed, and evaluating comprehension after reading. Metacognitive strategies are particularly important because they allow readers to regulate their cognitive processes and become more aware of their comprehension status. Successful readers are often characterized by their ability to effectively use metacognitive strategies to control and direct their reading process (Flavell, 1979; Mokhtari & Reichard, 2002).

In addition to cognitive and metacognitive strategies, some scholars also emphasize the role of social and affective reading strategies. Social strategies involve interaction with others to support reading comprehension, such as asking questions, discussing texts with peers, or seeking clarification from teachers. Affective strategies, on the other hand, involve managing emotions,

motivation, and attitudes toward reading. These include reducing anxiety, encouraging oneself, and maintaining positive attitudes toward challenging texts. Although these strategies are sometimes considered secondary, they play a significant role in sustaining engagement and persistence in reading tasks.

Reading strategies are essential because they enable learners to overcome linguistic limitations and comprehend texts more effectively. They help readers become active participants in the reading process rather than passive decoders of words. Skilled readers use a combination of strategies flexibly depending on the purpose of reading and the difficulty of the text. For example, they may preview a text to activate prior knowledge, skim for general ideas, scan for specific information, and then read intensively for deeper understanding.

In the context of second and foreign language learning, reading strategies are particularly important because learners often face challenges such as limited vocabulary, unfamiliar grammatical structures, and lack of background knowledge. Strategy use helps compensate for these limitations and improves overall comprehension performance. Research has consistently shown that learners who are trained in reading strategies perform better in comprehension tasks than those who rely solely on word-by-word translation or passive reading approaches.

Instruction in reading strategies has therefore become an important component of modern reading pedagogy. Teachers are encouraged to explicitly teach students how to apply strategies such as predicting, questioning, summarizing, clarifying, and inferring. Effective instruction typically involves modeling strategies, guided practice, and gradual release of responsibility to learners, enabling them to become independent and strategic readers.

In summary, reading strategies are essential tools that facilitate comprehension, promote active engagement with texts, and support the development of independent reading skills. Their effective use is closely linked to improved reading performance, greater learner autonomy, and enhanced academic achievement, particularly in English as a foreign language contexts where learners face additional linguistic and cognitive challenges.

2.1.7 Types of Reading Strategies

2.1.7.1 Metacognitive Reading Strategies

Metacognitive reading strategies refer to the higher-order processes that readers use to regulate, control, and evaluate their own reading activities. The concept of metacognition was first introduced by Flavell (1979), who defined it as knowledge about one's own cognitive processes and the ability to monitor and regulate those processes. In reading, metacognitive strategies enable learners to become aware of how they read and to make conscious decisions about the strategies they employ. These strategies involve planning before reading, monitoring comprehension during reading, and evaluating understanding after reading. Readers who use metacognitive strategies set specific purposes for reading, preview texts, activate prior knowledge, identify comprehension problems, reread difficult sections, and reflect on whether they have achieved their reading goals. Unlike cognitive strategies, which directly process textual information, metacognitive strategies function as executive mechanisms that guide and regulate cognitive activities (O'Malley & Chamot, 1990). Numerous studies have shown that successful readers employ metacognitive strategies more frequently than less proficient readers because these strategies enable them to monitor comprehension, solve reading difficulties, and become autonomous learners (Mokhtari & Reichard, 2002; Grabe & Stoller, 2011).

2.1.7.2 Compensation Reading Strategies

Compensation strategies are techniques that readers use to overcome deficiencies in their linguistic knowledge and continue comprehending texts despite encountering unfamiliar words or complex structures. According to Oxford (1990), these strategies allow learners to compensate for gaps in vocabulary, grammar, or background knowledge by using contextual clues and inferential reasoning. During reading, learners frequently encounter unknown words and concepts that may hinder comprehension. Instead of stopping or becoming discouraged, strategic readers employ compensation strategies such as guessing word meanings from context, making inferences based on surrounding information, predicting meanings using prior knowledge, and selectively ignoring less important unknown words. These strategies are particularly valuable in EFL contexts, where learners often have limited vocabulary and exposure to authentic English texts. Compensation strategies help learners maintain the flow of reading and encourage them to

focus on constructing overall meaning rather than becoming preoccupied with every unfamiliar language item.

2.1.7.3 Memory Reading Strategies

Memory strategies are techniques that facilitate the storage, retention, and retrieval of information during the reading process. Oxford (1990) explains that these strategies help learners organize and connect new information with existing knowledge, thereby enhancing long-term memory and comprehension. In reading activities, memory strategies assist learners in remembering vocabulary, concepts, and important information from texts by creating meaningful associations. Readers may connect new words to familiar concepts, create mental images, group related ideas, develop semantic maps, or use mnemonic devices to improve retention. Although memory strategies do not directly contribute to the immediate construction of meaning in the same way as cognitive strategies, they provide an essential foundation for reading development by strengthening vocabulary knowledge and facilitating the integration of new information with prior experiences. Consequently, learners who effectively employ memory strategies often demonstrate better recall and deeper understanding of reading materials.

2.1.7.4 Affective Reading Strategies

Affective reading strategies refer to the techniques that learners use to regulate their emotions, attitudes, motivation, and anxiety during reading activities. Reading is not solely a cognitive process; emotional factors also play a significant role in determining learners' engagement and success. According to Oxford (1990), affective strategies help learners manage their feelings and maintain positive attitudes toward language learning tasks. Students who experience high levels of anxiety or low confidence often avoid reading tasks or give up easily when they encounter difficulties. Conversely, learners who can regulate their emotions are more likely to persist and apply appropriate reading strategies. Affective strategies include encouraging oneself through positive self-talk, reducing anxiety, rewarding oneself after completing reading tasks, and setting personal goals for improvement. Research indicates that learners with high motivation and self-efficacy demonstrate greater engagement in reading activities and achieve higher levels of comprehension than those with low confidence and motivation (Guthrie & Wigfield, 2000;

Bandura, 1997). Therefore, affective strategies are essential because they create the emotional conditions necessary for effective reading and sustained learning.

2.1.7.5 Social Reading Strategies

Social reading strategies involve interacting with other people to facilitate comprehension and solve reading difficulties. These strategies are based on the view that learning is fundamentally a social process and that knowledge is constructed through interaction and collaboration (Vygotsky, 1978). In reading contexts, learners often enhance their understanding by discussing texts with peers, asking teachers for clarification, participating in group discussions, and sharing interpretations and ideas. Social interaction exposes learners to different perspectives and enables them to negotiate meaning and clarify misunderstandings. Through collaborative activities, students can learn new strategies from one another and gain confidence in their reading abilities. Social strategies are particularly beneficial in EFL classrooms because they provide opportunities for meaningful communication and support that may not be available through individual reading alone. Consequently, many scholars advocate the integration of cooperative learning activities into reading instruction to promote both comprehension and learner engagement (Grabe & Stoller, 2011).

2.1.7.6 Test-Taking Reading Strategies

Test-taking reading strategies are specialized techniques that learners employ when reading for assessment purposes. These strategies are designed to help students maximize their performance on reading examinations by managing time efficiently and responding effectively to test items. Unlike general reading strategies that focus primarily on comprehension and learning, test-taking strategies are oriented toward achieving success in specific assessment situations. Students often use strategies such as skimming passages to identify main ideas, scanning texts for specific information, identifying key words in questions, eliminating incorrect alternatives in multiple-choice items, and allocating time appropriately across different sections of a test. Although these strategies may not directly improve overall reading proficiency, they enable learners to demonstrate their comprehension more effectively in testing situations. Consequently, test-taking strategies are considered an important component of academic reading, particularly in

educational contexts where examination performance significantly influences students' academic achievement.

2.1.7.7 Global Reading Strategies

Global reading strategies are deliberate, planned actions that readers employ to manage and organize their reading process. According to Mokhtari and Sheorey (2002), these strategies involve setting purposes for reading, previewing the text, using textual features such as headings and illustrations, and activating prior knowledge before reading begins. Global strategies provide readers with an overall framework for approaching a text and help them establish clear goals for comprehension. Skilled readers frequently use these strategies to develop expectations about the content and structure of texts and to determine appropriate approaches for accomplishing their reading objectives. By providing an organized and purposeful approach to reading, global strategies contribute significantly to effective comprehension and learner autonomy.

2.1.7.8 Problem-Solving Reading Strategies

Problem-solving reading strategies are techniques that readers employ when they encounter difficulties during the reading process. These strategies are action-oriented and are activated in response to comprehension problems. According to Mokhtari and Sheorey (2002), readers use problem-solving strategies such as rereading difficult passages, slowing down their reading speed, paying closer attention to important information, and making inferences to resolve comprehension difficulties. Effective readers are characterized by their ability to recognize when comprehension breaks down and to employ appropriate strategies to overcome these obstacles. Problem-solving strategies are particularly important because they enable learners to maintain comprehension and continue reading despite encountering challenging texts. Their use reflects active engagement with the text and demonstrates readers' ability to regulate and adapt their reading behaviors according to situational demands.

2.1.7.9 Support Reading Strategies

Support reading strategies are practical techniques that assist readers in comprehending, organizing, and retaining information from texts. According to Mokhtari and Sheorey (2002),

these strategies include taking notes, underlining important information, highlighting key ideas, using dictionaries, translating difficult sections into the first language, and summarizing the content of a text. Support strategies provide external assistance that complements cognitive and metacognitive processes during reading. They are particularly beneficial for EFL learners because they help reduce cognitive overload and facilitate the organization and retention of information. By enabling learners to interact more actively with texts and record important information, support strategies contribute significantly to improved comprehension and long-term learning outcomes.

2.1.7.10 Cognitive Reading Strategy

There are numerous special views about the definition of reading strategies relying on distinct experts. Garner (1987) defines reading strategies as commonly planned, playful activities undertaken via active learners, to remedy perceived cognitive failure. Moreover, Barnett (2002) has used the term to mean "the cognitive operations that take place when readers read a text with the purpose of making sense of what they study. In this way, reading strategies are the comprehension tactics that readers use as a way to make feel of what they examine" (P, 1-14). So, reading techniques are powerful strategies which are utilized by EFL beginners to achieve success in reading comprehension. On the other hand, we can't exclude the roles of EFL instructors who should be both aware of the use of reading strategies and ought to teach learners the way to use those distinctive techniques effectively.

The reader uses cognitive processes or activities known as cognitive reading strategies to try and deduce meaning from a text. These comprise the top-down processing, which concentrates on the reader testing predictions, gaining the essence, drawing conclusions, etc., and the bottom-up processing, which concentrates on the reader analyzing linguistic features, as well as the combination of these two types of processing.

2.1.8. Types of Cognitive Reading Strategies

In the area of reading strategies studies, many researchers have applied types of techniques which are more effective and beneficial for college students. Some of them are: predicting,

skimming, scanning, inferring, guessing the meaning of new phrases, self-monitoring, and summarizing. Some of them are discussed here under.

2.1.8.1. Predicting

Magiliano (1993) stated that "prediction strategy entails thinking about what might be coming next in the text. It is carried out through powerful readers that use pictures, headings and text as well as personal experience to make predictions earlier than they begin to study" (p: 35-53). So, predicting includes questioning in advance while analyzing and watching for data and occasions in the textual content. In this sense, predicting requires students to apply the text to decide what is going to appear next. Readers confirm or deny predictions with support from the text (test-wise word association, 2006).

2.1.8.2. Skimming

It is used by readers to get the main concept about the content of the material by analyzing the textual content fast i.e. in this strategy; readers will search for general ideas before setting effort into close studying (Grellet, 1999, P, 2-25). As an example, one does now not want to read the complete texts or articles; s/he may also use diverse techniques to skim: (1) queried without aware of efforts. Use of quick look through the pages (2) be aware of the titles and headings and subheadings (3) examine the outlet sentence and the conclusion cautiously (4) read the initial and the final sentence of every paragraph to obtain the main idea of the text. So, skimming is a strategy that requires readers to read fast so that he/she can get a top level view/the general idea or gist of a section.

2. 1.8.3. Scanning

According to Grellet (1981), "Scanning is a reading strategy that calls for a reader to search for specific statistics without reading the entire text, through searching for its name, table of content and so forth" (P,58-59). It is a strategy you frequently use whilst looking for precise information through reading something fast including look for key words or ideas. In most cases, you know what you are looking for, so you're concentrating primarily based on finding a particular answer. It entails moving your eyes speedy down the page searching for unique words and terms. On this way, we can say that scanning is reading quickly to locate particular facts.

2.1.8.4. Inferring

Prezler(2006) stated that "inferences are evidence based guesses i.e. in case of reading, college students use their previous knowledge to make inferences about the text". Zimmermann (2009) also stated that inferences are often known as what you "examine between the lines." That means the writer needs the reader to infer to the ideas that the writer has implied. He also states that "Drawing inferences from text is a method which calls for readers to apply their prior knowledge (schema) and textual information to draw conclusions, make critical judgments, and form unique interpretations from the text" (p23). So, the inferences are the conclusions that a reader draws about the implied passage based on what is truly said by the writer.

2.1.8.5. Guessing the Meaning of New Words

One of the most difficult troubles that make an impediment for college students in the comprehension of reading is unusual/new words. In line with this, Clarck (1980) noted that the main remedy to resolve this trouble is to guess the meaning of unknown words from the context to save time and to go on reading without interruption or referring to a dictionary (P, 211-220). The capability to guess the meaning from context is a useful skill to exercise and try to enhance comprehension. There are numerous matters that might help students like: (1) guess the meaning of the text which surrounds it (2) the way the word is created (3) schema or past information of the students about the subject (E.O.I. de Sabinaningo organisation, 1993).

2.1.8.6. Self -Monitoring

Hanson (1996) perceives that the capacity of a student to self-monitor his or her performance is a natural step towards becoming autonomous. It could appear when students take responsibility for his or her behavior and essentially emerge as "agents of trade". Furthermore, self-monitoring can be used both to evaluate where students are functioning academically and behaviorally and to enhance academic or behavioral performance.

2.1.8.7. Summarizing

This is a method that readers can apply; it requires them to summarize the key points or information from a text in their own words after they have understood it. To put it another way,

the students are to take a large amount of material and distill it down to just the most important details. According to Oxford (2006), summarizing is a brief description of the key ideas or components of something without any additional information (p. 717). Furthermore, Reading Rockets Organization (2014) states that summarizing helps students to identify the most important ideas in a material, to ignore unimportant details, and to meaningfully integrate the essential ideas. Teaching students to summarize improves their cognitive capacity approximately what is read."

Based on Mebratu (2014), cognitive reading techniques consist of a range of specific sub-strategies that help learners actively engage with a text and improve comprehension. These strategies begin with over viewing**,** which involves reading headings, subheadings, and summaries to gain an initial sense of the material. This is followed by predicting**,** where readers anticipate what the passage will discuss. During reading, learners apply scanning to quickly locate specific information and skimming to grasp the general idea of the text.

As comprehension develops, readers engage in confirming or rejecting their earlier predictions by checking whether their assumptions about the text are accurate. They also practice activating prior knowledge**,** which involves connecting new information with what they already know while identifying main ideas and supporting details. Another important strategy is recognizing text organization**,** where readers understand how ideas are logically arranged, including coherence, cohesion, and references across paragraphs.

To deepen understanding, learners use visualization**,** forming mental images of the concepts presented in the passage. When difficulties arise, they employ problem-solving strategies such as rereading unclear sections, continuing to read for clarity, guessing word meanings from context, analyzing affixes, skipping less important unknown words, consulting a dictionary, or verbalizing unfamiliar terms. Additionally, readers may use note-taking by writing brief points or personal abbreviations in the margins to capture key ideas.

Finally, comprehension is reinforced through summarizing**,** where learners write a concise version of the text, and underlining or highlighting, which helps them identify and remember important information. Together, these cognitive sub-strategies enable readers to process texts more effectively and become more strategic and independent learners.

Students cannot able to apply all of these reading strategies without relying on their teachers who have a role in teaching some instructions for EFL students, and this, will be spoken in the next page. Therefore, teachers are responsible enough to show them how to apply range of strategies.

2.1.9. The Importance of Reading Strategies

The majority of EFL students in the school system struggle greatly with reading comprehension of written texts. For pupils, decoding textual meaning can be a significant barrier. While they may be able to comprehend individual words or sentences, they may struggle to grasp the meaning of the text in its entirety. This occurs because they do not have the reading techniques necessary to solve their reading issues.

Numerous studies have demonstrated the significance of reading techniques and their usefulness in improving and developing reading comprehension. Reading strategies are more helpful and beneficial for students who demonstrate a lack of reading comprehension as well as for those who have lower reading skills, according to McNamara et al. (2009) (P, 218). These learners are highly dependent on these strategies in order to achieve reading comprehension. Consequently, readers who consistently apply reading techniques will develop into professionals and eventually be able to apply their reading skills.

Cohen (1998) states that the goal of strategy training is to give students the ability to: Self-diagnose their strengths and weaknesses in language learning, recognize the factors that contribute to their more effective language learning, expand their ability to solve problems in a wider variety of ways, make choices regarding how to tackle a language task and monitor and assess their work. Finally, effective strategies should be adapted to new settings.

2.1.10 Steps to be followed in Strategy Training

Despite the lack of empirical evidence to support a single optimal approach to strategy training, the most widely used one is the one put forth by the Pearson and Dole (1987), which outlines the subsequent stages for training strategies: Initially, the researcher will model the strategy and provide a clear explanation of its application and significance. Second, the researcher will allow the subjects to use the strategy in a guided practice. Thirdly, the researcher will concentrate on

consolidation—the process by which the instructor assists students in recognizing a strategy and determining when to apply it. After that, the students will use the strategy in an autonomous practice. Lastly, the pupils will use the method to the new tasks.

In addition, O' Malley and Chamot (1994) present four stage of strategy training so as to solve problem. These are:

1. **Planning** – in this stage, the students will plan ways to approach a learning task

2. **Monitoring:** students self- monitor their performance by paying attention to their strategy use and comprehension skill.

3. **Problem Solving**: students find solutions to the problem they encountered.

4. **Evaluation:** students learn to evaluate the effectiveness of the given strategy after it has been applied to a learning task. Therefore, the researcher will consider such steps in the process of conducting experiment.

From the recommendations by Chamot and O'Malley (1996), the researchers can also apply the five-stage strategy instruction as shown in Figure 1. In the preparation stage, the researcher activates the background knowledge of the participants by raising pre-reading activities that arouse the trainees' interest towards the specific topic. At this stage, the researcher should consider what should be done during the pre-reading stage. The second stage is the presentation stage where the researcher or the trainer explains and models the strategies to be practiced. During this stage the researcher is encouraged to bring and introduce the specific strategy to be taught with the passage that clearly demonstrates the strategy. During the third stage, the students are given opportunities to practice the strategies with while reading tasks. Besides, as illustrated from the figure 1, it is the stage where the trainer monitors their progress and provides relevant feedback. The fourth stage is called evaluation. As the name suggests, at this stage, the participants are expected to evaluate their strategy use. The last stage which is called expansion is the stage where the participants are encouraged to apply the reading strategies which they have learned to new tasks. In this study, the researcher prefers to follow CALLA's five stages which are demonstrated below for its clarity and connection with the three phases of reading.

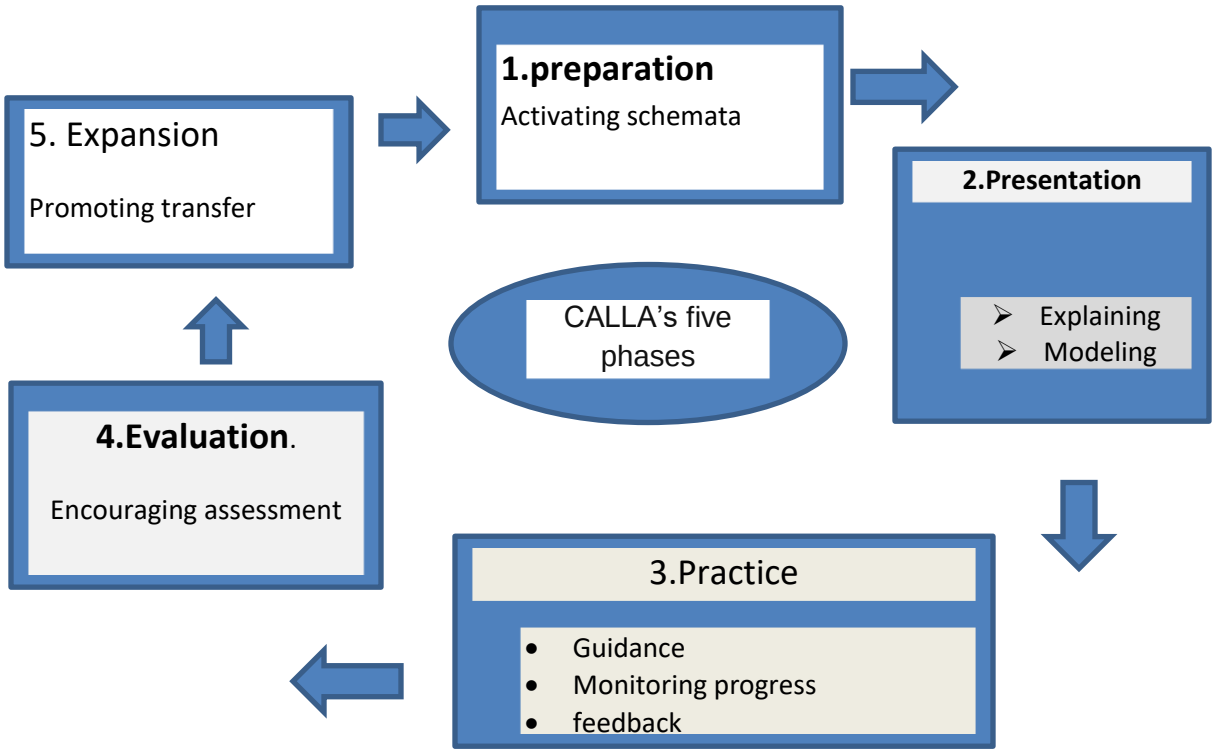


Figure 1: CALLA's five phases (Chamot and O'Malley, 1996)

2.1.11 Reading Comprehension and Reading Motivation

Second language (L2) reading strategy instruction is generally understood as a teaching approach that deliberately incorporates explicit strategy training into regular L2 reading courses, taking into account learners' needs (Cohen, 2000). A substantial body of research investigating the effects of such instruction on L2 reading comprehension and strategy use has consistently reported positive results. These outcomes align with findings from several meta-analyses, which show that strategy-based instruction can effectively enhance students' reading performance as well as their awareness of reading strategies (Edmonds et al., 2009; Okkinga et al., 2018).

For example, Salataci and Akyel (2002) carried out a four-week reading strategy intervention involving eight Turkish university students. By employing a range of data collection methods, including classroom observations, think-aloud protocols, questionnaires, interviews, and the PET

reading subtest, the researchers found that reading strategy instruction contributed positively to improvements in both English reading comprehension and strategy use. Nevertheless, the relatively short duration of the intervention raises concerns about whether such gains could be maintained or reproduced in longer-term instructional settings and across different contexts.

In a similar vein, Zhang (2008) applied reading strategy instruction grounded in constructivist pedagogy to examine its impact on the English reading comprehension of Chinese EFL learners studying in Singapore. In this study, the experimental group participated in a two-month intervention based on reciprocal teaching strategies, whereas the control group continued with conventional teacher-centered instruction without explicit strategy training. Reading comprehension was assessed using a test developed by the researcher. The results indicated that students who received strategy instruction showed notable improvements in both their use of reading strategies and their comprehension performance, while the control group did not demonstrate comparable progress.

Another notable study was conducted by Aghaie and Zhang (2012), who introduced a four-month explicit reading strategy instruction program for Iranian EFL learners using the Cognitive Academic Language Learning Approach (CALLA) model proposed by Chamot (2005). In this program, students in the experimental group were guided through the six stages of the CALLA model: preparation, presentation, practice, self-evaluation, expansion, and assessment. The findings revealed a significant improvement in students' reading comprehension scores and their use of reading strategies, suggesting that a structured and systematic approach to strategy instruction effectively enhances reading development in EFL contexts.

Similarly, Dabarera et al. (2014) conducted a metacognitive reading strategy intervention with 67 secondary school students in Singapore. In this study, the experimental group received instruction based on reciprocal teaching, where five strategies were introduced in each session and all thirty strategies were addressed at least once during the intervention period. In contrast, the control group continued with traditional teacher-centered instruction without explicit strategy training. The results showed clear differences between the two groups following the intervention, particularly in terms of students' metacognitive awareness of reading strategies and their reading comprehension performance. Both quantitative and qualitative findings suggested that training in

multiple strategies contributed to improvements in metacognitive awareness and comprehension. However, the study focused primarily on metacognitive strategies and did not incorporate cognitive strategy training, which limits the extent to which the findings can be generalized to broader frameworks of reading strategy instruction.

Research on reading motivation has also been shaped by the engagement perspective put forward by Wigfield and Guthrie (2000). This perspective differentiates between reading motivation as an internal psychological factor and reading engagement as the observable involvement of learners in reading activities. According to Readence et al. (1989), reading motivation refers to the feelings that influence individuals to approach or avoid reading situations. Within this framework, several studies indicate that reading strategy instruction can enhance both reading comprehension and motivation.

For instance, Wang (2009) found that a ten-week metacognitive reading strategy instruction (MRSI) program significantly improved Taiwanese high school students' reading comprehension as well as various aspects of reading motivation, including intrinsic and extrinsic motivation, perceived importance of reading, and reading self-efficacy. In a similar study, Shih and Reynolds (2018a) reported that a goal-setting-integrated reading strategy intervention implemented over one academic year was more effective than traditional teaching methods in improving both students' comprehension and their motivation to learn. Moreover, studies conducted in first language (L1) contexts have demonstrated that Concept-Oriented Reading Instruction can enhance students' intrinsic motivation to read (Guthrie et al., 1996; Guthrie et al., 2000). Taken together, these findings suggest that well-designed reading strategy instruction not only improves comprehension but also plays a crucial role in strengthening students' motivation to engage in reading activities.

2.1.12 Reading Comprehension and Reading Self-Efficacy

Self-efficacy is a central concept in educational psychology and plays a significant role in shaping how learners approach tasks, challenges, and learning situations. Albert Bandura (1986) defines self-efficacy as "people's judgments of their capabilities to organize and execute courses of action required to attain designated types of performance" (p. 391). In other words, it reflects

the level of confidence individuals have in their ability to perform specific tasks successfully. In the context of reading research, reading self-efficacy refers to learners' beliefs about their ability to effectively complete different types of reading tasks, such as understanding texts, identifying key ideas, and interpreting meaning. For example, Li Jing and Wang Chuang (2010) describe reading self-efficacy as learners' perceptions of their own reading abilities when engaging in a variety of reading activities. These perceptions are important because they influence not only how learners perform but also how much effort they invest and how persistent they are when faced with difficulties.

Although a considerable number of studies have examined reading strategy instruction, relatively few have focused specifically on how this type of instruction affects learners' reading self-efficacy. Most of the available research has been conducted in Western educational contexts, and the findings have not always been consistent. While some studies suggest that strategy instruction can strengthen learners' confidence in their reading abilities, others indicate that its effects may vary depending on factors such as instructional design, duration, and learner characteristics. For instance, Saeed Tavakoli and Mahmoud Koosha (2016) implemented a twelve-week metacognitive strategy instruction program based on the Cognitive Academic Language Learning Approach developed by Anna Uhl Chamot and J. Michael O'Malley (1994). Their findings showed that the instructional program led to significant improvements in learners' reading comprehension as well as their reading self-efficacy, suggesting that explicit strategy training can positively influence both cognitive performance and learners' beliefs about their abilities.

However, not all studies have reported similar outcomes. For example, Foteini Antoniou and Elmar Souvignier (2007) found that reading strategy instruction did not result in immediate improvements in reading comprehension or reading self-efficacy among German students with learning disabilities following the intervention. Interestingly, when a delayed test was conducted, significant improvements were observed in both areas. This suggests that the impact of reading strategy instruction may not always be immediate and that learners may require time to internalize and effectively apply the strategies they have learned. Such findings highlight the complexity of the relationship between instruction and self-efficacy and indicate that short-term assessments may not fully capture the long-term benefits of instructional interventions.

These mixed results emphasize the need for further empirical research to better understand how reading strategy instruction influences learners' self-efficacy. It is likely that multiple factors, including instructional context, cultural background, and learners' prior experiences, interact to shape these outcomes. Therefore, more comprehensive and context-sensitive studies are necessary to provide clearer insights into this relationship.

Overall, despite the growing body of research on reading strategy instruction, there is still limited understanding of how learners in the Chinese EFL context respond to such approaches. Cultural and educational traditions may play an important role in shaping learners' attitudes and behaviors. Some researchers have pointed out that Chinese learners may initially resist learner-centered instructional methods because traditional learning practices are influenced by Confucian educational values, in which teachers are regarded as highly respected authorities in the classroom (Lawrence Jun Zhang, 2008). As a result, adapting to strategy-based and learner-centered approaches may require time and support.

Within this context, the present study aims to explore how reading strategy instruction in a Chinese university EFL setting affects learners' English reading comprehension, strategy use, reading motivation, and reading self-efficacy. By examining both the cognitive and affective dimensions of learning, the study seeks to provide a more comprehensive understanding of the potential impact of reading strategy instruction.

2.1.13 Reading Comprehension and Students' Perceptions

Reading comprehension is the process through which readers actively construct meaning from written texts by integrating textual information with their prior knowledge, linguistic competence, cognitive abilities, and reading experiences. It extends beyond the recognition of words and sentences to include the interpretation, analysis, evaluation, and application of ideas presented in a text. Consequently, reading comprehension is regarded as the primary objective of reading instruction because it enables learners to acquire knowledge, develop critical thinking skills, and achieve academic success across different subject areas.

According to the RAND Reading Study Group (2002), reading comprehension is the process of simultaneously extracting and constructing meaning through interaction and involvement with

written language. This definition emphasizes that comprehension is not a passive activity but an active, purposeful process in which readers interact with texts by using their existing knowledge and cognitive resources. Similarly, Kintsch's (1998) **Construction–Integration Model** explains that comprehension occurs through two interconnected phases. During the construction phase, readers generate multiple interpretations of the text by combining textual information with prior knowledge. During the integration phase, they evaluate, organize, and refine these interpretations to develop a coherent mental representation of the text. This model highlights the importance of background knowledge, inference-making, and strategic processing in successful reading comprehension.

Pressley (2002) argues that effective readers are active, strategic learners who deliberately employ a variety of cognitive and metacognitive strategies before, during, and after reading. According to Pressley, explicit instruction in reading strategies enables students to become independent readers who can regulate their own comprehension processes. Strategies such as activating prior knowledge, making predictions, generating questions, identifying key ideas, monitoring comprehension, making inferences, and summarizing information improve students' understanding of complex texts. Consequently, strategy instruction has become one of the most widely recommended approaches for improving reading comprehension, particularly in English as a Foreign Language (EFL) classrooms.

Reading comprehension is influenced by numerous factors, including vocabulary knowledge, grammatical competence, reading fluency, background knowledge, cognitive abilities, motivation, self-efficacy, and strategic reading behavior. Learners with extensive vocabulary and rich background knowledge generally comprehend texts more successfully because they can connect new information with existing knowledge structures. Likewise, students who possess strong motivation and confidence in their reading abilities demonstrate greater persistence when encountering difficult texts and are more likely to apply effective reading strategies.

In EFL contexts, reading comprehension presents additional challenges because students read in a language that is not their first language. Limited vocabulary, unfamiliar grammatical structures, inadequate exposure to authentic English texts, and insufficient strategy instruction frequently hinder comprehension. Therefore, many scholars advocate explicit instruction in cognitive

reading strategies to help learners actively process textual information, monitor their understanding, and construct meaning independently. Such instructional approaches not only improve comprehension but also foster learner autonomy, confidence, and long-term academic achievement.

Students' perceptions refer to the beliefs, attitudes, judgments, and interpretations that learners develop regarding their educational experiences, classroom instruction, learning strategies, and their own academic abilities. These perceptions influence how students approach learning tasks, respond to instructional practices, and evaluate their own progress. Educational researchers widely recognize that students' perceptions significantly affect motivation, engagement, strategy use, persistence, and academic achievement.

Within reading instruction, students' perceptions reflect how learners evaluate reading activities, instructional methods, teachers' support, reading materials, and the usefulness of reading strategies. When students perceive reading instruction as engaging, meaningful, and supportive, they are more likely to participate actively in classroom activities, employ effective reading strategies, and develop positive attitudes toward reading. Conversely, negative perceptions of reading instruction may reduce students' interest, confidence, and willingness to engage with challenging texts.

Bandura's (1997) **Social Cognitive Theory** provides an important theoretical foundation for understanding students' perceptions of their reading abilities. According to Bandura, self-efficacy refers to individuals' beliefs about their capability to organize and perform the actions required to achieve specific goals. Students with high reading self-efficacy believe they can successfully comprehend difficult texts and overcome reading challenges. These beliefs influence the effort they invest, the strategies they employ, their persistence during difficult tasks, and ultimately their academic achievement. In contrast, students with low self-efficacy are more likely to avoid demanding reading activities, give up easily, and experience lower levels of reading comprehension.

Similarly, Guthrie and Wigfield (2000) emphasize that reading motivation is a critical determinant of reading engagement and achievement. Their theory suggests that motivated

readers read more frequently, invest greater effort, persist longer during difficult tasks, and employ a wider range of cognitive and metacognitive strategies than less motivated readers. Reading motivation includes both intrinsic motivation, which arises from personal interest and enjoyment, and extrinsic motivation, which is influenced by external rewards, recognition, and academic expectations. Students who value reading and perceive it as beneficial are more likely to become engaged readers and achieve higher levels of comprehension.

Students' perceptions of cognitive reading strategy instruction also play an important role in determining whether they apply those strategies independently. When learners recognize that strategies such as prediction, inference, summarization, questioning, and comprehension monitoring improve their understanding, they become more willing to use them during independent reading. Positive perceptions strengthen students' motivation, increase their confidence, and encourage the development of self-regulated learning behaviors. These outcomes are consistent with Pressley's (2002) assertion that successful readers consciously select and adapt strategies according to the demands of different reading tasks.

Research consistently demonstrates that students with positive perceptions of reading instruction generally exhibit stronger motivation, higher reading self-efficacy, more frequent strategy use, and better reading comprehension than students with negative perceptions. Positive classroom experiences, supportive teacher feedback, engaging instructional materials, and opportunities to practice reading strategies contribute to favorable perceptions of reading. These perceptions, in turn, encourage greater engagement and sustained effort in reading activities.

In the context of the present study, students' perceptions are considered an important indicator of the effectiveness of cognitive reading strategy instruction. Investigating learners' views regarding the usefulness, applicability, and impact of cognitive reading strategies provides valuable evidence about how instructional interventions influence reading motivation, self-efficacy, strategy use, and ultimately reading comprehension. Therefore, understanding students' perceptions contributes to a more comprehensive evaluation of the effectiveness of cognitive reading strategy instruction among English language learners.

2.1.14 Importance of Reading

Reading is widely recognized as one of the most essential language skills because it serves as a primary means of acquiring knowledge, developing critical thinking, and promoting lifelong learning. In contemporary education, reading extends beyond the simple decoding of written symbols and is regarded as a fundamental tool for academic achievement, personal development, and social participation. As societies increasingly become knowledge-based and information-driven, the ability to read effectively has become indispensable for accessing, evaluating, and utilizing information in various contexts (UNESCO, 2023).

One of the primary reasons reading is important is its significant contribution to academic success. Reading is the foundation of learning in almost all school subjects because students are required to comprehend textbooks, reference materials, and other written resources to acquire knowledge and develop understanding. Research has consistently shown that reading proficiency is strongly associated with academic achievement across disciplines, including science, mathematics, and social sciences (OECD, 2023). Students with strong reading skills are better able to understand complex concepts, synthesize information, and perform effectively in academic tasks. Conversely, poor reading ability often leads to difficulties in learning, lower academic performance, and reduced educational opportunities.

Reading also plays a crucial role in language development. Through extensive exposure to written texts, learners acquire new vocabulary, grammatical structures, and discourse patterns, which contribute to the development of overall language proficiency (Grabe & Stoller, 2020). Reading provides learners with authentic language input and exposes them to diverse styles of communication, thereby improving their writing, speaking, and listening skills. For learners of English as a Foreign Language (EFL), reading is particularly important because it often constitutes the primary source of exposure to the target language outside the classroom (Nation, 2019). Consequently, effective reading practices contribute substantially to the development of communicative competence.

Another important contribution of reading is the development of higher-order thinking skills. Reading requires learners to analyze information, make inferences, evaluate arguments, and

synthesize ideas from multiple sources. Such cognitive activities promote critical thinking and problem-solving abilities that are essential in the twenty-first century (UNESCO, 2021). Through engagement with diverse texts, readers learn to question assumptions, examine evidence, and construct reasoned interpretations. Therefore, reading not only facilitates knowledge acquisition but also supports intellectual growth and cognitive development.

Reading is equally important for promoting lifelong learning and independent learning. In modern societies characterized by rapid technological and social changes, individuals are expected to continually acquire new knowledge and skills throughout their lives. Reading enables individuals to access information independently and adapt to changing circumstances by engaging with new ideas and developments (World Bank, 2022). Strong reading skills empower learners to become autonomous and self-directed individuals who can seek information, solve problems, and continue learning beyond formal educational settings.

Moreover, reading contributes significantly to personal and social development. Through reading, individuals are exposed to different cultures, beliefs, experiences, and perspectives, which broadens their understanding of the world and promotes empathy and intercultural awareness. Literature, biographies, and informational texts provide opportunities for readers to understand diverse human experiences and develop social and emotional competencies (UNESCO, 2023). In this way, reading contributes not only to cognitive development but also to personal growth and social integration.

In the digital age, reading has become even more important because of the enormous amount of information available through digital technologies and online platforms. The ability to read critically and evaluate the credibility of information has become essential for effective participation in contemporary society (OECD, 2023). Digital literacy requires individuals to locate, analyze, interpret, and evaluate information from multiple sources, all of which depend heavily on strong reading skills. Consequently, reading proficiency is increasingly recognized as a prerequisite for meaningful participation in educational, professional, and civic life.

The importance of reading is particularly evident in higher education contexts, where students rely heavily on reading to access disciplinary knowledge and engage in academic discourse. In

Ethiopian universities, where English serves as the medium of instruction, students are expected to read and comprehend a wide range of academic texts across disciplines. However, many students struggle with reading comprehension, which negatively affects their academic performance and limits their opportunities for success (Kebede, 2024). Therefore, developing effective reading skills is essential not only for learning English but also for achieving academic success and preparing students for future professional and social responsibilities.

Overall, reading is a fundamental skill that underpins academic achievement, language development, critical thinking, lifelong learning, and active participation in society. In an increasingly globalized and information-rich world, the ability to read effectively has become more important than ever. Consequently, improving students' reading proficiency should remain a central goal of educational systems and language instruction, particularly in EFL contexts where reading often serves as the principal means of language learning and knowledge acquisition.

2.1.15 Trends of Teaching Reading in Ethiopia

The teaching of reading in Ethiopia has undergone considerable changes over the past several decades as educational policies and pedagogical perspectives have evolved. Historically, reading instruction in Ethiopian schools was largely characterized by traditional, teacher-centered approaches that emphasized oral reading, pronunciation, vocabulary memorization, and answering comprehension questions. Reading was generally viewed as a product-oriented activity in which students were expected to extract information from texts and reproduce it during examinations. Consequently, little attention was given to the processes involved in comprehension or to the strategies that learners use to construct meaning from texts (Haregewein, 2008; Smith et al., 2012; American Institutes for Research [AIR], 2012).

With the introduction of the Education and Training Policy (ETP) in 1994 and subsequent curriculum reforms, reading instruction gradually shifted from teacher-dominated practices toward approaches that emphasize active learner participation and meaning construction (Transitional Government of Ethiopia [TGE], 1994). The reforms encouraged teachers to engage students in interactive reading activities, promote critical thinking, and facilitate the development

of comprehension skills rather than focusing solely on rote learning and factual recall. However, studies indicate that the implementation of learner-centered reading instruction has been inconsistent, and many classrooms still rely heavily on traditional methods due to large class sizes, inadequate instructional materials, and limited teacher preparation (Tadesse, 2018; Mulatu & Regassa, 2022).

Another significant trend in Ethiopia has been the increasing emphasis on early grade reading instruction. Concerns about students' low literacy achievement led the Ministry of Education and development partners to implement several initiatives, including the Teacher Education and Learning for Growth (TELL) Program, the Early Grade Reading Assessment (EGRA), and the Reading for Ethiopia's Achievement Developed Technical Assistance (READ-TA) Project (AIR, 2012; Ministry of Education [MoE], 2020). These initiatives emphasized the importance of developing foundational reading skills such as phonemic awareness, phonics, vocabulary, fluency, and comprehension during the early years of schooling. Research findings, however, revealed that many Ethiopian children were not acquiring adequate reading skills in the early grades, prompting renewed efforts to improve teacher preparation and literacy instruction (Smith et al., 2012; Yisihak & Damtew, 2024).

In recent years, reading instruction in Ethiopia has increasingly incorporated explicit strategy instruction. Rather than simply asking students to answer comprehension questions, teachers are encouraged to teach learners how to read strategically by using techniques such as predicting, summarizing, questioning, monitoring comprehension, and making inferences. This shift reflects international trends in reading pedagogy that view reading as an active and strategic process (Grabe & Stoller, 2020). Recent studies conducted in Ethiopia have demonstrated that explicit reading strategy instruction contributes significantly to improvements in learners' reading comprehension and strategic awareness (Dawit, 2014; Alene, 2021; Wendaferew & Berlie, 2024).

Another emerging trend is the movement toward interactive and balanced approaches to reading instruction. Contemporary reading theories emphasize that successful reading involves the interaction of bottom-up processes, such as word recognition and decoding, with top-down processes, such as activating background knowledge and making predictions (Grabe, 2009).

Recent studies conducted in Ethiopia found that while some teachers prefer top-down and interactive approaches, actual classroom practices often remain text-based and examination-oriented (Mohammed et al., 2025). Researchers therefore recommend integrating various instructional approaches and reading strategies to meet learners' diverse needs and improve reading achievement (Mulatu & Regassa, 2022).

The integration of technology into reading instruction also represents a growing trend in Ethiopia. The expansion of digital learning platforms, educational technologies, and online resources has created new opportunities for developing reading skills. Although technological integration remains limited in many schools due to infrastructural constraints, recent educational reforms increasingly encourage the use of digital resources, multimedia materials, and technology-assisted instruction to enhance literacy development and learner engagement (MoE, 2020; UNESCO, 2023). The emergence of digital and artificial intelligence-supported educational initiatives further indicates a gradual movement toward technology-enhanced reading instruction in Ethiopia (UNESCO, 2023).

Recent research further indicates that teacher preparation and professional development have become central concerns in improving reading instruction in Ethiopia. Studies reveal that many teachers require additional training in evidence-based reading practices, particularly in early grade reading instruction and strategy-based approaches (Yisihak & Damtew, 2024; Bande et al., 2026). Consequently, current educational initiatives increasingly emphasize continuous professional development, explicit instruction, and the strengthening of teachers' pedagogical competencies in literacy instruction (MoE, 2020).

Overall, the trends of teaching reading in Ethiopia reveal a gradual transition from traditional, teacher-centered and product-oriented methods toward learner-centered, strategy-based, interactive, and technology-supported approaches. Nevertheless, the implementation of these reforms remains uneven across schools and regions, and significant challenges persist regarding teacher preparedness, instructional resources, and effective classroom practice (Mulatu & Regassa, 2022; Mohammed et al., 2025). Addressing these challenges is essential for improving students' reading proficiency and ensuring that reading instruction contributes effectively to learners' academic success.

2.1.16 Phases of Reading

In teaching and learning reading, the teacher and students have different activities in each phases of reading to comprehend the text. Different researchers explained what teachers and students have to do at each phase of reading as follows.

2.1.16.1 Pre-Reading Phase

In teaching reading comprehension English language teachers start the pre-reading plan by providing a significant word, idea, or image to activate conversation. Teachers can notice the associations by asking students to write down whatever first comes to their mind and then record their responses on the whiteboard. Similarly, pupils become conscious of their network of linkages when they are asked questions like "What do you think of..." (Ajideh, 2003).

Teachers encourage students to pay close attention to the lesson during the pre-reading phase, which paves the path for the rest of the reading process. Prior experience is crucial at the pre-reading stage since it would be too difficult to understand the text without it. In his research, Petros (2011) noted that "schemata can be applied pre-reading because students bring their knowledge of the world to the learning environment where new concepts will be disclosed" (p. 12). As a result, the pre-reading phase aids in triggering the pertinent schema.

Because they say there isn't enough time, most teachers have a tendency to ignore the pre-reading process. Additionally, as elucidated by Brown (2000), the pre-reading stage attempts to establish a broad framework for a reading lesson, activate past knowledge, introduce the reading text, and pre-teach crucial terminology. Additionally, throughout this phase, students are taught to read using a variety of tactics, including skimming, scanning, and anticipating.

It is widely acknowledged by authors of interactive reading instruction that there are a few key tasks that must be completed before reading. According to Abebe (2012), they include previewing the text to raise expectations about the paragraph to be read, activating past knowledge, and determining the purpose for a reading text. Because it puts readers at ease and gets them ready to understand the major points made in the text, an interactive approach to teaching reading uses the pre-reading portion of the reading lesson presentation as a starting point. According to Ajideh's (2006), pre-reading exercises can be beneficial in three ways: they

can help students develop new schemata, activate preexisting schemata, and let teachers know what the students know. Pre-reading exercises are therefore beneficial for both teachers and students. Moreover, it links readers with the given text. Ajideh also expressed that, in this stage, learners are given a valuable opportunity to bring their own prior knowledge and ideas about a particular issue and at the same time activate their related schema.

Additionally, doing pre-reading activities makes the activity more engaging. Overall, it helps students comprehend why they are reading, and provides the teacher with a means of evaluating the students' knowledge of the book either before or after reading. Before pupils start reading, these pre-reading activities really operate as a motivating tool for them. Pre-reading activities are crucial to enhancing students' reading experiences and knowledge. Pre-reading exercises also come in a variety of forms, and the particular ones change depending on the teacher and the book the students are reading. It is imperative that educators choose pre-reading activities that correspond with the texts their students will be reading. For example, while students are previewing the book, teachers may ask intriguing questions. Pre-reading exercises, as noted by Abebe (2012), include a range of activities such as asking questions pertaining to the title, brainstorming, going over well-known stories again, evaluating illustrations and titles, predicting based on previews, skimming and scanning for the main points, structure, and possible directions for the work, and reading the introduction and conclusion first.

2.1.16.2 While-Reading Phase

Exercises that come after pre-reading aid students in improving their foreign language proficiency, developing reading strategies, and decoding challenging text sections. According to Abebe's (2012) research, it might be challenging to assist students in using strategies when reading because each student is unique and requires a particular set of tactics. To solve this issue, teachers might provide specific activities in the form of "guided reading" activity sheets, highlight effective tactics, and clarify which strategies students most need to practice.

Reading for specific information, making mental pictures to depict what you see in your mind's eye, skipping unknown words, determining the meaning of new words by using context clues, word formation clues, or cognate practice, and thinking about syntax and sentence structure by

noting the grammatical functions of unknown words are some examples of these practice exercises.

2.1.16.3 Post-Reading Stage

The purpose of the reading lesson presentation's post-reading phase is to evaluate the passage's content, help students retain what they've read, and connect the text's ideas to their prior knowledge, areas of interest, and points of view. Furthermore, the linguistic components of grammar, vocabulary, discourse traits, and rhetorical organizations are the main emphasis of this stage of reading. (Melkamu, 2002). This means that students concentrate on tasks including language elements, grammatical points, vocabulary in context, and discourse features of the material at the end of the class.

This step can involve going over the passage's content again and having the students consider what they have read. Because the comprehension questions differ widely in what they ask the students, the teacher should assign individual, pair, or group work to the students in order to assist the post-reading lesson presentation (Melkamu, 2002). Because of this, the students gain a great deal from the opinions, insights, and expertise of their friends and classmates as well as from small group discussions about the post-reading phase.

During post-reading activities, teachers assess students' understanding first, and if needed, they guide them toward a more in-depth reading analysis. Because most reading in the actual world aims to look into another person's thoughts or to meet fresh information that complements what one already knows, rather than to memorize an author's point of view or summarize text content. Additionally, when students make connections between the material and their prior knowledge, they understand it better.

2.1.17. Reading Models

Reading models describe how the reader processes printed texts to construct meaning, which means that they address how readers can convert printed words into meanings at the level of visual perception of the text to mental analysis. Reading models explain what happened during the reading process. To deeply describe the reading process, the researcher discussed the three models of reading as follows.

2.1.17.1: The Bottom up Model

Accordig to Seid (2012), models that depict information as only flowing from lower level to higher level processing are known as Bottom up modes. The Bottom Up technique requires students to read in a linear manner by decoding a text word by word, connecting the words into phrases, and eventually sentences. According to Seid (2012), this reading model is primarily concerned with the recognition of individual letters, phonemes, and words. This indicates that the meaning of the entire text starts at the word level and progresses to the sentential level and finally the text level. In addition, it highlights a certain direction that contributes to the overall processing of text. In other words, this model represents the process by which the reader starts with the smallest units of text—letters—moves up to the higher units of text—clusters—and then reaches words. As a result, it enables students to begin with the perceptual processing of text and progress upward through word recognition to comprehension. Rayner and Pollatsek (1989) argued that words can be recognized more quickly than individual letters. Due to this limitation of bottom up model, the top down model was introduced.

2.1.17.2. The Top- down Model

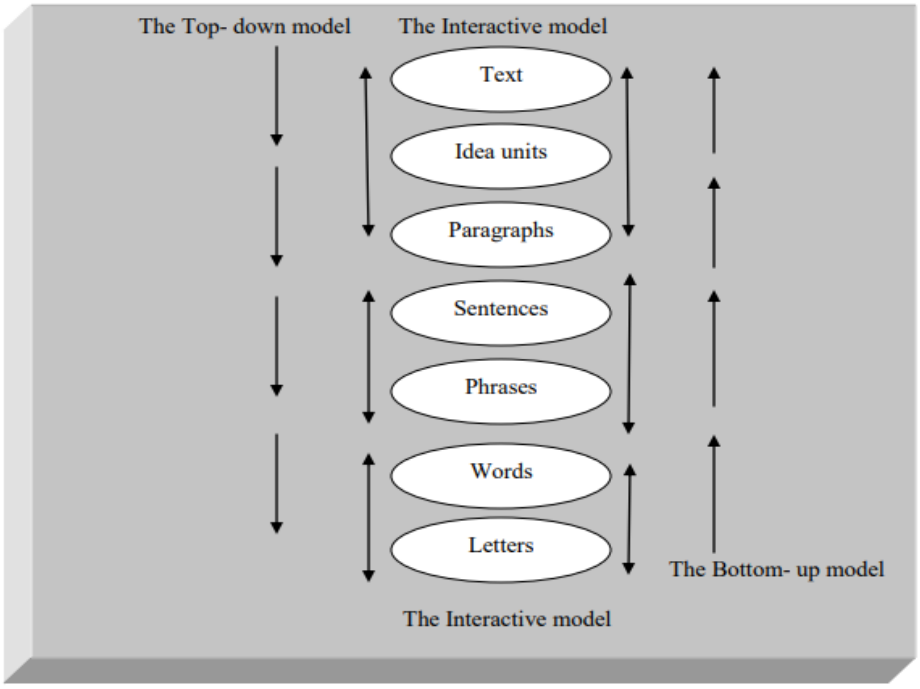
As Tracey and Morrow (2006) stated, the assumption of this model is that the reading process is primarily driven by what is in the mind of the reader's mind rather than what is on the printed text. The term top-down model refers to "the use of background knowledge in understanding the meaning of a given text" (Richards, 1990) refers to the process by which readers draw connections between their prior knowledge of a subject, situational or contextual knowledge, or knowledge that is stored in long-term memory as "schemata" and "scripts" (P, 50–51).

According to Grabe (1988), reading in this paradigm involves more than merely deriving meaning from a text; it also entails making connections between the text's content and the reader's prior knowledge that is drawn upon during reading. According to Grabe, reading is "a dialogue between the reader and the text." Readers will need less graphic material on the page the more background knowledge they have about the subject and content they are going to read. Thus, this stage is where the interpretation and inferences form the text is made. As mentioned in Seid (2012), the top down modes have been criticized because they ignore the roles of bottom up processes when top down processing fails. As a result, due to limitations of both bottom up and

top-down modes, a new and more insightful reading process named interactive model was introduced.

2.1.17.3. The Interactive Model

This model was postulated in response to the criticism against the above two reading models. It is an attempt to draw connections between the top-down and bottom-up reading paradigms. Put differently, it acknowledges the simultaneous interplay of two models during the reading process. According to Harmer (2001) it is important to see the acts of reading as interactions between top down and bottom up processing. Seid (2012), views it as the reader processes reading by beginning with a linguistic surface representation encoded by the writer, according to the interactive model. In this study, the interactive model is applied to facilitate the discussion because an interactive model draws connections between the top-down and bottom-up reading paradigms.



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Figure 2: Models of the reading process (Perfetti, Landi & Oakhill, 2005)

2.1.18. Types of Reading

2.1.18.1. Intensive Reading

Intensive reading describes a high level of comprehension and retention over an extended time; in other words, it involves reading a text closely or in-depth to understand it; some examples of this include going over each line in detail, consulting a dictionary, comparing, analyzing, translating, and remembering every expression it contains. In order to comprehend literal meaning, implications, rhetorical links, and other related concepts, intensive reading "calls attention to grammatical forms, discourse markers, and the surface structure details" according to Brown (1988) (P, 400–450). Thus, such type of reading is a reading for a prolonged amount of time while maintaining a high level of comprehension and retention.

2.1.18.2. Extensive Reading

The primary objective of extensive reading, according to Bamford et al. (2004), is for students to derive enjoyment from the book while also gaining a global comprehension of language through reading vast amounts of materials or lengthy texts (P, 1-4). It is defined as "reading as much as possible, for your own pleasure, at a difficulty level at which you can read smoothly and quickly without looking up words or translating to English as you go" in Liana's Extensive Reading Journals (2011). Thus, we can conclude that students' choice and enjoyment of reading are related to lengthy reading in order to achieve delight.

Based on previous discussions, we can conclude that reading is a crucial skill for students, enabling them to understand the content and acquire new language knowledge from written materials. It encompasses three models: the bottom-up, top-down, and interactive models, which illustrate the process through which a reader interprets a text. Additionally, reading is divided into two types: intensive and extensive reading. This chapter also presents various perspectives on the concept of reading comprehension and the methods and strategies readers employ to achieve it. To achieve this, students should be familiar with the primary strategies utilized in reading, which will be covered in the next chapter. Furthermore, students are encouraged to be engaged in extensive reading to develop a comprehensive understanding.

2.2. Review of Empirical Studies

EFL students' Reading strategies use has been among the key areas of FL strategy research. In such context, internationally, a significant number of studies have been done and shown the positive impacts of explicit strategy instruction on EFL learners' reading comprehension. Besides, a few studies were conducted in Ethiopia on different issues about reading comprehension. Just to begin with, among the studies conducted abroad, the "English Language Learning Strategies of Malaysian Secondary School Students" study, conducted by Noor (2000), aimed to identify the strategies used by ESL students in Malaysian secondary schools and to investigate the implications of such strategies for intercultural communication. 180 secondary school pupils were given Oxford's SILL Questionnaire by Noor, and his results show that spoken language practice is being neglected, indirect learning strategies are prevalent, anxiety levels are high, and students primarily rely on peers and teachers to acquire English. The study suggests that in order to promote intercultural communication, teachers should teach students effective learning strategies and make good use of core curriculum activities. These will help students develop and maintain consistent English language usage.

Furthermore, Noor (2000) conducted a study at the University of Malaysia on "Students' Perception of Reading Strategies While Comprehending an Academic Text." The purpose of this study was to determine how first-year Technology University of Malaysia students perceived the importance of reading methods for understanding academic texts. The study's participants comprise 60 first-year students from different faculties at TUM who were enrolled in UHB 1412 (English for Academic Communication) during the 2008/2009 session. The respondents were given a set of 58 questions on a questionnaire to help examine the reading strategies they employed. The frequency, percentage, and me an were determined by the analysis. It was discovered from this research that students employ the three reading strategies—cognitive, meta-cognitive, and social reading strategies—to understand the texts they read. Furthermore, it was discovered that first-year students use the social reading technique most frequently. The results indicate that there aren't many variations between the high and low achievers' usage of tactics, both in terms of quantity and kind. The results of the analysis show that although low achievers only utilize meta-cognitive reading techniques, high scores use all three reading strategies.

Using particular kinds of reading comprehension questions, Fan, Y. (2010) also looks into how Collaborative Strategic Reading (CSR) affects the reading comprehension of Taiwanese university students. 110 students with low-intermediate to intermediate English proficiency from two entire classrooms participated. Pre- and post-test designs were used in this investigation, along with a control group. The information was mostly derived from One-Way ANOVA statistical results, but it was also cross-checked using information from other sources, such as questionnaire answers and transcripts of group discussions during CSR. The results showed that CSR improved Taiwanese university students' reading comprehension, especially when it came to comprehension questions that asked them to identify the main idea and any supporting facts. However, the statistical analysis did not show that CSR significantly promoted the EFL learners' strategic reading competence with regard to prediction, inferences and vocabulary problems.

Khezrlou (2012) investigated the effectiveness of cognitive strategies on advanced Iranian students ' English reading comprehension. A total of 60 subjects participated in the study. Participants in on e experimental group (n = 20) received only cognitive training, while participants in the other expe rimental group (n = 20) were exposed to both training and verbal prompts. The control group (n = 20) did not receive any training.

The students in the experimental group received 10 hours of cognitive strategy training in their reg ular classrooms in both cases. The study's overall findings were consistent with the theory that helping Persian-speaking pupils' reading development benefits from the development of cognitive processes. While there were differences in the comprehension performance of the students in the two study groups, the author noted that the participants who were able to pronounce the words of the learned strategy demonstrated better attitudes toward learning to read and had more knowledge of how to use it than their peers who only received the strategy as a cognitive exercise. In contrast to the experimental group, the control group claimed that their reading abilities had not changed. The findings also demonstrate that, following the training program, there was no statistically significant difference in the strategies used by male and female participants.

Ardhy (2019) conducted a study to determine the reading comprehension levels of English department students in the reading comprehension course, to analyze the factors affecting the students' ability, and to determine the factors that make the difference between good students and

bad students' poor reading comprehension. This researcher collected test scores and surveys to analyze the data. While analyzing the data, the researcher applied the students' skills according to the scorecard and then explained the questions. The result shows that there is a difference between low and high achievers. Students with high comprehension levels are interested in reading English and use effective reading techniques. The results also show that low ability students, although they do not have all these, have more power to use dictionary when they encounter an unknown word and always prepare for the exam. Finally, the researcher asks the English department students to communicate and improve their knowledge by using English in the classroom.

To sum up, there are different non experimental and quasi experimental studies conducted in different countries at different levels to investigate the effects of reading strategies on students' reading comprehension. Although the findings were inconsistent, some of the researchers reported that reading strategies could enhance students' reading comprehension.

In terms of local research, Dawit (2014) looked at the impact of expressive reading teaching on students' reading comprehension through an empirical study utilizing a pretest posttest design with a control group. There were two sets of eight students each: the control group (n = 32) and the study group (n = 33). For ten sessions, the study class was specifically taught utilizing the REAP reading technique, and each lesson involved reading with comprehension times for the students. Using conventional reading education techniques, the control group received ten lessons. Each lesson's comprehension improvement was evaluated by the completion of a worksheet.

Both groups' reading comprehension abilities were assessed both before and after the experiment (differences between the pretest and posttest). The study of post reading scores, according to the author, demonstrates that the experimental class outperformed the control group by a wide margin. An examination of the academic achievement of the students in each course also revealed that the experimental group's reading scores improved more steadily than the control groups. The results of this study demonstrate that teaching first-grade children who have had little reading experience informative reading is a useful way to improve their reading abilities.

Dawit noted that although the result has shown the effectiveness of REAP in improving the reading comprehension of students, there were limitations to this study. The study clearly showed that primary school students' reading comprehension could be improved through explicit reading strategy instruction. However, firstly, the sample size of this study was very limited: only one teacher and two intact grade 8 classes were involved. Besides, the REAP intervention lasted only for 10 lessons. Hence, he recommended future researchers to extend intervention period and sample size. Besides, he suggested future researchers include diverse data gathering instruments including interviews about teacher and students' opinions about the REAP reading strategy.

Mebratu (2014) is another researcher whose work sought to ascertain how reading comprehension techniques affected comprehension abilities in foreign languages. A reading exam was used in the study to gauge the groups' and controls' cognitive abilities both before and after training. The pupils in both groups were likewise asked the same question. The participants were students in the tenth grade, split into two groups of sixty pupils for each. The study's findings demonstrated that cognitive reading instruction improved students' reading abilities, and the study groups' members did well on the test. Furthermore, pupils demonstrated improved use of techniques to build ideas in texts when comparing categories of cognitive processes.

Bogole (2018) evaluated Ethiopian EFL students' use of the results of explicit studying strategy teaching. He gathered 123 university students from Bahir Dar in Ethiopia, who was split into two groups at random. For a semester, the control group received ability-based training, whereas the experimental group received instruction based on an explicit reading method. To determine whether the explicit studying technique assisted the students in improving their comprehension proficiency, pre- and post-reading comprehension assessments were employed. According to the study's findings, pupils who learned reading strategies improved their reading comprehension more than those who received traditional skill-based instruction.

Motuma (2019) also conducted research on the reading habits of Ambo University English major college students in a report titled "An evaluation of reading strategies used by Ethiopian higher education students." Because the number of students is too small to control, all 52 (31 male and 21 female) English major college students at the college have been specifically chosen for the

study in order to achieve this goal. Achievement tests, questionnaires, and structured interviews were used to collect data from the respondents—both quantitative and qualitative. This study focused in particular on how students approached reading and how they recognized the main ideas and details, the stated and unstated facts, the authors' intentions, and their tone in five different study genres: guidelines, dialogues, articles, essays, and poems. The study's overall conclusion demonstrated that 89.7% of college students felt totally confined to using bottom-up techniques when reading and were frustrated when trying to deduce the primary ideas and underlying information from the texts.

The final research which was reviewed for this study was conducted by Aman & Lemu (2023), which looked into the reading strategies used by college students. Although this study seems to be comparable to Motuma (2019), it differs in that its primary focus was on identifying the frequency, kind, and range of reading methods that the participating students utilized when reading academic content. The research was conducted at Ethiopia's Wollo University. The study used a quantitative methodology and a descriptive design. 135 first-year social science students enrolled in the Communicative Skills course from three sections were selected by the researchers using straightforward random and available selection approaches to take part in the study.

The results the statistics were used to indicate whether a learner is a low, medium, or high reading strategy user. The findings of the study indicated that Wollo University social science first year students are medium strategy users. Moreover, the results of the study revealed that the participants had high usage of problem-solving strategies, followed by medium usage of support and global reading strategies. Based on the findings, the author pointed out that it was recommended that awareness raising should be made to make students' use of support and global reading strategies at higher frequency.

Hence, it can be noted that the empirical evidence discussed above recommended for the effectiveness of explicit strategy instruction in enhancing learners’ EFL reading comprehension; however, it seems that the above studies lack clarity on the methodology part. It was a bit hard to know the way each study was conducted in terms of analysis. Besides, the above studies did not tell us anything about the Effect size and normality test. Finally, the researcher feels that still it demands further study in the Ethiopian context, particularly, in the University level since very

few studies were made before, which can be taken as a gap. Therefore, the present researcher believes that further investigation is needed on the effectiveness of explicit reading strategy instruction in improving the reading comprehension of Ethiopian EFL learners in the local context.

Some of the imitations of the studies discussed, however, are that most of the researchers focused on elementary and junior secondary school students. Besides, in the above discussion, it was found that in most cases, limited data gathering instruments were implemented which could affect the strength of the findings to accept. It seems it is useful to triangulate the data using various instruments to validate the response given by individuals. Therefore, the present researcher believes that it is still necessary to conduct further studies on the effects of reading strategies on students reading comprehension particularly, at the university. The present study is distinguished from the previous local researches in that it mainly focuses on the effects of Cognitive reading strategy training on students reading comprehension, reading self-efficacy and motivation.

2.3 Theoretical Framework of the Study

Based on the researcher's investigation, theories, experiences, and literature are the sources of the theoretical framework. Though the information included in the theoretical and empirical studies has great importance in giving insight to the researcher, it is also crucial to set a conceptual and theoretical framework. Therefore, this study is grounded in schema, transactional, cognitive, and scaffolding theory since they are vital to reading comprehension.

2.3.1 Schema Theory

According to Brown (2001), schema refers to the organized background knowledge that enables us to form expectations or predictions in our interpretation. Schema encompasses the readers' experiences, understandings, attitudes, values, skills, and strategies that they bring to a text situation. Brown (2001) also emphasizes that a text lacks meaning unless the reader brings information, knowledge, emotion, and culture into the reading process.

Schema theory posits that a text merely guides readers to construct meaning based on their previously acquired knowledge. This previously acquired knowledge is known as the reader's

background knowledge, and its structures are referred to as schemata (Rumelhart, 1980). Merely relying on linguistic knowledge is insufficient for comprehending words, sentences, and texts (Carrell & Epsteinhold, 1988:76).

This theory assumes that readers' linguistic, content, and formal schemata determine their ability to understand a text. In this study, activating learners' background knowledge is considered an intervention to enhance their reading comprehension skills. Additionally, making predictions is deemed essential for fostering reading comprehension skills. According to Yetta M. Goodman (1980:5), readers should not base their predictions on every punctuation mark, letter, word, or sentence. Instead, they should focus on specific aspects available in the language. Thus, understanding the world aids in predicting the writer's intended meaning.

2.3.2 Scaffolding Theory

Scaffolding instruction has its roots in Lev Vygotsky's socio-cultural theory and his concept of the zone of proximal development (ZPD). According to Vygotsky, the ZPD is the gap between what learners can do independently and what they can achieve with the help of competent assistance (Raymond, 2000). The scaffolding teaching strategy is designed to provide personalized support based on the learner's ZPD (Brown, 2000).

As per Vygotsky's theory, scaffolding instruction involves teachers and others providing support structures to help learners progress to the next level (Raymond, 2000). The scaffolds are temporary, and as the learner's abilities improve, the teacher reduces the support to complete the task independently (Chang, Sung, & Chen, 2002).

The theory assumes that scaffolding can help learners stay on task. One way to scaffold is by providing training on reading strategies, which can provide pathways for learners to comprehend reading materials. The students can apply the lessons learned from the training to understand the reading materials.

According to Vygotsky, the two cognitive processes that should be nurtured in the classroom to help develop an awareness of thinking are a conscious awareness of thinking and an understanding of the psychological nature of thinking. Vygotsky believed that teachers should give explicit instructions to the students; then the students need to explain their understanding

and thinking process. If the students' explanations show that they do not understand, teachers correct the misunderstanding and continue to guide the students (Gredler, 2012)

The researcher believes that when teachers guide and support students through learning activities, the students can construct new understandings by building on their prior knowledge with the educator's support (Raymond, 2000). Studies have shown that the absence of guided learning experiences and social interaction can hinder learning and development (Brown, 2000). Therefore, this study is grounded in this theory, as it is essential to narrow the gap and enhance learners' reading comprehension by providing training on cognitive reading strategies.

2.3.3 Cognitive Theory

The cause of shifting from behaviorism to cognitivism is the failure of the behaviorist tradition to explain why and how individuals make sense of and process information. Contrary to behaviorist orientations, which emphasize behavior, the cognitive school focuses on meaning and semantics (Winn and Snyder, 1996). The primary emphasis of cognitive theory is on how knowledge is acquired, processed, stored, retrieved, and activated by the learner during the different phases of the learning process (Anderson, Reder, and Simon, 1997).

Simon (2001) implied that, in this theory, learning is seen as an active process "involving the acquisition or organization of the cognitive structures through which human beings process and store information," and the learner is considered to be an active participant in the process of knowledge acquisition and integration. Derry (1996) states that this theory describes knowledge acquisition as a mental activity involving internal coding and structuring by the learner. To help students process information effectively and efficiently, the teacher should employ various reading strategies when teaching reading tasks. Providing training on reading strategies can help learners become independent learners. So, it is advisable to assist them in selecting and using appropriate learning strategies, such as summarizing, questioning, predicting, evaluating, etc. (Perry 2002).

2.3.4 Transactional Theory

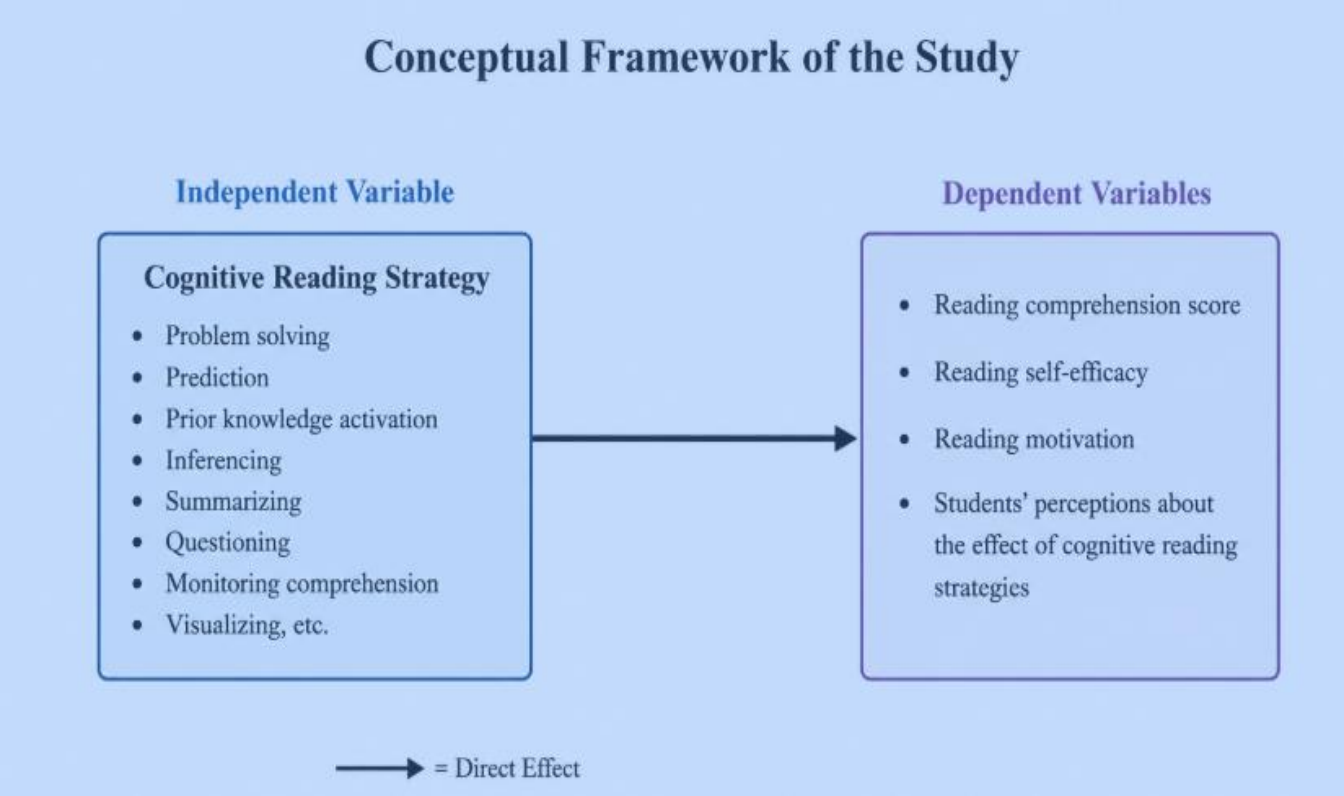
The study will be conducted using Rosenblatt's (1978) transactional theory as the guiding framework. Rosenblatt's theory holds great importance in the realm of reading comprehension.

Marhaeni (2016) suggests that the emergence of transactional theory holds the belief that objective meaning exists solely within the text itself. As Rosenblatt (1982) says, reading is a dynamic process that involves both the reader and the text, occurring within a specific time and context. By building upon transactional theory, Taylor (2011) suggests that active interaction between readers and the text is essential for understanding.

Rosenblatt's transactional theory emphasizes the significance of readers' prior experiences and the text in comprehending the material. Brown (2001) further highlights that skilled readers employ various strategies, indicating that students should utilize different reading strategies, manage their reading experiences, and build confidence when engaging with texts. Sanders (2012) also note that while teachers play a role in developing students' reading comprehension, learners themselves bear a significant responsibility.

In summary, the researcher believes that all the aforementioned theories are likely to impact the current study, as they are crucial in determining the success of students' reading comprehension. Although these theories appear to be interconnected and supportive of one another, the researcher chooses to incorporate all of them to create a comprehensive framework that will effectively guide.

2.4 Conceptual Framework of the Study



The present study is based on the assumption that the use of cognitive reading strategies positively influences students' reading outcomes and affective characteristics. The independent variable of the study is cognitive reading strategy instruction, which includes strategies such as problem-solving, prediction, activating prior knowledge, and monitoring understanding during reading. Cognitive reading strategies are deliberate mental actions that readers employ to process, interpret, and comprehend texts effectively. According to O'Malley and Chamot (1990), cognitive strategies enable learners to manipulate and transform learning materials, thereby facilitating comprehension and retention. Similarly, Oxford (2011) explains that cognitive strategies help learners understand and construct meaning from written texts through active engagement with the reading process.

The first dependent variable is reading comprehension score. Reading comprehension refers to the ability to construct meaning from written texts by integrating textual information with prior knowledge and experiences (Snow, 2002). Research has consistently shown that explicit

instruction in cognitive reading strategies significantly improves learners' comprehension abilities, including identifying main ideas, making inferences, and understanding textual relationships (Pressley & Afflerbach, 1995; Grabe, 2009).

The second dependent variable is self-efficacy, which refers to learners' beliefs in their capabilities to perform specific tasks successfully. According to Bandura (1997), self-efficacy influences the choices individuals make, the effort they expend, and their persistence when facing challenges. In reading contexts, students who successfully apply cognitive strategies tend to develop stronger confidence in their ability to comprehend texts and accomplish reading tasks.

The third dependent variable is motivation, which refers to the internal and external factors that initiate, direct, and sustain learning behaviors. Guthrie and Wigfield (2000) argue that students who are actively engaged in strategic reading often develop greater intrinsic motivation because they experience success and perceive reading as meaningful and manageable. Therefore, cognitive strategy instruction is expected to enhance students' willingness and enthusiasm to engage in reading activities.

The fourth dependent variable is students' perceptions toward reading and the use of reading strategies. Perceptions refer to learners' attitudes, beliefs, and opinions regarding reading and the effectiveness of strategy instruction. Positive experiences with cognitive strategies can improve students' perceptions of reading by making the reading process less difficult and more rewarding (Paris, Lipson, & Wixson, 1983). Consequently, learners may develop more favorable attitudes toward reading and become more strategic and autonomous readers.

Based on these theoretical and empirical assumptions, the conceptual framework of the study proposes that cognitive reading strategy instruction directly influences students' reading comprehension scores, self-efficacy, motivation, and perceptions toward reading.

Chapter Three: Methodology

3.1 Research Design

The design of a study is largely determined by its research objectives, as these provide the foundation for selecting appropriate methodologies (Stake, 2010; Creswell, 2013). In other words, the research design is not chosen arbitrarily but is guided by what the researcher intends to investigate and achieve. The research objectives define the focus, scope, and purpose of the study, and they consequently influence decisions about the type of data to be collected, the methods of data collection, and the overall research approach to be adopted. For instance, if the objective is to examine the effect of an instructional intervention on students' performance, a quantitative or quasi-experimental design is most appropriate. On the other hand, if the purpose is to explore participants' experiences or perceptions, a qualitative design would be more suitable. Therefore, there is a direct and logical relationship between what a study seeks to answer and how it is designed, ensuring that the selected methodology effectively addresses the research problem. In this study, the researcher aimed to investigate the effect of teaching cognitive reading strategies on the reading comprehension, self-efficacy, motivation and perceptions of first-year students at Addis Ababa University (AAU). To achieve these objectives, a pre-test–post-test quasi-experimental research design was employed.

A quasi-experimental design was selected for this study because it is particularly suitable for investigating the effects of an instructional intervention in real educational settings where full experimental control is not possible (Creswell, 2014; Dörnyei, 2007; Cohen, Manion, & Morrison, 2018). Unlike true experimental designs, quasi-experimental designs do not require random assignment of participants to experimental and control groups, which is often impractical or unethical in educational contexts such as university classrooms (Campbell & Stanley, 1963; Shadish, Cook, & Campbell, 2002). In the present study, students were already organized into intact classes at Addis Ababa University, making random assignment impossible without disrupting the natural classroom structure and institutional arrangements. Therefore, the quasi-experimental design allowed the researcher to work within existing class groups while still introducing and testing the impact of cognitive reading strategy instruction in a realistic instructional environment (Dörnyei, 2007; Creswell, 2014).

This design is also appropriate for examining cause-and-effect relationships between the independent variable (cognitive reading strategy instruction) and the dependent variables (reading comprehension, self-efficacy, motivation, and perceptions) in authentic learning environments. By comparing the performance of an experimental group receiving the intervention with a control group taught through conventional methods, the design enables the researcher to determine whether observed differences in outcomes can be attributed to the instructional treatment. At the same time, it maintains ecological validity because the teaching and learning process occurs under normal classroom conditions without artificial manipulation of the learning environment.

Furthermore, quasi-experimental designs are widely used in educational research because they balance methodological rigor with practical feasibility. As Creswell (2014) and Dörnyei (2007) note, such designs are particularly valuable in applied linguistics and classroom-based studies where controlling all variables is difficult. In this study, the pretest–posttest control group format strengthens the design by allowing the researcher to measure changes over time and compare gains between groups, thereby increasing the credibility of the findings despite the absence of randomization. Consequently, the quasi-experimental design provides an appropriate and effective framework for assessing the impact of cognitive reading strategy instruction in a real university EFL context.

To complement the quantitative findings and explore students' perceptions regarding the effects of cognitive reading strategies on their reading comprehension, self-efficacy, and motivation, the study also incorporated a qualitative approach. Qualitative research allows for an in-depth understanding of participants' beliefs, experiences, attitudes, and behaviors, providing insights into the processes and meanings behind observed outcomes (Maxwell, 2013).

Research paradigms are philosophical worldviews that guide researchers' assumptions about reality, knowledge, and the methods used to investigate research problems. The major paradigms include positivism, interpretivism, critical theory, and pragmatism. Positivism assumes that reality is objective and measurable and therefore relies primarily on quantitative methods and statistical analysis. In contrast, interpretivism views reality as socially constructed and emphasizes understanding individuals' experiences and meanings through qualitative methods.

The critical paradigm focuses on social transformation, empowerment, and addressing inequalities in society. Pragmatism, however, does not commit to a single philosophical position or method; instead, it advocates the use of methods that best address the research problem and answer the research questions (Creswell & Creswell, 2018).

The pragmatic paradigm was selected for the present study because it is well suited to research that seeks to understand complex educational phenomena through the integration of both quantitative and qualitative approaches. Since the study aimed to examine the effects of cognitive reading strategy instruction on English language students' reading comprehension while also exploring students' perceptions, motivation, and reading self-efficacy, relying on a single method would not provide a sufficiently comprehensive understanding of the research problem. Quantitative data were necessary to measure changes in students' reading comprehension, motivation, and self-efficacy, whereas qualitative data were required to gain deeper insights into students' perceptions and experiences of the instructional intervention. The pragmatic paradigm supports the integration of these complementary forms of evidence, allowing the researcher to draw more comprehensive and meaningful conclusions.

Furthermore, pragmatism emphasizes the practical consequences of research and encourages researchers to select methods based on their usefulness in addressing the research questions rather than on adherence to a particular philosophical stance (Morgan, 2014). This flexibility enables the researcher to combine the strengths of quantitative and qualitative methods while minimizing the limitations associated with using either approach independently. Accordingly, the pragmatic paradigm provided an appropriate philosophical foundation for the mixed-methods research design employed in this study, facilitating a more holistic evaluation of the effectiveness of cognitive reading strategy instruction in improving students' reading comprehension and influencing their motivation, self-efficacy, and perceptions.

Thus, this study is grounded in the pragmatic paradigm because it employs both quantitative and qualitative methods to obtain a comprehensive understanding of the effects of cognitive reading strategy instruction. Quantitative data collected through pre-tests and post-tests were used to measure changes in reading comprehension achievement, self-efficacy, and motivation, whereas qualitative data obtained from interviews and observations provided deeper insights into

students' experiences and perceptions regarding the intervention. Pragmatism is particularly suitable for mixed-methods research because it values methodological pluralism and the integration of different forms of evidence to address complex educational issues (Kaushik & Walsh, 2019). By combining quantitative and qualitative approaches, the study overcomes the limitations of relying on a single method and enhances the validity, credibility, and depth of the findings through triangulation. Therefore, pragmatism provides an appropriate philosophical foundation for understanding not only whether cognitive reading strategy instruction is effective but also how and why it influences learners' outcomes and experiences.

In summary, the pre-test–post-test quasi-experimental design, combined with qualitative inquiry, enables the study to address its research objectives effectively by capturing both the quantitative effects of the intervention and the qualitative experiences of students, providing a holistic view of the impact of cognitive reading strategies on AAU first-year students' reading performance, self-efficacy, perceptions and motivation.

3.2 Research Site

The study was conducted at Addis Ababa University, Ethiopia. This site was selected for convenience, accessibility, and its representative nature. Addis Ababa University reflects many of the structural and instructional characteristics common to Ethiopian higher education institutions, including class size, teaching methods, learning materials, and student learning behaviors, making it an appropriate site for this study. Creswell (2003) emphasizes that research sites in experimental and quasi-experimental studies should be selected based on their ability to provide access to participants, feasibility of data collection, and their representativeness of the broader population to which the findings are intended to be generalized. Accordingly, selecting a site that closely mirrors the typical educational context strengthens the external validity of the study and enhances the applicability of the findings beyond the immediate research setting.

3.3 Selection of the University and its Rationale

Ethiopia is home to 47 government universities, among which the researcher opted for Addis Ababa University through a convenience sampling method. This approach is referred to as convenience sampling due to the ease with which the researcher can engage with the subjects.

The university was selected for its proximity to the researcher's residence, facilitating cooperation (Creswell, 2003). Furthermore, based on the researcher's observations, the challenges faced by learners at this university are apparent. Another factor in the selection process was the assumption that this university shares similar characteristics regarding class size, infrastructure, resources, faculty, and student experiences. Consequently, it was chosen to evaluate the instruments, as the English syllabus utilized here appears to align closely with those at the actual research site. While the findings from this university may not represent the entire country, they are likely to highlight critical elements relevant to understanding the relationship between reading strategies and comprehension.

3.4 Identification of Year Level and Its Justification

The insufficient reading abilities of university students have hindered their ability to meet academic standards and expectations (Eshetie, 2010; Jha, 2014). Consequently, Addis Ababa University was chosen for this research to collect essential data regarding the impact of reading strategies on students' reading comprehension. The researcher posits that first-year students are at a pivotal moment as they are in transition into university, where they are required to study all subjects in English, significantly affecting their academic success. Achieving success at the tertiary level is crucial for students to graduate and obtain employment. Mastery of the English language, especially in reading comprehension, is essential for attaining positive examination outcomes. Additionally, the researcher considers this study to be practical at this educational level. Another factor in selecting first-year students is the scarcity of recent local research conducted at this stage. Finally, the researcher opted for this level as these students are relatively mature and capable of engaging with and responding to the researcher's questions during data collection. Since all students across various sections at the university utilize relatively the same English teaching resources and prepare for identical examinations, two sections representing the entire first-year students at AAU were selected for sampling.

3.5 Participants

From the numerous first-year students enrolled at Addis Ababa University in the 2017 E.C. academic year, the researcher selected two intact sections from the available freshman classes. The selection of these sections was guided by the impracticality of involving all first-year students in the university due to time, administrative, and instructional constraints. Therefore, instead of random sampling at the individual level, intact class sections were used, which is a common procedure in quasi-experimental studies in educational settings where pre-existing classroom structures cannot be altered (Cohen, Manion, & Morrison, 2018; Creswell, 2014).

After selecting the two intact sections, one section was assigned as the experimental group and the other as the comparison (control) group. The assignment was done at the group level rather than the individual level to maintain the natural classroom organization and avoid disruption of the regular teaching process. Accordingly, the comparison group (N = 46) was designated as the control group, while the other section (N = 48) was designated as the experimental group. This grouping ensured that both classes were comparable in their natural learning environments while allowing the researcher to implement and evaluate the effect of cognitive reading strategy instruction under realistic instructional conditions.

3.6 Sampling Methods and Sample Size

The participants of this study consisted of two intact sections of first-year students who were taking *Communicative English Skills II* at Addis Ababa University (AAU). The classes were selected to ensure a relatively balanced distribution of male and female students, minimizing potential gender-related influences on reading comprehension, reading self-efficacy, and reading motivation outcomes.

To form the experimental and control groups, one section was assigned as the experimental group, which received instruction in cognitive reading strategies, while the other section served as the control group by lot, which was taught using traditional methods. Both groups were instructed by the same experienced teacher, who had over 12 years of experience teaching English at various educational levels, including the university level. This consistency in

instruction helped control for potential variations in teaching quality and enhanced the internal validity of the study.

Pre-tests in reading comprehension, reading self-efficacy, and reading motivation were administered to both groups prior to the intervention to ensure comparability. The pre-test results indicated no significant differences between the experimental and control groups, confirming that any subsequent differences could be attributed to the cognitive reading strategy intervention rather than pre-existing disparities. Similarly, the reading motivation questionnaire was administered both before and after the intervention to track changes in students' motivational patterns. This approach aligns with best practices in quasi-experimental research methodology, ensuring that observed effects can be attributed to the treatment rather than extraneous variables (Creswell, 2014; Fraenkel, Wallen, & Hyun, 2019).

The selection of participants for interviews followed a random sampling procedure to give all students an equal chance of inclusion, enhancing the credibility and representativeness of the qualitative findings.

3.7 Instruments

In this study, a multi-instrument approach was employed to obtain comprehensive data by combining quantitative and qualitative methods. Five main instruments were used: a reading comprehension test, a reading motivation questionnaire, a self-efficacy scale, and semi-structured interviews. Each instrument was used to capture different dimensions of the intervention's effects, and the detailed description of each is presented separately below. The reading comprehension test consisted of 25 items adapted from a standardized TOEFL iBT reading test and was used to measure students' academic reading skills such as identifying main ideas, making inferences, and interpreting vocabulary in context.

The reading motivation questionnaire included 43 items adapted from the Reading Motivation Questionnaire (RMQ), measuring both intrinsic and extrinsic motivation dimensions using a Likert scale. The self-efficacy scale contained 14 items designed to assess students' confidence in performing reading tasks and understanding academic texts.

Finally, semi-structured interviews were conducted using 6 guiding questions to explore students' perceptions and experiences regarding the use of cognitive reading strategies. Overall, these instruments provided complementary quantitative and qualitative data, and their detailed analysis is presented in the sections that follow.

3.7.1 Reading Comprehension Test

For the pilot study, preliminary analyses were conducted to examine the appropriateness and sensitivity of the reading comprehension instrument in measuring the effect of cognitive reading strategy instruction. Independent and paired sample t-tests were used to determine whether there were statistically significant differences between the experimental and control groups and to assess within-group changes from pretest to post-test. These analyses helped the researcher evaluate whether the instrument could detect changes in students' reading comprehension performance following the intervention.

The initial test developed by the researcher consisted of two parallel reading passages, each accompanied by multiple-choice, fill-in-the-blank, and open-ended comprehension questions, as well as a short paragraph writing task. The passages were designed to reflect academic texts commonly encountered in university contexts and each contained approximately six paragraphs. The test measured different levels of comprehension, including literal, inferential, and evaluative understanding. A total of 20 questions were included, and the items were intentionally aligned with cognitive reading strategies such as skimming, scanning, predicting, inferring, guessing meaning from context, paraphrasing, and summarizing, ensuring that the test reflected the skills targeted in the instructional intervention.

The pretest was administered to establish a baseline of students' reading ability prior to the intervention. The results showed that the experimental group and the control group were comparable at the outset. An independent samples t-test confirmed that there was no statistically significant difference between the two groups at pretest, indicating baseline equivalence.

To ensure reliability, Cronbach's alpha was computed using SPSS version 26, and the results indicated acceptable internal consistency above the recommended threshold of 0.70. Despite these acceptable preliminary findings, concerns were raised regarding construct validity and

alignment with standardized assessment practices. Consequently, the researcher decided not to use the pilot-developed instrument in the main study.

For the main study, the TOEFL iBT reading comprehension test was adopted as the primary instrument. This standardized test was selected from official Educational Testing Service (ETS) materials due to its strong psychometric properties and widespread use in measuring academic reading proficiency (ETS, 2022; Brown & Abeywickrama, 2019). The test consists of academic reading passages followed by multiple-choice questions assessing skills such as identifying main ideas, making inferences, recognizing details, and interpreting vocabulary in context.

Although the original test includes multiple question formats and three reading passages with approximately 30 items, modifications were made based on expert feedback from two EFL PhD specialists to improve clarity, manageability, and suitability for the Ethiopian university context. These modifications included simplifying complex item structures, removing sentence insertion tasks, and eliminating items requiring multiple correct answers. As a result, the final version of the test adopted a standardized multiple-choice format only, ensuring objectivity, ease of administration, and scoring reliability (Haladyna & Rodriguez, 2018).

The same test was used for both pretest and post-test administration to ensure comparability of results. To minimize potential testing effects, a 12-week interval was maintained between the two administrations, no feedback on correct answers was provided after the pretest, and students were not informed of specific test content. These procedures helped reduce the likelihood of recall bias.

Standardized administration procedures were followed for both groups. The tests were administered under similar conditions, in the morning sessions, and in separate classrooms to reduce interference. Trained assistant data collectors administered and scored the tests under the supervision of the researcher. Scoring was conducted using coded identifiers, and raters were blinded to group assignment to minimize scoring bias and strengthen internal validity.

Students were given 1 hour and 30 minutes to complete the test, and they were informed that the results would be used strictly for research purposes and would not affect their academic grades. This helped reduce test anxiety and improve the authenticity of responses. After completion, all

data were coded, organized, and entered into SPSS for statistical analysis. Overall, these procedures ensured the reliability, validity, and objectivity of the measurement process in assessing the effects of cognitive reading strategy instruction.

3.7.2 Reading Self-Efficacy Questionnaire

To assess students' confidence in their ability to read and comprehend various types of English texts, a Reading Self-Efficacy Questionnaire was administered both before and after the intervention. The instrument was adapted from the reading self-efficacy subscale of the Motivated Strategies for Learning Questionnaire (MSLQ) developed by Pintrich, Smith, García, and McKeachie (1993). This adaptation was made to ensure that the items were contextually relevant to EFL learners in Ethiopian higher education settings while maintaining the theoretical rigor of the original instrument. The MSLQ has been widely validated and extensively used in educational psychology and second language acquisition research to measure learners' motivational and self-regulatory beliefs (Mills, Pajares, & Herron, 2007; Komarraju & Nadler, 2013).

The questionnaire consisted of 14 items designed to measure students' reading self-efficacy across different dimensions of academic reading tasks. These items were organized into sub-themes that reflect key aspects of reading self-efficacy in academic contexts. The first sub-theme was confidence in understanding academic texts, which assessed students' perceived ability to comprehend university-level reading materials such as textbooks and academic passages. The second sub-theme was confidence in handling linguistic difficulties, which measured students' beliefs about their ability to deal with unknown vocabulary, complex sentence structures, and difficult grammatical patterns while reading. The third sub-theme was confidence in performing reading comprehension tasks, which focused on students' perceived ability to answer different types of comprehension questions, including literal, inferential, and evaluative questions. The fourth sub-theme was confidence in task completion under time constraints, which examined students' belief in their ability to complete reading tasks within a given time frame, particularly in exam-like situations.

Each of the 14 items presented a specific reading task or situation, and students were asked to indicate how confident they felt in performing that task. The items covered a variety of authentic academic reading situations, including understanding practical texts, reading informational passages, and engaging with more complex academic materials. This ensured that the instrument captured the multidimensional nature of reading self-efficacy in real educational contexts.

Students responded to each item using a six-point Likert scale ranging from 1 (I cannot do it at all) to 6 (I can definitely do it). The use of a six-point scale without a neutral midpoint was deliberate, as it encourages respondents to make more decisive judgments about their perceived abilities and reduces central tendency bias, thereby increasing the discriminating power of the instrument (Likert, 1932; Krosnick & Presser, 2010).

Before administering the questionnaire, clear and detailed instructions were provided to students regarding how to complete the instrument. The researcher explained each section and ensured that participants understood the meaning of confidence ratings before they began responding. Students were given 30 minutes to complete the questionnaire, which was considered sufficient for thoughtful and independent responses without time pressure. During administration, the researcher closely monitored the classroom to ensure that students worked independently and did not discuss their answers with peers. Any questions raised by students regarding instructions were clarified without influencing their responses.

The same procedure was strictly followed for both pre-test and post-test administrations to maintain consistency, reduce measurement error, and enhance reliability. After completion, all questionnaires were collected, checked for completeness, and coded according to the numerical values of the Likert scale before being entered into SPSS for statistical analysis.

In terms of validity, the instrument demonstrated strong content validity because the items were closely aligned with the course objectives and reflected authentic academic reading tasks typically required at the university level (Grabe, 2009). Furthermore, construct validity was ensured by including multiple dimensions of reading self-efficacy, consistent with Bandura's (1997) conceptualization of self-efficacy as a multidimensional belief system that varies across

task types and difficulty levels. The inclusion of diverse reading tasks across different contexts also strengthened the representativeness of the instrument.

To ensure reliability, Cronbach's alpha was computed for both administrations. The pre-test yielded a reliability coefficient of 0.83, while the post-test yielded 0.87, both of which indicate high internal consistency and confirm the reliability of the instrument for research purposes (Muijs, 2004). These results suggest that the items consistently measured students' reading self-efficacy across different administrations.

Overall, the use of this carefully adapted and validated questionnaire enabled the study to capture not only students' reading performance but also their perceived confidence in handling academic reading tasks. This contributed to a more comprehensive understanding of the impact of cognitive reading strategy instruction, particularly in relation to affective outcomes such as self-efficacy, which play a crucial role in reading development and academic achievement.

3.7.3 Reading Motivation Questionnaire

The Reading Motivation Questionnaire (RMQ), originally developed by Wigfield and Guthrie (1997), was adapted for use in this study to assess students' motivation to read based on their self -reports. The RMQ is structured around 11 key aspects of reading motivation, each grounded in well-established motivational theories, and these aspects are grouped into three main categories, capturing different dimensions of students' reading motivation.

The first category focuses on competence and reading efficacy. This includes measures of reading efficacy, reading challenge, and reading work avoidance, reflecting how confident students feel about their reading skills, their willingness to tackle challenging texts, and their tendencies to avoid reading-related tasks.

The second category addresses achievement values and goals, which encompass both intrinsic and extrinsic motivation. Intrinsic motivation includes reading curiosity, reading involvement, and the perceived importance of reading, highlighting students' internal interest in and personal value attached to reading. Extrinsic motivation, in contrast, includes factors such as competition

in reading, reading recognition, and reading for grades, emphasizing motivation that is driven by external rewards or outcomes.

The third category examines the social dimensions of reading, including social reasons for reading and reading compliance. This dimension considers how social expectations, peer influence, and classroom interactions affect students' reading behavior. Overall, the RMQ provides a comprehensive framework for understanding the multiple factors that influence why and how students engage in reading activities.

In this study, the adapted RMQ consisted of 43 closed-ended items allowing for the collection of quantitative data. The questionnaire was prepared in English and administered twice—before and after the intervention—to measure changes over time. In terms of reliability, Wigfield and Guthrie (1997) ensured the quality of the instrument by removing items that reduced overall consistency. Similarly, the reliability analysis conducted in this study showed a Cronbach's alpha coefficient of 0.8, indicating a high level of internal consistency among the items. This value exceeds the commonly accepted threshold of 0.70 for reliability, indicating strong internal consistency (Cronbach, 1951; Tavakol & Dennick, 2011). This suggests that the questionnaire was a reliable tool for assessing students' reading motivation in this context. Prior to administration, the researcher explained the purpose of the questionnaire and encouraged participants to provide honest and thoughtful responses to ensure data accuracy.

The instrument comprised nine components of reading motivation, represented by the 43 items. One of the key components was reading curiosity, which included six items such as *"I might read more about something if the teacher explains anything that interests me."* Other components included intrinsic value of reading and extrinsic utility value of reading. The Cronbach's alpha values for these dimensions were 0.85 for intrinsic value, 0.80 for extrinsic utility value, and 0.76 for reading curiosity, indicating acceptable to high reliability for each construct.

The questionnaire utilized a Likert-scale format, which is particularly appropriate for measuring motivational constructs, as it allows respondents to express varying degrees of agreement or perception in a structured manner (Likert, 1932). Such scales are widely recognized for their

reliability, ease of administration, and suitability for quantitative analysis in educational research (Krosnick & Presser, 2010).

Regarding validity, the questionnaire demonstrated construct validity, as it was grounded in established theoretical frameworks of reading motivation, including intrinsic and extrinsic motivation theories (Wigfield & Guthrie, 1997). Additionally, content validity was ensured through the inclusion of items representing multiple dimensions of reading motivation relevant to EFL contexts.

Overall, the reading motivation questionnaire was found to be both reliable and valid for assessing students' motivation toward reading. The same administration procedures were applied during the pre-test and post-test phases to ensure consistency and comparability of the data collected.

3.7.4 Semi-Structured Interview

During the pilot phase, the researcher conducted interviews to gather preliminary insights into students' experiences with the reading strategy training and to refine the interview protocol for the main study. An interview guide was developed, and nine students from the experimental group were randomly selected to participate; however, only eight students attended due to one absence. The interviews were conducted in the classroom to provide a familiar and comfortable environment, which helped reduce anxiety and encouraged honest responses.

The interview protocol consisted of three main sections:

1. **Introduction:** This section explained the purpose of the study, addressed ethical considerations, and collected basic demographic information.
2. **Main questions:** This section included five guiding questions with follow-up probes designed to explore students' perceptions of the reading strategies learned, their application during reading tasks, and the challenges they faced.
3. **Closing session:** This section allowed participants to share additional comments and concluded the interview respectfully.

In the main study, semi-structured interviews were employed as a key qualitative data collection method to obtain in-depth information about students' experiences, perceptions, and reflections regarding cognitive reading strategy instruction. The choice of semi-structured interviews was based on their flexibility, which allows the researcher to use guiding questions while also probing, clarifying, and exploring participants' responses in greater depth. This makes the method particularly suitable for studies that seek to understand complex educational processes, such as how reading strategies influence comprehension, motivation, and self-efficacy, which cannot be fully captured through quantitative instruments alone (Dörnyei, 2007; Creswell & Poth, 2018).

The purpose of the interviews was threefold. First, they were used to explore students' perceptions of the usefulness and applicability of the cognitive reading strategies they had been taught. Second, they aimed to understand how students applied these strategies during actual reading tasks and what challenges they encountered in doing so. Third, the interviews sought to complement and explain quantitative findings by providing deeper insights into changes in students' reading motivation, self-efficacy, and overall engagement with reading. In this way, the interview data served an explanatory role within a mixed-methods framework, helping to interpret and triangulate the results obtained from tests and questionnaires.

The interview guide was carefully developed by the researcher and administered in a familiar classroom setting at Addis Ababa University, where participants regularly attended their classes. Conducting the interviews in a natural and non-threatening environment helped reduce anxiety and encouraged participants to express their views openly and honestly. To ensure diversity of perspectives, twelve students were initially selected randomly; however, during the actual data collection process, nine students from the experimental group participated fully in the interview sessions. One student was absent at the scheduled time, while two others provided limited and repetitive responses that did not contribute substantially to the depth of analysis. Therefore, only data from nine participants were included in the final analysis due to their richness and relevance.

The interview protocol was structured into three main sections to ensure clarity and coherence (see Appendix G). The first section involved the introduction, where the purpose of the study

was explained, ethical issues were addressed, and demographic information was collected. The second section consisted of five main guiding questions, each followed by probing questions to explore students' perceptions of strategy use, reading experiences, and challenges in applying cognitive reading strategies. Importantly, in the main study, an additional question was included to explore students' views on the impact of the training on their reading self-efficacy and motivation, which strengthened the connection between cognitive and affective dimensions of reading development. The final section served as a closing stage, allowing participants to provide additional comments and ensuring a respectful conclusion to the interview process.

The semi-structured format was particularly appropriate because it allowed the researcher to maintain a consistent focus across participants while also adapting questions based on individual responses. This balance between structure and flexibility enabled the collection of rich, detailed, and meaningful qualitative data that reflected students' authentic experiences. As noted in qualitative research literature, such depth is essential for understanding the processes underlying learning outcomes and for explaining quantitative results more fully (Creswell & Poth, 2018; Braun & Clarke, 2021).

To ensure reliability and trustworthiness, all interviews were audio-recorded with participants' consent. Recording ensured accurate capture of responses and minimized the risk of data loss or misinterpretation. The recordings were later transcribed verbatim to support systematic analysis. The interview data were analyzed thematically following Braun and Clarke's (2006, 2021) procedures, which involved familiarization with the data, coding, identifying patterns, and developing themes.

Finally, the interview findings were triangulated with quantitative data from the reading comprehension test, motivation questionnaire, and self-efficacy scale. This methodological triangulation strengthened the validity of the findings by allowing cross-verification of evidence from multiple sources (Creswell & Plano Clark, 2018). For example, students' reported improvements in strategy use and confidence were compared with their test performance and questionnaire results, leading to a more comprehensive and credible interpretation of the intervention's effects.

Overall, the use of semi-structured interviews significantly enhanced the depth, credibility, and explanatory power of the study by capturing students' lived experiences and providing insights that complemented and clarified the quantitative findings.

3.8 Procedures of the Experiment and Data Collection Procedure

The intervention in this study was carefully designed to examine the effects of explicit cognitive reading strategy instruction on first-year students' reading comprehension, reading self-efficacy, motivation, and perceptions at Addis Ababa University. The overall design integrated both instructional implementation and systematic data collection procedures in order to provide a comprehensive understanding of the intervention's impact. The primary aim was to enhance students' reading comprehension through structured training in cognitive reading strategies while simultaneously fostering greater awareness, motivation, and self-efficacy in reading academic texts. Specifically, the intervention sought to improve students' reading comprehension performance, increase their awareness and use of diverse reading strategies across pre-reading, while-reading, and post-reading phases, and promote metacognitive skills, confidence, and sustained motivation for reading.

To achieve these objectives, the researcher developed both a teacher training guideline and a student learning manual based on relevant literature in reading strategy instruction, cognitive development, and second language acquisition. The student manual included theoretical explanations of reading comprehension processes, guided examples, and practical exercises based on five authentic reading passages. The instructional content was organized according to the three-phase model of reading instruction. In the pre-reading phase, students engaged in activating prior knowledge, predicting, previewing, and visualizing to build expectations about the text. During the while-reading phase, they practiced skimming, scanning, inferring, guessing meaning from context, and problem-solving to support real-time comprehension. In the post-reading phase, learners engaged in paraphrasing, summarizing, and reflecting on texts to consolidate understanding. These strategies were selected based on empirical evidence demonstrating their effectiveness in improving reading comprehension among EFL learners (Chamot & O'Malley, 1996; Desita, 2024). The intervention lasted for fourteen weeks, with two contact hours per week, totaling twenty-eight instructional hours.

The instructional process was guided by the Cognitive Academic Language Learning Approach (CALLA), which integrates content learning, language development, and explicit strategy instruction within a learner-centered framework. CALLA emphasizes active learning and metacognitive development through five instructional phases: preparation, presentation, practice, evaluation, and expansion. In the preparation phase, students' prior knowledge was activated through brainstorming and vocabulary activities. In the presentation phase, cognitive reading strategies were explicitly introduced and modeled. The practice phase provided opportunities for students to apply strategies through individual, pair, and group reading tasks. The evaluation phase encouraged learners to reflect on their comprehension processes and monitor strategy use, while the expansion phase promoted transfer of strategies to new contexts and independent reading tasks. This structured yet flexible approach ensured continuous engagement and progressive development of reading skills.

To ensure effective evaluation of the intervention, a multi-instrument approach was employed, combining quantitative and qualitative data sources. The reading comprehension test measured students' actual reading performance before and after the intervention. The reading motivation questionnaire assessed intrinsic and extrinsic motivational changes toward reading. The reading self-efficacy scale measured students' confidence in performing reading tasks of varying difficulty. Classroom observations documented students' engagement and strategy use during instructional sessions, while semi-structured interviews provided in-depth insights into students' perceptions, experiences, and reflections on the reading strategy training. Importantly, all instructional activities in the training manual were aligned with these instruments to ensure consistency between instruction and assessment, thereby strengthening the validity of triangulated findings.

The data collection process was conducted in three main phases: pre-training, while-training, and post-training. Prior to implementation, formal permission was obtained from the Addis Ababa University freshman program coordinator, and consultations were held with academic advisors and instructors to refine the research design and instruments. Ethical procedures were strictly followed, and students were informed about the purpose of the study, confidentiality, and voluntary participation.

In the pre-training phase, baseline data were collected using the reading comprehension test, reading motivation questionnaire, and reading self-efficacy scale administered to both experimental and control groups. These pre-intervention measures established group equivalence and provided a foundation for comparison. The experimental group was also oriented on cognitive reading strategies, including their definition, purpose, and application.

In the while-training phase, the experimental group received explicit cognitive reading strategy instruction, while the control group continued with conventional instruction based on the regular curriculum, which mainly included reading passages, vocabulary explanation, and comprehension questions without explicit strategy training. During this phase, classroom observations were conducted to record students' engagement, participation, and strategy use in real time. Informal feedback from students was also collected and used to make minor adjustments to instructional delivery.

The post-training phase involved re-administration of all quantitative instruments to measure changes in reading comprehension, motivation, and self-efficacy. In addition, semi-structured interviews were conducted with selected students from the experimental group to gain deeper insights into their experiences, perceived benefits, challenges, and the impact of strategy instruction on their motivation and confidence. These interviews were conducted after the intervention to allow students sufficient time to reflect on their learning experiences in a meaningful way.

Throughout the study, several measures were taken to ensure validity and minimize bias. Pre- and post-tests were administered under standardized conditions in separate classrooms, with trained invigilators supervising the sessions. Test papers were coded to maintain anonymity and to blind scorers to group assignments. Students were assured that their performance would not affect academic grades, reducing anxiety and encouraging authentic responses. Adequate time was provided for completion of all instruments. Where necessary, minor scheduling adjustments were made to accommodate students who were absent during initial sessions, ensuring fairness and completeness of data collection.

Overall, the integration of structured cognitive strategy instruction with systematic data collection procedures allowed for a rigorous evaluation of the intervention. The combination of CALLA-guided instruction, aligned assessment instruments, classroom observation, and qualitative interviews ensured methodological triangulation. This comprehensive approach provided a holistic understanding of the effects of cognitive reading strategy instruction on students' cognitive, affective, and behavioral outcomes, thereby strengthening the credibility, depth, and interpretability of the findings.

3.9 Teaching Material Preparation

The researcher developed a structured and context-sensitive training manual specifically for students in the experimental group, with the aim of supporting the effective implementation of cognitive reading strategy instruction. The preparation of this manual was guided by both theoretical and practical considerations, ensuring alignment with the instructional framework, course materials, and the instruments used to evaluate the intervention. In particular, the design of the manual was closely linked with the reading comprehension test (25 items), reading motivation questionnaire (43 items), reading self-efficacy scale (14 items), classroom observation checklist (20 items), and semi-structured interviews, thereby strengthening the coherence between teaching, learning, and assessment.

The training manual was primarily based on the course material *Communicative English Skills II (EnLa1012).* The researcher deliberately focused on this module for several important reasons. First, *Communicative English Skills II* is a core and compulsory course offered to all first-year university students in Ethiopian higher education institutions, including Addis Ababa University. This makes it highly relevant to the target population of the study—freshman students—ensuring that the intervention is grounded in their actual academic context. Second, the module is designed to develop students' communicative competence by integrating reading with other language skills such as listening, speaking, and writing. It is relatively better than C*ommunicative English Skills I in terms of authenticity.* As a result, it provides a suitable platform for embedding reading strategy instruction within meaningful and authentic learning activities.

Communicative English Skills II can be considered more authentic and engaging compared to Communicative Skills I because its chapters incorporate relatively interesting, relevant, and thought-provoking topics that reflect real-life issues and contemporary concerns. While Communicative English Skills I tend to be less authentic and focus more on basic language structures and introductory content, Communicative Skills II goes further by presenting materials that stimulate critical thinking and meaningful interaction.

Each reading material in Communicative Skills II is carefully selected and observed not only for content understanding but also for the practice of reading strategies. Students are encouraged to actively apply techniques such as skimming, scanning, predicting, and analyzing while engaging with the texts. This makes the learning process more practical and skill-oriented rather than purely theoretical.

The organization of the units also contributes to its authenticity. Unit 1 (Life Skills) introduces learners to essential everyday competencies, making the content directly applicable to real-life situations. Unit 2 (Speculations about Future Science) expands students' imagination and critical thinking by exploring possibilities about scientific and technological advancements. Chapter 3 (Environmental Protection) raises awareness about global environmental issues, encouraging responsibility and reflection. Chapter 4 (Indigenous Knowledge) highlights local wisdom and cultural practices, helping learners appreciate traditional knowledge systems. Finally, Chapter 5 (Cultural Heritages) focuses on preserving and understanding cultural identity, which is both educational and socially relevant.

Overall, the variety and relevance of these topics make Communicative Skills II more authentic, as it connects language learning with real-world contexts while simultaneously strengthening students' reading strategies and communicative competence.

Third, the researcher selected this module to ensure content consistency between the experimental and control groups. By using the same instructional materials for both groups, the study minimized potential confounding variables related to differences in content, difficulty level, or topic familiarity. This decision strengthens the internal validity of the study, as any

observed differences in outcomes can be more confidently attributed to the intervention rather than to variations in teaching materials.

Fourth, the module contains a variety of reading passages and activities that can be adapted to incorporate cognitive reading strategies, making it a practical and flexible resource for instructional design. Although the module has certain limitations—particularly in terms of cultural relevance and authenticity of some texts—it still provides a structured foundation that can be enhanced through strategic modifications. In this study, the researcher addressed these limitations by supplementing and adapting the materials to better suit students' background knowledge and interests, while maintaining alignment with the original curriculum.

In developing the manual, the researcher selected reading passages from five units of the course module and designed interactive lesson plans and PowerPoint presentations to support daily instruction. These materials incorporated both theoretical explanations and practical activities, enabling students to understand not only *what* the strategies are, but also *why*, *when*, and *how* to apply them. The activities were carefully structured to promote engagement, comprehension, and active participation, which were later monitored through the classroom observation checklist.

The manual focused specifically on cognitive reading strategies, following the classification suggested by Chamot (1996). Although different taxonomies of reading strategies exist, cognitive strategies were selected due to their comprehensive nature and their direct relevance to reading comprehension processes. These strategies included prediction, activating prior knowledge, visualizing, skimming, scanning, inferencing, paraphrasing, summarizing, and problem-solving. The emphasis on these strategies was consistent with the skills assessed in the reading comprehension test, ensuring that instruction directly supported measurable learning outcomes.

The manual consisted of two major components: a theoretical section and a practical section. The theoretical component introduced key concepts such as the nature of reading, reading comprehension, principles of teaching reading, schema theory, and the role of cognitive strategies in comprehension. This section aimed to build students' conceptual understanding and

awareness, which also contributed to enhancing their confidence and beliefs about reading, as later measured by the self-efficacy scale.

The practical component included five reading passages, each accompanied by visuals and a range of activities structured around the three stages of reading: pre-reading, while-reading, and post-reading. These activities were designed to promote active engagement and strategy use. For instance, pre-reading tasks focused on prediction and activating prior knowledge; while-reading tasks emphasized skimming, scanning, and inference; and post-reading tasks involved paraphrasing and summarizing. These activities not only reinforced comprehension but also encouraged reflection and interaction, thereby contributing to improvements in students' motivation, as captured by the reading motivation questionnaire.

Initially, the researcher prepared nine authentic reading passages with accompanying activities. However, based on feedback from the research advisor and senior scholars, the number of passages was reduced and aligned more closely with the existing course material to ensure comparability between the experimental and control groups.

Furthermore, the researcher enriched the existing activities by adding questions and objectives that specifically targeted the cognitive strategies emphasized during the training. For example, additional tasks requiring students to paraphrase and summarize texts were included to strengthen higher-order comprehension skills. These enhancements were particularly relevant to the constructs measured in the reading comprehension test and were also reflected in students' responses during the semi-structured interviews, where they described how these activities helped them better understand texts.

The *Communicative English Skills II (EnLa1012)* module, which served as the foundation for the training manual, is intended to develop students' ability to use English effectively for both academic and social purposes. It integrates multiple language skills and encourages active learning through meaningful tasks and reflection. Despite some limitations in contextual relevance, the module remains a pedagogically sound and institutionally relevant resource, making it an appropriate choice for this study.

In conclusion, the preparation of the training manual was a critical component of the intervention, as it ensured that instruction was theoretically grounded, contextually relevant, and practically effective. By deliberately selecting *Communicative English Skills II (EnLa1012)* and aligning it with the five research instruments, the study established a strong connection between teaching, learning, and assessment. This alignment not only enhanced the internal consistency of the study but also contributed to the overall validity and reliability of the findings.

3.10 Data Analysis

The analysis followed a sequential mixed-methods approach, beginning with quantitative data and followed by qualitative data, in line with the order of instruments used in the study. Quantitative data obtained from the reading comprehension tests, reading motivation questionnaire, and self-efficacy scale were first analyzed to examine baseline performance and the effects of the intervention. Descriptive statistics, including mean (M) and standard deviation (SD), were computed to summarize students' performance in both the experimental and control groups. The mean was used to determine the average level of performance, motivation, and self-efficacy, while the standard deviation indicated the degree of variability among participants.

In addition to descriptive analysis, inferential statistics were employed to determine whether observed differences were statistically significant. Mann–Whitney U test were used to compare the performance of the experimental and control groups, while Wilcoxon Signed Rank t-tests were applied to examine within-group changes between pre-test and post-test scores. These tests helped determine whether the cognitive reading strategy intervention had a statistically significant effect on students' reading comprehension, motivation, and self-efficacy (Creswell, 2007). Prior to conducting these analyses, assumptions of normality, homogeneity of variance, and independence of observations were carefully checked to ensure the appropriateness of the statistical procedures.

To further measure the magnitude of the intervention's effect, Cohen's d effect size was calculated for all major variables. This allowed the researcher to determine not only whether differences were statistically significant but also whether they were practically meaningful. For

example, small, moderate, or large effect sizes provided clearer evidence of the instructional impact of cognitive reading strategy training on students' reading development.

The reading comprehension test (25 items) was analyzed using both descriptive and inferential statistics. Mean scores and standard deviations were computed to summarize students' reading performance in both groups across pre-test and post-test administrations. Comparisons of these results allowed the researcher to identify improvements in literal, inferential, and evaluative comprehension skills. Effect size analysis further indicated the strength of the intervention in improving students' ability to construct meaning from texts.

The reading motivation questionnaire (43 items) was analyzed by calculating mean scores and standard deviations for both intrinsic motivation (such as curiosity, involvement, and interest) and extrinsic motivation (such as grades, competition, and compliance). Changes between pre-test and post-test scores were examined to determine whether students' motivation toward reading improved following the intervention. In addition, effect sizes were computed to assess the practical significance of motivational changes. The results were interpreted to show whether cognitive reading strategy instruction contributed to sustained engagement and interest in reading academic texts.

The reading self-efficacy scale (14 items) was analyzed in a similar manner using descriptive statistics and effect size calculations. Mean scores reflected students' perceived confidence in completing reading tasks, while standard deviations showed the variation in confidence levels among participants. Pre-test and post-test comparisons provided evidence of changes in students' belief in their reading abilities, and Cohen's d values indicated the strength of these changes. This analysis helped determine whether strategy instruction enhanced learners' confidence in handling reading tasks of varying difficulty.

Qualitative data from semi-structured interviews were analyzed using thematic analysis following an inductive approach. The interview recordings were transcribed verbatim, and the researcher carefully read the transcripts multiple times to become familiar with the data. Initial codes were generated to identify meaningful units related to students' experiences with cognitive reading strategies, changes in motivation, and self-efficacy. These codes were then organized

into broader categories and themes that reflected recurring patterns across participants' responses. Themes were refined through iterative comparison to ensure consistency and relevance to the research objectives.

The qualitative findings were then integrated with quantitative results to provide a more comprehensive interpretation of the data. For instance, improvements in reading comprehension scores were compared with students' reported experiences of using strategies such as summarizing and inferring. Similarly, changes in motivation and self-efficacy scores were interpreted alongside interview responses describing increased confidence, engagement, and perceived usefulness of the strategies. This triangulation of data sources strengthened the validity and depth of the findings.

Overall, the combination of descriptive statistics, inferential tests, effect size analysis, and thematic qualitative interpretation enabled a comprehensive evaluation of the intervention. The integration of quantitative and qualitative findings provided a holistic understanding of how cognitive reading strategy instruction influenced students' reading comprehension, motivation, self-efficacy, and classroom engagement.

3.11 Validity and Reliability

Ensuring the validity and reliability of the research instruments and procedures was a central concern in this study, as both quantitative and qualitative data were collected to examine the impact of explicit reading strategy instruction on students' reading comprehension, motivation, and self-efficacy and perceptions. To strengthen validity and reliability, the researcher employed multiple strategies, including pilot testing, expert review, triangulation, careful instrument design, and standardized administration procedures. According to Creswell (2005) and Dorney (2007), pilot studies serve as a critical step in testing the suitability of data collection methods and instruments before the main study, allowing for necessary revisions to enhance clarity, accuracy, and relevance. In this study, the pilot test was conducted with 20 sample first-year students from a different section whom I was teaching but with similar characteristics to the main study participants. The objectives of the pilot were to determine whether the instruments effectively measured the intended constructs, were understandable to participants, and provided

reliable and valid data to support the main study. Feedback from participants during the pilot included clarifying ambiguous questions, rewording items, and adjusting vocabulary to improve comprehension. Participants were encouraged to provide verbal or written feedback, and the instruments were revised accordingly to increase their clarity and appropriateness.

Content validity was established by aligning all instruments with the study's research objectives, and theoretical framework. Besides, the course material used by two groups was the same. The reading comprehension test, reading motivation questionnaire, reading self-efficacy scale, and semi-structured interview guide were adapted and developed based on established literature, including TOEFL iBT standards and the Reading Motivation Questionnaire by Wigfield and Guthrie (1997). To further strengthen content validity, the instruments were reviewed by two experienced EFL PhD holders and the study supervisors, whose feedback resulted in modifications such as simplifying complex items, underlining key pronouns, and replacing phrasal verbs with simpler alternatives. These adjustments ensured that all items accurately reflected the intended constructs and were accessible to the participants.

Reliability was addressed through multiple strategies. Internal consistency of the quantitative instruments was measured using Cronbach's alpha, with acceptable values ranging between 0.60 and 0.80 (Wim et al., 2008). In this study, the reading self-efficacy scale, for example, demonstrated a high Cronbach's alpha of 0.8, indicating strong internal consistency. The effect size provides an indication of the practical significance of the findings by showing how strong the relationship or difference is, regardless of sample size. According to Cohen (1988)**,** effect sizes can be interpreted using conventional benchmarks, where values around 0.20 indicate a small effect**,** 0.50 represent a medium effect**,** and 0.80 or above reflect a large effect**.** In addition, test-retest reliability was computed for the reading comprehension test to determine consistency over time. The test was administered twice to the same group of participants at an interval of one months, and the Pearson r correlation coefficient between the two administrations was 0.865, indicating a strong correlation and confirming the reliability of the instrument (Cozby & Bates, 2020; Karl, 2012). The researcher also ensured homogeneity in the length of items, avoided ambiguous expressions, carefully arranged items, and prevented identifiable patterns that might influence responses.

To enhance internal validity, potential sources of bias and experimental threats were carefully considered and mitigated (Muijs, 2004). These included maturation effects, pre-testing effects, testing situations, attrition, compensatory rivalry, diffusion, experimenter bias, history, post hoc bias, statistical regression, and selection-maturation interactions.

Maturation effects, pre-testing effects, testing situations, attrition, compensatory rivalry, diffusion of treatment, experimenter bias, history, post hoc bias, statistical regression, and selection–maturation interactions are major threats to internal validity, which refers to the extent to which the observed changes in the dependent variable can be confidently attributed to the intervention rather than to other factors. (Creswell & Creswell, 2018; Fraenkel et al., 2019) Maturation effects threaten validity because participants may naturally develop or change over time; pre-testing effects occur when taking a pretest influences later performance; testing situations introduce bias through differences in the testing environment; attrition threatens validity when participants drop out unequally across groups; compensatory rivalry occurs when control group members work harder because they know they are not receiving the treatment; diffusion happens when the control group is exposed to the intervention; experimenter bias arises when researchers' expectations influence participants or data interpretation; history effects occur when external events influence the outcomes during the study period; post hoc bias emerges when researchers interpret findings to fit expectations after the results are known; statistical regression occurs when extreme scores naturally move toward the average on subsequent testing; and selection–maturation interactions arise when groups differ in their rates of development over time. If these threats are not controlled, the credibility of the study findings is weakened because the researcher cannot confidently conclude that the intervention itself caused the observed outcomes. (Fraenkel et al., 2019; McMillan, 2020).

Measures to reduce these threats included administering pre-tests and post-tests for control and experimental groups in separate morning sessions with different instructors, employing trained assistant data collectors to administer tests without knowledge of participants' group assignments, and informing participants that their regular class grades would not be affected by the study outcomes. These steps helped reduce the potential influence of the researcher and ensured fairness and consistency across groups.

Triangulation and peer review were employed to further strengthen validity. Multiple data sources—tests, questionnaires, observation checklists, and interviews—provided cross-verification of findings, enhancing the credibility and trustworthiness of the results (Creswell, 2013; Yalew, 2009). For example, observed improvements in reading comprehension were supported by increases in self-efficacy and motivation scores, as well as by students' reflections during interviews. Peer review involved the advisor and other colleagues evaluating raw data, coding procedures, and emerging themes to ensure accuracy, coherence, and alignment with research objectives (Falk & Blumenreich, 2005). Feedback from reviewers informed revisions to ambiguous items, instructions, and administration procedures, thereby increasing both validity and reliability.

During the intervention, explicit reading strategy instruction was delivered according to the CALLA model, with students in the experimental group receiving structured training in prediction, skimming, scanning, inference, paraphrasing, summarizing, and problem-solving across pre-reading, while-reading, and post-reading stages. Training fidelity was maintained through instructional checklists, demonstrations, and continuous feedback, ensuring that the intervention was implemented as designed. The treatment lasted fourteen weeks, with 28 hours with instructional sessions of 2 hours each, while the control group continued with conventional teaching methods. Pre-tests were administered prior to the intervention and post-tests were conducted one week after the intervention, providing the basis for measuring the effects of strategy instruction on reading comprehension and related outcomes.

In summary, the combination of pilot testing, expert reviews, triangulation, standardized administration, and both internal consistency and test-retest reliability analyses ensured that the instruments and procedures were valid, reliable, and suitable for addressing the study's research questions. These measures enhanced the credibility, accuracy, and replicability of the study, providing a robust foundation for interpreting the effects of explicit reading strategy instruction on first-year students' reading comprehension, motivation, and self-efficacy.

3.12 Test of Normality

The choice between applying parametric tests (such as the t-test) and non-parametric alternatives (such as the Mann–Whitney U test) depends primarily on whether the assumption of normality is satisfied. The assumption of normality for both the experimental and control groups was examined using the Kolmogorov–Smirnov and Shapiro–Wilk tests. Since the sample sizes for the experimental group (n = 48) and the control group (n = 46) were less than 50, the Shapiro–Wilk test was primarily considered in determining whether the data were normally distributed. The results of the normality tests indicated that the distributions of scores significantly deviate from normality ($p > .05$), suggesting that the assumption of normality was not met for the relevant datasets.

For the experimental group, the pre-test scores showed a significant result in the Shapiro–Wilk test ($W = 0.940$, $p = 0.016$), indicating deviation from normality. Similarly, the post-test scores also revealed a highly significant result ($W = 0.896$, $p = 0.000$), confirming that the post-test data were not normally distributed. The Kolmogorov–Smirnov test supported these findings, as both pre-test ($p = 0.001$) and post-test ($p = 0.000$) results were statistically significant.

Likewise, for the control group, the Shapiro–Wilk test indicated that both pre-test ($W = 0.885$, $p = 0.000$) and post-test ($W = 0.894$, $p = 0.001$) scores significantly deviated from normality. The Kolmogorov–Smirnov test further confirmed these results, with both pre-test and post-test significance values reported as $p = 0.000$.

Since all p-values for both groups were less than the 0.05 level of significance, the assumption of normality was violated for all sets of scores (experimental pre-test, experimental post-test, control pre-test, and control post-test). Therefore, non-parametric statistical tests were considered more appropriate for subsequent data analysis. Specifically, the Wilcoxon Signed-Rank Test was recommended for comparing pre-test and post-test scores within each group, while the Mann–Whitney U Test was recommended for comparing differences between the experimental and control groups.

Assumptions of the Mann-Whitney U test were checked before the analysis was made. The data were analyzed using the Mann–Whitney U test to compare the results of the control and

experimental groups. Prior to conducting the test, its underlying assumptions were carefully considered. First, the dependent variable (test scores) was measured at an ordinal/continuous level. Second, the independent variable consisted of two independent groups (control and experimental), with different participants in each group. Third, the observations were independent, as each participant contributed only one score to the analysis. Fourth, although the Mann–Whitney U test does not require normal distribution, it assumes that the distributions of the two groups have a similar shape when interpreting differences in mean ranks.

After confirming that these assumptions were satisfied, the Mann–Whitney U test was conducted. The results indicated that there was no statistically significant difference between the control and experimental groups. This suggests that the difference in performance between the two groups was not statistically significant at the 0.05 level. Therefore, the null hypothesis was retained, indicating that the intervention did not produce a statistically significant difference compared to the control condition.

3.13 Reliability Test

Table 1: Reliability Test for Reading Comprehension Test

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.808	.829	**25**

As shown in the above table, the reliability of the instrument was evaluated using Cronbach's Alpha coefficient. The analysis indicated that the Cronbach's Alpha value was 0.808, while the Cronbach's Alpha based on standardized items was slightly higher at 0.829 for the twenty five items included in the scale.

In reliability analysis, a Cronbach's Alpha value above 0.70 is generally regarded as acceptable, whereas values above 0.80 indicate good internal consistency. Therefore, the obtained alpha

value of 0.808 suggests that the instrument used in this study demonstrates a satisfactory level of reliability. This finding implies that the Twenty five items included in the test are closely related and consistently measure the same underlying construct.

The standardized Cronbach's Alpha value (0.829) is marginally higher than the unstandardized alpha coefficient. This slight difference indicates that when the items are standardized to account for differences in their variance, the internal consistency of the scale improves somewhat. This further supports the reliability of the measurement instrument.

Overall, the reliability analysis indicates that the instrument used in the RCT demonstrates good internal consistency. The Cronbach's Alpha value of 0.808 and the standardized alpha value of 0.829 confirm that the measurement tool is sufficiently reliable for research purposes and can be confidently used to assess the outcomes of the study.

3.14 Ethical Considerations

Ethical considerations represent a fundamental component of educational research because they provide the principles and procedures necessary to protect participants, maintain research integrity, and ensure that knowledge is generated responsibly. According to Sikes (2004), research ethics enables researchers to understand and apply fundamental principles that guide ethical decision-making throughout the research process. Ethical practice requires researchers to avoid actions, behaviors, or communication that may harm participants physically, psychologically, socially, or academically. Therefore, ethical considerations are not limited to obtaining formal approval but involve continuous responsibility toward participants throughout the entire research process, from the planning stage to data collection, analysis, and reporting.

In the present study, the researcher made every effort to follow established ethical principles and procedures in conducting the research. Since the study involved human participants and employed an experimental intervention, particular attention was given to protecting participants' rights, ensuring voluntary participation, maintaining confidentiality, and minimizing any possible risks associated with participation. The researcher recognized that ethical responsibility is essential not only for protecting participants but also for enhancing the credibility and trustworthiness of the research findings.

Leary (2001) emphasizes that researchers have a responsibility to protect the rights, dignity, and welfare of research participants. One of the central ethical requirements highlighted by Leary is obtaining informed consent, which ensures that participants understand the nature, purpose, procedures, potential benefits, and possible risks of the research before agreeing to participate. In accordance with this principle, the researcher obtained formal permission from Addis Ababa University before conducting the study. A cover letter was requested from the university to obtain official approval and authorization for data collection within the research setting.

In addition to institutional approval, informed consent was obtained from all study participants. Before the beginning of the intervention and data collection activities, participants were provided with clear information regarding the purpose of the study, the procedures involved, their expected participation, and their rights as research participants. The researcher explained that participation was entirely voluntary and that participants had the right to withdraw from the study at any stage without experiencing any negative consequences. This process ensured that participants made independent decisions based on adequate understanding of the research.

The researcher also maintained openness and honesty with participants throughout the research process. Students were informed that the purpose of the study was to examine the effectiveness of cognitive reading strategy instruction and that their participation would contribute to improving understanding of EFL reading instruction. Providing accurate information helped establish trust between the researcher and participants and encouraged active and meaningful participation. As Leary (2001) notes, informed consent is not merely a procedural requirement but a demonstration of respect for participants' autonomy, privacy, and personal choices.

Confidentiality and anonymity were also given serious consideration in the study. The researcher ensured that participants' personal information and responses were protected and were not disclosed to unauthorized individuals. Data collected through tests, questionnaires, interviews, and observations were handled confidentially and used solely for academic research purposes. Participants' names were not included in research reports; instead, codes or pseudonyms were used where necessary to protect their identities. This approach was particularly important because students' responses regarding motivation, self-efficacy, and perceptions involved personal reflections that required a safe and supportive environment.

The researcher also considered the ethical implications associated with experimental research designs. Experimental studies require careful attention because the researcher introduces an intervention that may influence participants' experiences and outcomes. According to ethical standards in experimental research, two major concerns require consideration. The first relates to potential researcher influence or experimenter bias, where the researcher's expectations may unintentionally affect the implementation of the intervention or interpretation of findings. The second concerns the ethical treatment of participants who receive the intervention and those who do not, particularly regarding fairness, equal opportunities, and access to educational benefits.

To minimize experimenter bias, the researcher attempted to maintain objectivity throughout the research process. Standardized procedures were followed during the implementation of the intervention, administration of assessment instruments, and collection of qualitative data. The researcher also incorporated multiple sources of evidence, including quantitative tests, questionnaires, interviews, and classroom observations, to reduce dependence on a single source of information and strengthen the credibility of the findings through triangulation.

Regarding participant treatment, the researcher was careful to ensure that random selection and group assignment did not create embarrassment, discomfort, or feelings of disadvantage among participants. Students were informed that group assignment was part of the research design and was not related to their academic ability or personal characteristics. The researcher maintained respectful communication with both experimental and control groups and ensured that all participants continued to receive their regular academic instruction.

The researcher also considered the ethical issue of unequal access to the intervention. Since the experimental group received additional cognitive reading strategy instruction, steps were taken to ensure that the control group was not unfairly disadvantaged. The researcher maintained normal instructional procedures for the control group and considered the possibility of sharing the intervention materials or providing similar training opportunities after completion of the study if required. This consideration reflected the researcher's responsibility to balance scientific requirements with fairness toward all participants.

During the qualitative data collection process, particularly interviews and classroom observations, the researcher ensured that participants felt comfortable expressing their opinions freely. Students were encouraged to provide honest feedback regarding their experiences with cognitive reading strategy instruction, including both positive aspects and challenges they encountered. The researcher avoided influencing participants' responses and emphasized that there were no right or wrong answers. This approach helped generate authentic qualitative data while respecting participants' perspectives.

The researcher also maintained ethical responsibility during data management and analysis. Accurate procedures were followed to ensure that collected data were recorded, stored, analyzed, and reported honestly. The researcher avoided fabrication, manipulation, or selective reporting of findings and ensured that conclusions were based on the actual evidence obtained from participants. Maintaining academic integrity throughout the research process was considered essential for producing trustworthy and meaningful findings.

Furthermore, the researcher remained aware of the importance of reflexivity in educational research. Since the researcher was directly involved in implementing the intervention, continuous reflection was necessary to recognize possible personal assumptions or expectations that could influence the research process. By maintaining awareness of the researcher's role and using systematic procedures for data collection and analysis, efforts were made to minimize subjective influence and enhance the reliability of the study.

In summary, ethical considerations were integrated throughout all stages of the research process. The researcher obtained institutional approval, secured informed consent, protected participants' confidentiality, ensured voluntary participation, minimized potential harm, reduced researcher bias, and maintained integrity in data collection and analysis. These ethical practices ensured that the rights and welfare of participants were protected while also strengthening the credibility and trustworthiness of the research outcomes. By adhering to ethical principles, the study was conducted in a manner that respected participants and contributed responsibly to knowledge development in the field of EFL reading instruction.

3.15 Lessons Learned from the Pilot Study

The pilot study served as an essential preparatory stage for refining the methodological procedures, research instruments, and practical arrangements of the main study. As emphasized by Nursing Standard (2002), pilot studies provide researchers with valuable opportunities to identify potential weaknesses before implementing the full-scale investigation. Specifically, pilot studies enable researchers to anticipate possible challenges that may threaten the successful completion of the research, identify areas where research protocols may not be effectively followed, examine practical difficulties associated with data collection procedures, and determine whether proposed instruments are appropriate, understandable, and manageable for participants. Therefore, the pilot study in the present research was not merely a preliminary exercise but a critical process of methodological evaluation, adjustment, and improvement. Based on the experiences gained from the pilot study, several modifications were introduced to strengthen the reliability, validity, and feasibility of the main study.

One of the major lessons obtained from the pilot study concerned the allocation of sufficient time for administering the reading comprehension tests. During the pilot phase, it was observed that a considerable number of participants were unable to complete both the pretest and posttest within the initially allocated period of 40 minutes. Although an additional ten minutes was provided during the pilot administration, some students still experienced difficulties completing all test items within the extended time. This challenge was particularly evident among students who demonstrated slower reading speed and required additional time to process academic texts and formulate answers. Incomplete responses created methodological concerns because excluding unfinished responses could reduce the representativeness of the data and potentially influence the interpretation of students' actual reading abilities.

Based on this observation, the researcher decided to extend the duration of both the pretest and posttest to one hour in the main study. This adjustment was made to ensure that participants had adequate time to demonstrate their reading comprehension abilities without being excessively constrained by time limitations. The modification was considered important because reading comprehension assessment should primarily measure learners' ability to understand and interpret texts rather than their speed of completing examination tasks. Providing sufficient time was

therefore expected to enhance the validity of the assessment by reducing unnecessary pressure and allowing participants to demonstrate their actual performance more accurately.

Another important lesson learned from the pilot study was related to the organization and timing of data collection activities. During the pilot implementation, the researcher observed that some students arrived late for scheduled sessions, particularly students who were not living in university dormitories. This issue was more common among students from the Addis Ababa City Administration, who were required to remain at home rather than reside on campus. Such delays affected the smooth implementation of reading tests and interviews and highlighted the importance of considering students' personal circumstances when planning research activities.

Consequently, the researcher recognized the necessity of developing a more flexible and participant-sensitive schedule for the main study. The timing of assessments, interviews, and intervention sessions was carefully coordinated with students to minimize absenteeism and ensure maximum participation. This experience reinforced the importance of considering contextual realities within educational research, as logistical issues unrelated to the research objectives can influence participant engagement and the quality of collected data.

The pilot study also provided valuable insights regarding the duration and structure of the intervention. Initially, the researcher planned to complete the cognitive reading strategy training within an eleven-week period. However, during the pilot implementation, it became apparent that the planned timeframe was insufficient to cover all theoretical explanations, practical applications, guided exercises, and opportunities for reflection effectively. Since cognitive reading strategies require gradual development through repeated exposure and practice, compressing the intervention into a limited period risked reducing students' opportunity to internalize and apply the strategies.

As a result, the researcher revised the intervention schedule and extended the training period to utilize the entire first semester. The intervention was integrated alongside other components of the English language module, including grammar, speaking, writing, and listening activities. Each week, two hours were allocated specifically for cognitive reading strategy training, while the remaining instructional time was devoted to other language skills. This modification allowed

the researcher to maintain a balanced instructional approach while ensuring sufficient time for explicit strategy teaching, classroom practice, and learner reflection.

However, despite extending the intervention period, the researcher was unable to complete interviews with three participants during the planned schedule. To address this limitation, alternative arrangements were made to conduct the interviews after the participants completed their final examinations. This experience highlighted the importance of initiating qualitative data collection activities earlier and avoiding concentration of research tasks toward the end of the academic semester when students experience increased academic demands. Consequently, the researcher became more aware of the need for careful sequencing of research activities to ensure complete and timely data collection.

The pilot study also provided important lessons regarding the clarity and appropriateness of research instruments, particularly questionnaire items. During the pilot phase, participants were instructed to identify unclear items by circling them and informing the researcher if additional clarification was required. However, due to time constraints, it was not possible to provide individual explanations for every participant who experienced difficulty interpreting specific items. Nevertheless, analysis of the circled items enabled the researcher to identify statements that were potentially ambiguous or difficult for participants to understand.

Based on this feedback, several modifications were made to improve the clarity and accessibility of questionnaire items for the main study. The researcher revised ambiguous statements by using simpler and more commonly understood language. Furthermore, complex grammatical structures and phrasal verbs were replaced with clearer expressions and single verbs wherever possible. These modifications were necessary because unclear wording may introduce measurement error and negatively affect the validity and reliability of research instruments. The experience reinforced the importance of ensuring that instruments measure participants' intended responses rather than their ability to interpret complicated language.

A further issue identified during the pilot study concerned the quality of the reading comprehension test items. Specifically, the researcher discovered that item two in the pretest did not have an appropriate answer based on the information presented in the related paragraph. This

problem demonstrated the importance of carefully reviewing all assessment items before their use in the main study. Poorly constructed test items may threaten the validity of findings by measuring test-taking difficulties rather than actual comprehension ability.

Following this experience, the researcher revised problematic test items and conducted additional checks to ensure alignment between reading passages and questions. Participants were also encouraged to provide feedback regarding any difficulties they encountered while completing the comprehension test. Creating an open and supportive environment allowed students to express challenges related to the assessment without fear of negative consequences. Their feedback revealed that although students considered the test beneficial, some experienced difficulty during the pretest because they lacked sufficient awareness of effective reading strategies. This observation further supported the rationale for implementing cognitive reading strategy instruction as the central intervention of the main study.

The pilot study also influenced the researcher's decision regarding the expansion of data collection methods. Initially, the researcher relied mainly on participants' self-reported behaviors and responses. However, the pilot experience demonstrated that self-reports alone might not provide a complete picture of students' actual engagement with reading strategies during classroom activities. Therefore, the researcher decided to strengthen the main study through classroom observation conducted by an independent observer. The purpose of observation was to obtain direct evidence regarding students' behaviors and the extent to which the intervention was implemented according to established criteria.

To facilitate this process, the researcher planned to train an additional individual to observe classroom sessions while the researcher focused on delivering the intervention. This decision was important because simultaneously conducting training and monitoring classroom behaviors could limit the researcher's ability to objectively evaluate implementation fidelity. The inclusion of classroom observation therefore enhanced the methodological rigor of the study by providing additional evidence for triangulating quantitative and qualitative findings.

Another significant lesson learned from the pilot study concerned data management and statistical analysis procedures. The researcher recognized that accurate data entry is a

fundamental requirement for producing valid research outcomes. Even minor errors, omissions, or incorrect coding during data entry can influence statistical results and lead to inaccurate conclusions. Therefore, greater attention was given to data organization, verification, and preparation before conducting statistical analyses in the main study.

Furthermore, the pilot study enhanced the researcher's understanding of statistical interpretation, particularly regarding the appropriate meaning of different statistical indicators. For example, the researcher recognized that the interpretation of p-values differs depending on the statistical procedure being examined. In normality tests, a higher p-value indicates that the assumption of normal distribution is more likely to be satisfied, whereas statistical significance testing and reliability analysis require different interpretations. Similarly, the researcher became aware of the importance of selecting appropriate statistical tests based on data characteristics. If the assumption of normality was violated, the researcher planned to employ non-parametric alternatives, such as the Mann–Whitney U test, instead of parametric tests such as the independent samples t-test.

The pilot study also highlighted the importance of using appropriate and reliable assessment instruments. The researcher recognized the value of employing standardized reading assessment materials and therefore sought permission from the Educational Testing Service to utilize TOEFL iBT practice reading materials. The use of standardized assessment tools was considered beneficial because such instruments have undergone systematic development and validation procedures. For the main study, a multiple-choice format was selected because it was familiar to students, relatively efficient to administer, and allowed objective scoring procedures, thereby reducing potential researcher bias during marking and interpretation (Seid, 2012).

Furthermore, based on insights gained from the pilot study, the researcher expanded the scope of the main study by incorporating additional variables, including reading motivation, self-efficacy, and students' perceptions. The pilot findings suggested that reading development involves not only cognitive improvement but also changes in learners' psychological experiences, confidence, and engagement. Therefore, examining these variables provided a more comprehensive understanding of the effects of cognitive reading strategy instruction.

Overall, the pilot study provided essential methodological and practical lessons that strengthened the design of the main research project. It enabled the researcher to identify challenges related to time allocation, scheduling, intervention duration, instrument clarity, assessment quality, observation procedures, and data analysis. More importantly, the pilot study encouraged a reflective approach to research implementation by demonstrating that effective educational research requires continuous evaluation, adaptation, and responsiveness to contextual realities.

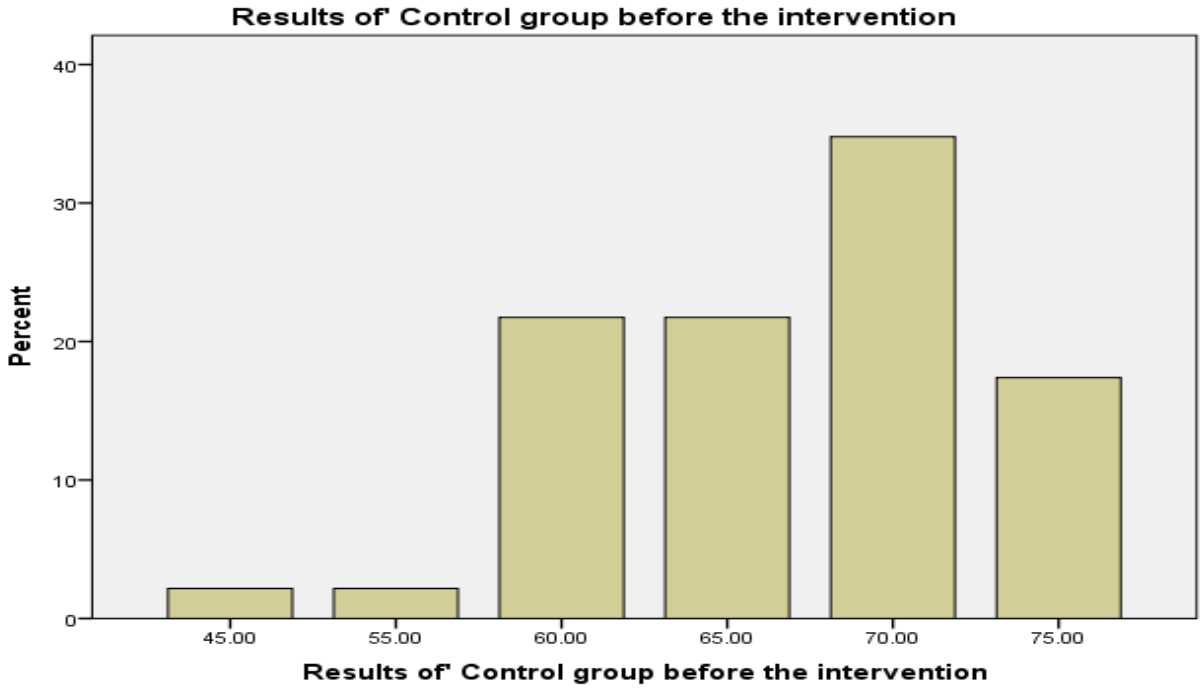
In summary, the pilot study contributed significantly to improving the quality and feasibility of the main study. The researcher gained valuable insights into the importance of careful planning, effective communication with participants, appropriate selection of instruments, accurate data management, and flexible decision-making throughout the research process. The lessons learned informed methodological adjustments that enhanced the reliability, validity, and credibility of the subsequent investigation. Therefore, the pilot study should be understood not simply as a preliminary activity but as an essential stage that strengthened the overall rigor and contribution of the research.

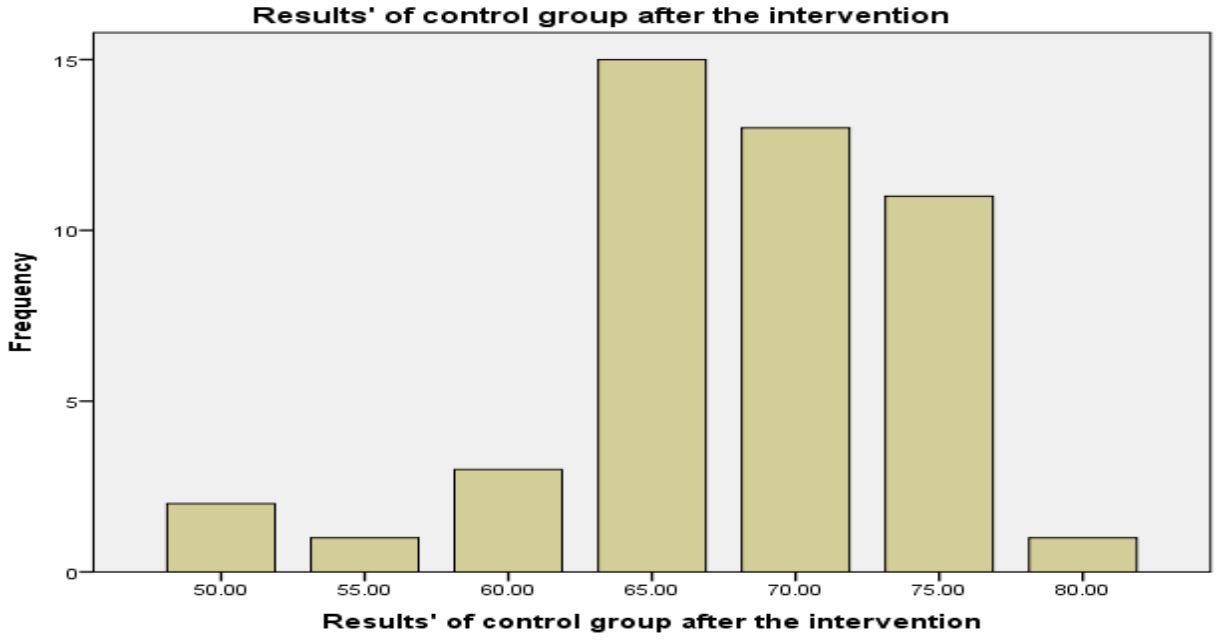
Chapter Four: Results

4.1 Results of Main Study

4.1.1. Analysis of Reading comprehension Test

Figure 3: The Pre and posttest Comprehension Scores of the Control Group





The distribution of the control group's pre-test reading comprehension scores shows that most students were concentrated in the middle range of the scoring scale prior to the intervention. This pattern indicates that the majority of learners demonstrated an average level of comprehension at the baseline stage. The largest proportion of students, approximately 35%, obtained a score of 70, making it the most frequently occurring score. A considerable number of students also scored slightly below this level, as reflected in the scores of 60 and 65, each representing nearly 22% of the group. In contrast, very few students achieved lower scores, with only about 3% receiving scores of 45 and 55, which suggests that weak comprehension was relatively uncommon among the participants.

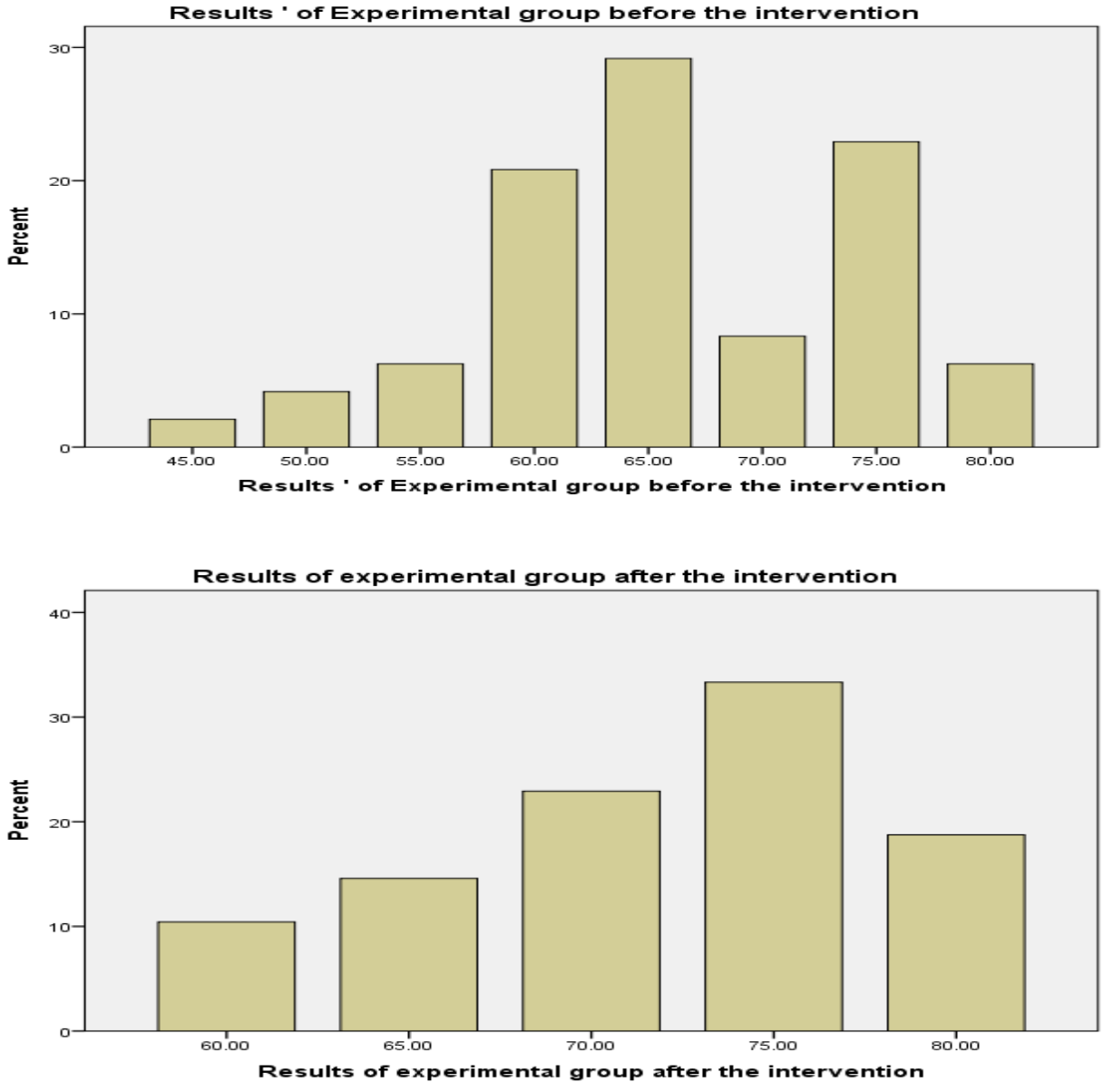
On the other hand, only around 18% of the students achieved a score of 75, indicating that a smaller proportion of learners performed at a higher level. Overall, the pre-test results reveal a fairly consistent pattern of performance, with most scores clustered around the middle range and only limited variation toward the lower or higher ends of the distribution.

The post-test distribution of the control group shows a pattern that closely resembles the pre-test results, as the majority of students continued to obtain scores within the middle range of the scale. Although scores of 70 and 75 remained relatively common, the most frequently occurring score shifted slightly to 65, which was obtained by the largest number of students. This suggests that most learners maintained a moderate level of reading comprehension following the intervention period. Only a small number of students received lower scores such as 50, 55, and 60, indicating that poor performance remained relatively rare within the group. Likewise, only one student achieved a score of 80, demonstrating that exceptionally high performance was uncommon. The concentration of scores within the range of 65 to 75 therefore reflects a relatively stable performance pattern rather than a notable upward shift in achievement.

A comparison of the pre-test and post-test results further indicates that the overall score distribution of the control group remained largely unchanged. Although there were minor variations in the most frequent score, there is no strong evidence to suggest a significant improvement in reading comprehension over time. The continued clustering of scores within the middle range across the two testing occasions suggests that students' comprehension levels remained relatively stable in the absence of a specific instructional intervention. Any minor

fluctuations in scores are therefore more likely to be attributed to natural variation or testing effects rather than to instructional influence. This stability in performance also strengthens the validity of comparisons with the experimental group, as it suggests that any improvements observed in that group are unlikely to be the result of general trends or repeated exposure to the tests alone.

Figure 4 : The Pre and posttest Comprehension Scores of the Experimental Group



The pre-test results of the experimental group indicate that most students' comprehension scores were concentrated in the middle range of the scale prior to the intervention. The most frequently occurring score was 65, which represented the largest proportion of participants and suggests that many students demonstrated an average level of comprehension at the beginning of the study. Scores of 60 and 75 were also relatively common, indicating that a considerable number of students performed slightly below and slightly above the modal score. In contrast, only a small proportion of students obtained lower scores of 45, 50, and 55, suggesting that very few learners had weak comprehension at the baseline stage. Similarly, exceptionally high performance was uncommon, as only a limited number of students achieved a score of 80.

Overall, the distribution reflects a relatively homogeneous group, with most students' performance clustered around the average level and fewer students positioned at the extreme low and high ends of the scale. This baseline pattern suggests that the experimental group began the study with a balanced and comparable level of reading comprehension, which provides an appropriate foundation for evaluating the impact of the instructional intervention during the post-test phase.

The post-test results of the experimental group, however, reveal a clear shift in the distribution of comprehension scores toward higher levels of performance following the intervention. The most frequent score increased to 75, representing the largest proportion of students and indicating that many learners achieved above-average comprehension after receiving the instructional treatment. Scores of 70 and 80 also appeared frequently, suggesting that a substantial number of students moved into higher achievement categories compared with the pre-test results. At the same time, lower scores were largely limited to 60 and 65 and represented a smaller proportion of the group, reflecting a decrease in the number of lower-performing students. Overall, the post-test distribution became more concentrated in the upper score range of 70–80, demonstrating a clear upward trend in comprehension performance. This pattern provides strong evidence that the intervention contributed positively to students' reading comprehension outcomes, as a larger proportion of learners progressed from average to higher levels of achievement.

A comparison of the pre-test and post-test results for the experimental group further highlights a substantial improvement in comprehension performance following the intervention. Before the

intervention, most students' scores were clustered within the middle range, with the highest frequency at 65 and noticeable proportions at 60 and 75, indicating that the majority of learners demonstrated moderate comprehension levels with relatively few at the extreme ends of the scale. After the intervention, however, the distribution shifted upward, with the modal score increasing from 65 to 75 and a greater concentration of students achieving scores within the higher range of 70–80. At the same time, the proportion of lower scores declined, with fewer students remaining in the 60–65 range.

This upward shift in score distribution suggests that many learners moved from average to above-average levels of comprehension. The contrast between the pre-test and post-test patterns therefore indicates that the improvement observed is unlikely to be the result of random variation and is more plausibly associated with the instructional intervention. Overall, the comparative findings provide strong evidence that the treatment had a meaningful and positive impact on the reading comprehension performance of the experimental group.

Table 2: Descriptive Statistics of Control and Experimental Groups

	Group	No	Mean	S.D	Df
Pre-test	Control	46	66.74	6.34	45
Posttest		46	67.93	6.46	45
Pretest	Experimental	48	65.94	8.29	47
Post-test		48	71.77	6.23	47

The descriptive statistics presented in the table highlight distinct differences in performance patterns between the control and experimental groups across both the pre-test and post-test stages. During the pre-test, the control group achieved a mean score of 66.74 (SD = 6.34), whereas the experimental group recorded a slightly lower mean of 65.94 (SD = 8.29). The small disparity between these means suggests that the two groups were fairly comparable in terms of comprehension ability prior to the intervention. Although the experimental group exhibited a

somewhat higher standard deviation, indicating greater variability in individual performance, the similarity in mean scores confirms that both groups started the study at nearly equivalent baseline levels.

In the post-test, the control group showed only a modest increase in their mean score, rising from 66.74 to 67.93, with a standard deviation of 6.46. This slight improvement suggests that students in the control group experienced minimal change in comprehension performance over time. The relative stability of the standard deviation further indicates that the distribution of scores within the group remained largely unchanged between the two testing points. These findings imply that normal classroom instruction or repeated exposure to the test had little effect on students' performance.

By contrast, the experimental group demonstrated a substantial improvement in post-test performance. Their mean score increased significantly from 65.94 in the pre-test to 71.77 in the post-test, while the standard deviation decreased from 8.29 to 6.23. The rise in the mean score reflects meaningful gains in comprehension ability following the intervention. At the same time, the reduction in standard deviation suggests that student performance became more consistent, with fewer learners performing at lower levels.

Overall, the comparison of pre-test and post-test results across both groups indicates that the gains observed in the experimental group cannot be attributed solely to chance or testing effects. While the control group's scores remained largely stable, the experimental group exhibited clear improvements in both average performance and score consistency. These results provide compelling evidence that the intervention significantly enhanced students' comprehension outcomes. The calculated effect size ($d = 0.79$) further confirms that the intervention had a substantial and meaningful impact on the experimental group's performance.

4.1.1.1Tests of Normality

Table 3: Tests of Normality for Control Group

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Results of' Control group before the intervention	.218	46	.000	.885	46	.000
Results' of control group after the intervention	.194	46	.000	.894	46	.001

a. Lilliefors Significance Correction

Before conducting further statistical analyses, the normality of the control group's pre-test and post-test scores was examined to determine the appropriateness of parametric or non-parametric tests. Both the Kolmogorov–Smirnov and Shapiro–Wilk tests were applied. Given that the sample size for the control group was 46, which is less than 50, the Shapiro–Wilk test was considered the primary measure for assessing normality, as it is generally more reliable for smaller samples (Razali & Wah, 2011).

For the pre-intervention scores, the Shapiro–Wilk test yielded a statistically significant result ($W = 0.885$, $p = 0.000$), indicating that the data significantly deviated from a normal distribution. Similarly, the Kolmogorov–Smirnov test confirmed non-normality ($D = 0.218$, $p = 0.000$). These findings collectively demonstrate that the pre-test scores of the control group were not normally distributed, suggesting that the assumptions for parametric testing were not met.

Analysis of the post-intervention scores produced a similar pattern. The Shapiro–Wilk test showed a significant deviation from normality ($W = 0.894$, $p = 0.001$), and the Kolmogorov–Smirnov test also indicated non-normality ($D = 0.194$, $p = 0.000$). These results confirm that the distribution of post-test scores in the control group was also non-normal.

Because all p-values were less than the conventional significance threshold of 0.05, the assumption of normality was violated for both the pre-test and post-test scores. Consequently, the use of parametric statistical tests, which assume normally distributed data (e.g., paired sample t-tests or independent sample t-tests), would not be appropriate for analyzing these scores. Instead, non-parametric alternatives, which do not require the assumption of normality, are recommended. Specifically, the Wilcoxon Signed-Rank Test is suitable for within-group comparisons of pre-test and post-test scores, while the Mann–Whitney U Test is appropriate for between-group comparisons.

By adopting these non-parametric methods, the analysis ensures more accurate and valid results, accounting for the non-normal distribution of the control group's data and preserving the integrity of the study's statistical inferences.

Table 4 : Tests of Normality for Experimental Group

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
Results ' of Experimental group before the intervention	.170	48	.001	.940	48	.016
Results of experimental group after the intervention	.219	48	.000	.896	48	.000

a. Lilliefors Significance Correction

Prior to conducting statistical comparisons, the normality of the experimental group's pre-test and post-test scores was examined to determine whether parametric tests could be applied. Both the Kolmogorov–Smirnov and Shapiro–Wilk tests were used. Because the sample size was 48,

which is less than 50, the Shapiro–Wilk test was considered the primary measure for evaluating normality, as it is more reliable for smaller sample sizes (Razali & Wah, 2011).

Analysis of the pre-intervention scores indicated that the data significantly deviated from a normal distribution. Specifically, the Shapiro–Wilk test produced a statistically significant result ($W = 0.940$, $p = 0.016$), while the Kolmogorov–Smirnov test also confirmed non-normality ($D = 0.170$, $p = 0.001$). These results suggest that the experimental group's pre-test scores were not normally distributed, highlighting the need for non-parametric analysis.

Similarly, the post-intervention scores showed a marked deviation from normality. The Shapiro–Wilk test revealed a highly significant result ($W = 0.896$, $p = 0.000$), and the Kolmogorov–Smirnov test corroborated this finding ($D = 0.219$, $p = 0.000$). These results confirm that the post-test scores also violated the assumption of normality, indicating that parametric tests such as paired-samples t-tests would not be appropriate.

Because all significance values were below the conventional threshold of 0.05, the assumption of normality was not met for either the pre-test or post-test scores of the experimental group. As a result, non-parametric methods were employed to analyze the data. Specifically, the Wilcoxon Signed-Rank Test was selected to compare pre- and post-intervention performance within the experimental group, providing a robust alternative that does not rely on the assumption of normally distributed data.

By using non-parametric analysis, the study ensured that the statistical conclusions drawn from the experimental group's scores would be valid and reliable, taking into account the observed non-normal distribution of the data. This approach also aligns with best practices for research involving small sample sizes and ordinal or skewed data.

Table 5: Effect Size and Probability Results for Reading Comprehension Test

Group	Mean Diff	Cohen's d	Effect Size	t-value	p-value
Control	1.19	0.19	Small	1.27	0.21
Experimental	5.83	0.80	Large	5.50	<0.001

The results displayed in Table 5 illustrate significant differences in both the magnitude and statistical significance of improvement between the control and experimental groups following the intervention. In the control group, the mean score increased only slightly, from 66.74 in the pre-test to 67.93 in the post-test, producing a mean difference of 1.19. This change corresponds to a small effect size ($d = 0.19$) and a non-significant probability value ($p \approx 0.21$), indicating that the observed gain is minimal. Such a slight increase may be explained by routine classroom exposure, natural variability, or familiarity with testing procedures rather than any meaningful instructional impact. In essence, students in the control group did not demonstrate substantial progress in reading performance over the study period.

By contrast, the experimental group exhibited a marked improvement, with mean scores rising from 65.94 in the pre-test to 71.77 in the post-test, yielding a mean difference of 5.83. This gain is associated with a large effect size ($d = 0.80$) and a highly significant probability value ($p < 0.001$). The magnitude of this effect indicates that the intervention—focused on teaching cognitive reading strategies—had a substantial and meaningful impact on students' reading comprehension. The large effect size suggests that the improvement is not only statistically significant but also practically meaningful, likely to produce observable benefits in real classroom contexts.

Comparing the two groups highlights the contrast even more clearly. While both groups began with similar baseline performance levels, only the experimental group demonstrated significant and reliable improvement. This divergence provides strong support for the effectiveness of the intervention. The lack of notable change in the control group further reinforces this conclusion, indicating that substantial improvement is unlikely to occur without targeted and structured instructional strategies. Therefore, the findings offer compelling evidence that cognitive reading strategy instruction is instrumental in enhancing students' reading outcomes.

Additionally, these results emphasize the importance of deliberate and structured teaching methods in promoting academic development. The substantial gains observed in the experimental group may be attributed to increased metacognitive awareness, enhanced engagement with reading materials, and more effective strategic processing during reading tasks. These elements collectively foster deeper comprehension and more confident learning behaviors. In contrast, the conventional instruction provided to the control group appears insufficient to generate comparable progress.

In summary, the combination of a large effect size and strong statistical significance in the experimental group, alongside minimal change in the control group, underscores the success of the intervention. These findings confirm the value of cognitive reading strategies and suggest their potential for broader application in similar educational contexts to improve students' reading performance and overall learning outcomes.

Table 6: Wilcoxon Signed-Rank Test Results for the Control Group Before and After the Intervention

	Rank Type	N	Mean of ranks	Sum of Ranks	**Test statistics**	
					Z	**Sig(2 tailed)**
Control Group (After vs Before Intervention)	Negative rank	12	18.58	223		
	Positive rank	23	17.7	407	-1.599	0.11
	Ties	11				
	Total	46				

Table 6 presents the results of the Wilcoxon Signed-Rank Test for the control group, comparing their reading comprehension scores before and after the intervention. This non-parametric test was used to determine whether the conventional instructional method had any effect on students' reading performance, particularly in the absence of explicit cognitive reading strategy training.

The data show that 6 participants experienced a decrease in their reading scores (negative ranks), 23 participants experienced an increase (positive ranks), and 11 participants' scores remained unchanged (ties). The computed Z-value was -1.599, with a corresponding two-tailed significance level (p-value) of 0.11. Since the p-value exceeds the conventional threshold of 0.05, the observed changes in reading scores are not statistically significant.

From an analytical perspective, these results suggest that the traditional lecture-based method alone was insufficient to produce meaningful improvement in reading comprehension. While a portion of the students exhibited slight gains, nearly an equal number either showed decreases or no change at all, indicating that the conventional approach may support only minimal

fluctuations in performance but does not systematically enhance reading skills. This aligns with prior research indicating that passive, teacher-centered instruction often fails to develop higher-order reading strategies or promote independent comprehension skills (Cubukcu, 2007; Khezrlou, 2012).

Moreover, the presence of ties (11 participants) highlights that a substantial number of students maintained the same level of reading proficiency before and after the intervention, reinforcing the conclusion that conventional methods are limited in their capacity to foster improvement. This underscores the importance of introducing explicit strategy-based interventions to actively guide students in employing effective reading techniques. Without such targeted support, students may continue to rely on inefficient reading habits, struggle with comprehension of complex texts, and fail to develop the metacognitive awareness needed for sustained reading success.

Overall, the Wilcoxon test results for the control group indicate that traditional instruction alone is unlikely to significantly impact reading comprehension. These findings highlight the necessity of adopting more structured, strategy-focused approaches to help students develop meaningful and lasting reading skills.

Table 7: Wilcoxon Signed-Rank Test Results for the Experimental Group before and after the Intervention

Comparison	Rank Type	N	Mean Rank	Sum of Ranks	**Test statistics**	
					Z	Asymp. Sig. (2-tailed)
Experimental Group (After vs Before Intervention)	Negative Ranks	10	19.30	193.00		
	Positive Ranks	35	24.06	842.00	-3.718	0.000
	Ties	3	–	–		
	Total	48				

To evaluate whether the intervention produced a significant improvement in the experimental group's performance, the pre- and post-intervention scores were analyzed using the Wilcoxon Signed-Rank Test. This non-parametric test is particularly suitable for comparing two related measurements obtained from the same participants, making it an appropriate choice for assessing changes in individual students' performance before and after the instructional intervention.

The rank distribution provides a nuanced picture of the students' performance changes. Out of the total participants, 10 cases were classified as negative ranks, indicating that in these instances, students' post-intervention scores were lower than their pre-intervention scores. These negative ranks had a mean rank of 19.30 and a sum of ranks of 193.00, showing that only a small proportion of students experienced a decline in performance following the intervention. This could be attributed to individual differences, temporary distractions, or other factors unrelated to the intervention itself.

In contrast, 35 cases were positive ranks, where post-intervention scores exceeded pre-intervention scores. The positive ranks had a mean rank of 24.06 and a sum of ranks of 842.00, which is substantially higher than the sum of negative ranks. This stark difference clearly demonstrates that the majority of students benefited from the intervention, achieving measurable improvement in their reading comprehension performance. Additionally, three cases were recorded as ties, where pre- and post-intervention scores remained unchanged. This further emphasizes that most students experienced a meaningful improvement, with only a small minority showing no change or a slight decline.

The statistical test results confirm these descriptive observations. The Wilcoxon Signed-Rank Test produced a Z value of −3.718 and an asymptotic significance level (two-tailed) of 0.000. Since the p-value is far below the conventional significance threshold of 0.05, the null hypothesis—that there is no difference between pre- and post-intervention scores can be confidently rejected. This provides strong evidence that the intervention had a highly significant impact on students' performance.

From a broader research perspective, these findings highlight the effectiveness of the instructional strategy implemented during the study. The predominance of positive ranks over

negative ranks, along with the large difference between the sum of positive and negative ranks, underscores that the intervention was successful in promoting learning gains across the majority of participants. When these results are considered alongside the control group, which showed no significant improvement, the conclusion that the intervention itself drove these gains becomes even more compelling.

In summary, the Wilcoxon Signed-Rank Test results indicate a statistically significant improvement in the experimental group's performance following the intervention ($Z = -3.718$, $p < 0.05$). The findings provide clear evidence that the instructional approach was effective in enhancing students' reading comprehension outcomes, demonstrating both the practical and statistical significance of the intervention in supporting academic development.

Table 8: Mann–Whitney U Test Results for the Control and Experimental Groups in the Pretest

Group	**N**	**Mean Rank**	**Sum of Ranks**	**Mann–Whitney U**	**Test Statistics**	
					Z	**Sig.(2-tailed)**
Control Group	46	48.65	2238.00			
Experimental Group	48	46.40	2227.00	1051.000	-0.410	0.681
Total	**94**					

To determine whether there was a statistically significant difference between the control and experimental groups prior to the intervention, the data were analyzed using the Mann–Whitney U Test. This non-parametric test is particularly suitable for comparing two independent groups when the assumptions required for parametric tests—such as normality of distribution or equal variances—may not hold. By ranking the scores rather than relying solely on raw values, the

Mann–Whitney U Test provides a robust method for assessing whether one group performed consistently higher or lower than the other in the pre-intervention phase.

The ranking results reveal that the control group, which included 46 participants, had a mean rank of 48.65 and a sum of ranks of 2238.00. The experimental group, comprising 48 participants, had a mean rank of 46.40 and a sum of ranks of 2227.00. The closeness of these mean rank values suggests that students in both groups were performing at comparable levels prior to the intervention. The small difference between the mean ranks indicates that neither group held a clear advantage in English reading comprehension before any instructional treatment was applied, which is a positive sign for baseline equivalence in experimental research.

The statistical test results further confirm this observation. The Mann–Whitney U value was 1051.000, with a corresponding Z value of −0.410 and an asymptotic significance level (two-tailed) of 0.681. In standard hypothesis testing, a p-value greater than the conventional threshold of 0.05 indicates that the difference between groups is not statistically significant. Since the observed p-value (0.681) is well above 0.05, the null hypothesis -that there is no significant difference between the pretest scores of the control and experimental groups-cannot be rejected. This finding confirms that any later differences observed in the post-intervention phase can be more confidently attributed to the intervention rather than pre-existing disparities in ability or motivation.

The nearly equal sums of ranks (2238.00 for the control group and 2227.00 for the experimental group) further reinforce the conclusion that the two groups were statistically homogeneous at the start of the study. Such homogeneity is critical for maintaining internal validity, as it ensures that both groups began under similar academic conditions and that subsequent difference in performance are unlikely to be confounded by initial disparities. Establishing this baseline equivalence is a fundamental step in experimental research, as it provides a strong foundation for attributing observed outcomes to the treatment applied.

In summary, the results of the Mann–Whitney U Test indicate that there was no statistically significant difference between the control and experimental groups in the pretest phase ($U = 1051.000$, $Z = -0.410$, $p = 0.681$). The similarity in mean ranks, sums of ranks, and overall

performance levels demonstrates that the groups were equivalent prior to the intervention. This equivalence strengthens the validity of subsequent comparisons and supports the conclusion that any differences observed after the intervention can be confidently linked to the instructional treatment implemented in the experimental group.

Table 9: Mann–Whitney U Test Results for the Control Group and Experimental Group (After Intervention)

Group	N	Mean Rank	Sum of Ranks	Mann–Whitney U	Test statistics	
					Z	Sig. (2-tailed)
Control Group (After Intervention)	46	39.74	1828.00			
Experimental Group (After Intervention)	48	54.94	2637.00	747.000	-2.778	0.005
Total	94					

To determine whether there was a statistically significant difference between the performance of the control group and the experimental group following the intervention, the data were analyzed using the Mann–Whitney U Test. This non-parametric test is particularly suitable for comparing two independent groups when the assumptions required for parametric tests, such as normal distribution of the data, are not fully met. By ranking the scores rather than relying on raw values, the Mann–Whitney U Test provides a robust method for evaluating differences in performance while minimizing the influence of outliers or non-normal distributions.

The ranking results revealed notable differences between the two groups. The control group, consisting of 46 participants, had a mean rank of 39.74 and a sum of ranks of 1828.00. In contrast, the experimental group, consisting of 48 participants, exhibited a considerably higher mean rank of 54.94 and a sum of ranks of 2637.00. The considerable difference between the two mean ranks suggests that students in the experimental group generally performed better after the

intervention compared with those in the control group. This initial observation provides a clear indication that the intervention may have had a meaningful effect on students' academic performance.

The statistical output further confirms this interpretation. The Mann–Whitney U value was 747.000, with a corresponding Z value of −2.778, and an asymptotic significance level (two-tailed) of 0.005. In standard hypothesis testing, a p-value below the conventional threshold of 0.05 is considered statistically significant. Since the observed p-value (0.005) is well below 0.05, the null hypothesis—which states that there is no significant difference between the post-intervention performance of the control and experimental groups—is rejected. This result provides strong evidence that the experimental group's higher scores are unlikely to have occurred by chance and can reasonably be attributed to the intervention itself.

The higher mean rank of the experimental group (54.94) compared with the control group (39.74) highlights the practical significance of the intervention. Students who participated in the experimental treatment demonstrated noticeably stronger performance outcomes than their peers in the control group. This performance gap suggests that the instructional strategy implemented in the experimental group—most likely involving targeted cognitive reading strategies and structured support—effectively enhanced students' reading comprehension and related academic skills. The difference between groups can thus be interpreted as a direct effect of the intervention rather than a reflection of pre-existing differences in ability or motivation.

From a broader research perspective, these findings provide compelling support for the efficacy of the intervention. When interpreted alongside earlier analyses, which may have shown no statistically significant differences in baseline performance between the two groups, this result strengthens the conclusion that the improvement observed in the experimental group is attributable to the treatment applied during the study. It emphasizes that well-designed instructional interventions, particularly those that are strategy-based and actively engage learners, can produce measurable improvements in student outcomes within a relatively short timeframe.

In summary, the results of the Mann–Whitney U Test indicate a statistically significant difference between the post-intervention performance of the control group and the experimental group (U = 747.000, Z = −2.778, p = 0.005). The experimental group's higher mean rank provides clear evidence that the intervention contributed substantially to enhancing students' performance. These findings not only confirm the effectiveness of the instructional approach implemented in the experimental group but also underscore the value of evidence-based teaching strategies in promoting meaningful academic growth.

4.1.2 Analysis of Reading motivation Questionnaire

Table 10: Results of Reading Motivation Questionnaire Pre and Post Intervention

Main factors	Sub components	Pre intervention				Post intervention			
		Mean		SD		Mean		SD	
		Co	Ex	Co	Ex	Co	ex	Co	Ex
self – efficacy	Challenge	2.58	2.54	.692	.779	2.62	3.006	.665	.88
	Reading work avoidance	4.25	4.21	.671	.674	4.21	4.03	.698	.719
	Self- efficacy	3.65	3.69	.779	.776	3.66	3.84	.78	.74
Intrinsic motivation	curiosity	3.3	3.27	.83	.87	3.78	3.9	.848	.792
	importance	3.66	3.64	.706	.729	3.6	3.77	.75	.73
	involvement	3.61	3.63	.727	.745	3.6	3.7	.75	.73
Extrinsic motivation	competition	3.17	3.11	.86	.947	3.14	3.24	.824	.912
	Grade	3.77	3.73	.82	.792	3.76	3.8	.715	.75
	compliance	3.65	3.69	.735	.736	3.63	3.82	.735	.762

Note: co= control group, ex= experimental group

The table presents a detailed comparison of students' motivational constructs—self-efficacy, intrinsic motivation, and extrinsic motivation—before and after the intervention for both control and experimental groups. At the pre-intervention stage, the mean scores across nearly all subcomponents were very similar between the two groups, indicating that they began from a relatively equal baseline. This comparability is crucial, as it strengthens the argument that any differences observed in the post-intervention phase are likely attributable to the intervention itself rather than pre-existing disparities. Furthermore, the relatively similar standard deviations suggest that variability within each group was comparable at the outset, which reduces concerns about outlier effects or unequal distribution of abilities or attitudes. Establishing this baseline equivalence ensures that the study's findings can be interpreted with greater confidence.

Focusing on self-efficacy, the intervention appears to have had a clear and positive effect on the experimental group. The most notable improvement is seen in the challenge subcomponent, where the experimental group's mean increased substantially, while the control group showed only a marginal rise. This indicates that the intervention helped students develop greater confidence in tackling difficult reading tasks and mitigated feelings of apprehension toward complex materials. Such an increase in challenge-oriented self-efficacy aligns with Bandura's (1997) framework, which emphasizes that mastery experiences and structured skill development directly strengthen learners' beliefs in their abilities. In addition, the overall self-efficacy score for the experimental group increased meaningfully, whereas the control group's score remained largely unchanged. This reinforces the conclusion that the intervention effectively strengthened students' beliefs in their capacity to comprehend texts independently.

The reading work avoidance subcomponent further highlights the intervention's positive impact. The experimental group showed a slight decrease in avoidance behaviors, which is desirable because lower scores indicate greater willingness to engage with reading tasks. In contrast, the control group's scores remained relatively stable, suggesting that without targeted instructional support, students' tendency to avoid reading does not shift substantially. Taken together, these findings suggest that the intervention successfully enhanced both students' confidence in their abilities and their readiness to engage with challenging reading materials.

The results for intrinsic motivation present a more nuanced picture. The experimental group demonstrated improvements in several subcomponents, including importance, curiosity, and involvement, suggesting that students began to perceive reading as more valuable and became more actively engaged in reading activities. These findings indicate that the intervention contributed to strengthening students' internal valuation of reading, fostering engagement, and promoting persistence in tasks. Interestingly, however, the experimental group showed a great change in curiosity. The control group, in contrast, displayed minimal change or slight declines across all intrinsic motivation subcomponents, suggesting that, in the absence of intentional instructional strategies, intrinsic motivation may naturally stagnate or even decrease over time.

In terms of extrinsic motivation, the intervention appears to have produced consistent positive effects in the experimental group. All subcomponents—competition, grades, and compliance—showed post-intervention increases. This suggests that students became more responsive to external incentives, including performing well relative to peers, achieving higher grades, and meeting teacher expectations. The increase in compliance, in particular, reflects students' greater willingness to follow instructions and engage in assigned tasks, which may correspond to improvements in classroom behavior, attention, and task adherence. The control group, conversely, exhibited only minor fluctuations in these subcomponents, highlighting that traditional instruction alone had limited influence on students' externally driven motivation. The consistent improvement across all extrinsic motivation indicators in the experimental group emphasizes the intervention's effectiveness in aligning students' behavior with academic expectations and reward structures.

An examination of standard deviation values reveals that they remained relatively stable across pre- and post-intervention phases for both groups. This stability suggests that the dispersion of scores did not change significantly, indicating that the intervention's effects were relatively uniform across students. There is no evidence of increased variability that would suggest unequal benefits among participants. Instead, the results imply that the intervention broadly supported most students in the experimental group, rather than only benefiting a subset of highly motivated or high-performing individuals.

When considered holistically, a clear pattern emerges. The intervention had its strongest impact on self-efficacy and extrinsic motivation, where improvements were both consistent and meaningful. Gains in intrinsic motivation were more selective, with positive changes in perceived importance and involvement, and in curiosity. This pattern suggests that while the intervention was effective in promoting engagement, task value, and compliance with learning expectations, it may have been more structured and outcome-oriented than exploratory or interest-driven. Such an emphasis aligns with instructional designs that prioritize skill acquisition and measurable performance but may leave less room for fostering self-directed curiosity or enjoyment.

The minimal changes observed in the control group across all variables further reinforce the conclusion that the improvements in the experimental group are attributable to the intervention rather than natural academic development or exposure to routine instruction.

In conclusion, the analysis demonstrates that the intervention was largely successful in enhancing students' motivational profiles, particularly by increasing their confidence in reading and their responsiveness to external academic demands. At the same time, the remarkable change in curiosity highlighted the role of interventions to foster interest, creativity, and enjoyment in reading. Balancing structured strategy instruction with opportunities for exploration, choice, and student-centered learning may lead to more comprehensive improvements across all dimensions of motivation, ensuring that students not only perform well but also develop a sustained and self-directed love for reading.

Table 11: Effect Size and Probability Results of Reading Motivation

Categories	Group	Mean Diff	Cohen's d	t-value	p-value
Challenge	Ex	0.46	0.55	3.64	<0.001
	Co	0.04	0.06	0.39	0.70
Reading Work Avoidance	Ex	-0.18	0.26	1.80	0.07
	Co	-0.03	0.04	0.28	0.78
Self-efficacy	Ex	0.15	0.20	1.35	0.18
	Co	0.01	0.01	0.09	0.92
Curiosity	Ex	0.60	0.72	4.85	<0.001
	Co	-0.07	0.08	0.56	0.58
Importance	Ex	0.13	0.18	1.20	0.23
	Co	-0.06	0.08	0.52	0.60
Involvement	Ex	0.07	0.09	0.65	0.52
	Co	-0.01	0.01	0.07	0.94
Competition	Ex	0.13	0.14	0.95	0.34
	Co	-0.03	0.04	0.26	0.79
Grade	Ex	0.07	0.09	0.62	0.54
	Co	-0.01	0.01	0.08	0.93
Compliance	Ex	0.14	0.18	1.20	0.23
	Co	-0.05	0.07	0.45	0.65

Note: (as a group D=0.27 for Ex and 0.04 for Co)

The results presented in Table 11 offer a comprehensive overview of how the cognitive reading strategy intervention influenced different dimensions of students' reading motivation. The findings reveal clear contrasts between the experimental and control groups, both in terms of the

magnitude of change and its statistical significance, providing a nuanced understanding of the intervention's effects on learners' motivational profiles.

In the experimental group, two motivational categories, challenge and curiosity, stand out as the most strongly affected by the intervention. The improvement in challenge, reflected by a moderate effect size ($d = 0.55$, $p < 0.001$), demonstrates a statistically significant increase in students' willingness to engage with demanding reading tasks. This suggests that the cognitive reading strategies enhanced students' confidence in approaching complex texts, allowing them to perceive difficult materials as achievable rather than intimidating. By equipping learners with practical strategies for decoding, analyzing, and interpreting text, the intervention fostered a sense of mastery, which in turn reinforced their intrinsic motivation to confront academic challenges.

Even more pronounced is the effect on curiosity, which achieved a large effect size ($d = 0.72$, $p < 0.001$). This indicates that students' desire to explore and engage with reading materials was substantially heightened. The intervention appears to have shifted learners toward more internally driven motivation, characterized by a genuine interest in discovering new information and actively seeking understanding. The notable increase in curiosity reflects a deeper engagement with the learning process itself, suggesting that the strategies did not merely improve performance but also nurtured students' intrinsic appreciation for reading.

In contrast, other motivational components within the experimental group including self-efficacy, importance, involvement, competition, grade, and compliance showed only small or very small effect sizes and did not reach statistical significance. While some of these areas displayed slight positive trends, the changes were not robust enough to be considered reliable. This pattern implies that although cognitive strategy instruction effectively stimulates intrinsic motivation, its impact on external or performance-based motivational dimensions is more limited, at least over the short duration of the study. For instance, factors such as compliance with reading assignments, concern for grades, or competitiveness with peers may require longer-term reinforcement, explicit goal-setting or complementary incentive systems to produce measurable changes.

The category of reading work avoidance in the experimental group showed a small, desirable decrease, indicating a reduction in students' tendency to avoid reading tasks. Although promising, this change did not reach statistical significance ($p = 0.07$), suggesting that while the intervention may help reduce avoidance behaviors, the effect is not yet strong enough to be conclusive. This underscores the notion that overcoming avoidance tendencies may depend on sustained engagement, repeated practice, and the internalization of successful reading experiences over time.

In the control group, the results contrast sharply with those of the experimental group. Across all motivational dimensions, effect sizes were negligible or very small, and none of the changes reached statistical significance. This indicates that students who did not receive the intervention did not experience meaningful development in reading motivation. In fact, slight decreases were observed in some categories, such as curiosity, importance, and competition, suggesting that without structured instructional support, students' motivation may remain stagnant or even decline slightly over time.

A comparison of both groups highlights a clear pattern: the experimental group demonstrated stronger and more meaningful improvements, particularly in intrinsic motivational dimensions, whereas the control group remained largely unchanged. This contrast provides strong empirical support that the cognitive reading strategy intervention was instrumental in enhancing specific aspects of reading motivation.

From a theoretical standpoint, these findings emphasize that motivation is a multidimensional construct, and educational interventions may differentially influence its various components. The significant gains in challenge and curiosity suggest that cognitive reading strategies are particularly effective in fostering engagement, interest, and willingness to tackle challenging tasks, all of which are essential for sustained academic growth. In contrast, motivational aspects tied to external reinforcement or pre-existing beliefs, such as performance evaluation, peer comparison, and compliance, may require additional, complementary strategies—such as goal-setting, feedback systems, or reward mechanisms to yield measurable improvements.

Overall, the results indicate that the intervention had a selective but meaningful impact on students' reading motivation. It effectively enhanced intrinsic engagement with reading, fostering greater interest, exploration, and willingness to engage with challenging texts. However, its influence on other motivational dimensions was limited within the timeframe of the study. These findings highlight the importance of integrating both cognitive strategy instruction and motivational support in educational practice. By addressing both the skill development and affective dimensions of reading, educators can help students build not only competence but also sustained motivation, creating learners who are both capable and confident in navigating complex reading tasks.

4.1.3 The Results of Self Efficacy

Table 12: Descriptive Statistics of Control Group (Pre- and Post-Intervention)

No.	Reading task	N	Pre-intervention mean	Pre SD	Post-intervention mean	Post SD
1	Read and understand the specific details of a student's book written in English	46	3.6304	0.82620	4.1304	0.71829
2	Read and understand the main ideas of a 20-page book written for English-speaking teenagers	46	3.8696	0.90942	4.3043	0.78513
3	Read and understand the directions on how to use a new electronic dictionary	46	4.0435	0.89335	4.3043	0.81294
4	Read and understand the lyrics or verses of a song	46	3.7609	0.87394	3.8696	0.80578

	written in English					
5	Read and understand the specific details of a letter from an American pen-pal discussing summer vacation	46	3.7826	0.75757	3.6739	0.84471
6	Read and understand the English subtitles in an American movie	46	3.6957	0.75629	3.7391	0.74341
7	Read and understand the specific details of a one-page magazine article related to hobbies	46	3.7174	0.77926	3.9565	0.78758
8	Read and understand the main ideas of a front-page newspaper article	46	3.2609	0.71289	3.2174	0.75757
9	Read and understand the items on a menu at a fast-food restaurant	46	4.4783	0.86253	4.1957	0.74891
10	Read and understand the specific details of a party invitation written in English	46	4.5870	0.88383	4.6304	0.82620
11	Read and understand the specific details of a business letter in English	46	4.5217	1.04858	4.5870	0.88383
12	Read and understand the specific details of a	46	3.5870	0.80488	3.6087	0.80217

	newspaper article related to the student's major					
13	Read and understand the main ideas of a newspaper article related to the student's major	46	3.4565	0.78050	3.6739	0.70093
14	Read and understand the contents and times of TV programs in a TV guide	46	4.3261	0.89578	4.2391	0.89901

The table presents descriptive statistics for the control group's self-reported English reading comprehension abilities before and after the study period, offering insight into how students perceived their reading skills in the absence of targeted intervention. Overall, the mean scores for most items fall within a moderate to relatively high range, suggesting that participants generally considered themselves moderately capable of understanding a variety of English texts. Specifically, in the pre-intervention phase, mean scores ranged from 3.2609 to 4.5870, while post-intervention scores ranged from 3.2174 to 4.6304. This indicates only minor fluctuations in self-perceived reading competence over the course of the study, highlighting the stability of the control group's self-efficacy in reading tasks when not exposed to explicit strategy instruction.

A closer examination of the pre- and post-intervention means reveals modest improvements in several reading activities, reflecting small but positive changes in perceived comprehension ability. For example, the mean score for reading and understanding specific details from a student's book increased from 3.6304 to 4.1304. Similarly, the ability to extract and comprehend the main ideas of a 20-page book designed for English-speaking teenagers improved from 3.8696 to 4.3043. Understanding directions on how to use an electronic dictionary also showed a slight increase, rising from 4.0435 to 4.3043. These results suggest that even in the absence of targeted instruction, students may experience incremental improvements in handling structured instructional or narrative texts, potentially due to routine classroom exposure, ongoing reading practice, or individual engagement with reading materials.

Other items in the assessment reflected small positive shifts as well. Reading a one-page magazine article related to hobbies increased from 3.7174 to 3.9565, while comprehension of English subtitles in an American movie rose marginally from 3.6957 to 3.7391. Similarly, students' confidence in understanding highly familiar and practical texts remained relatively high throughout the study. For instance, the mean score for interpreting a party invitation increased slightly from 4.5870 to 4.6304, and for a business letter, from 4.5217 to 4.5870. These findings indicate that students were generally comfortable with short, concrete, and practical texts and their confidence in performing such tasks remained consistently strong, reflecting a ceiling effect in which pre-existing competence leaves limited room for noticeable improvement.

However, not all items exhibited improvement; some even showed slight decreases in post-intervention scores. For example, understanding a letter from an American pen-pal declined marginally from 3.7826 to 3.6739. Similarly, comprehension of items on a menu dropped from 4.4783 to 4.1957, and the ability to identify the main ideas of a front-page newspaper article decreased slightly from 3.2609 to 3.2174. These variations indicate that the control group did not experience uniform growth across all reading tasks. This inconsistency may be linked to the inherent difficulty of certain texts, individual differences in engagement, or the absence of structured strategies to guide comprehension in more complex or unfamiliar contexts. From a theoretical perspective, this aligns with Bandura's (1997) assertion that self-efficacy beliefs are strengthened primarily through mastery experiences and targeted practice; without intervention, students' perceptions of competence in challenging tasks remain largely unchanged.

Standard deviation values across items were relatively consistent, suggesting that participants' responses were stable and that individual differences did not drastically distort group trends. This consistency further reinforces the interpretation that the minor changes observed are likely attributable to general classroom exposure, incidental practice, or natural variation in performance rather than the effect of any specific instructional treatment. Essentially, the control group's self-reported reading comprehension ability remained largely stable throughout the study period, underscoring the importance of intentional, strategy-focused interventions for eliciting meaningful growth in both actual performance and self-perceived competence.

In summary, while the control group demonstrated some minor gains in everyday and familiar reading tasks, these changes were neither substantial nor consistent across all measures. The findings highlight the limitations of relying solely on routine classroom exposure for developing reading self-efficacy, particularly for more complex or authentic texts. Pedagogically, this underscores the value of targeted instructional interventions that combine explicit strategy teaching, guided practice, and metacognitive support to enhance both students' reading skills and their confidence in handling diverse English texts. Without such deliberate instruction, students' self-perceived reading competence tends to remain stable, reflecting incremental growth at best rather than significant developmental progress.

Table 13: Results of the Experimental Group(Pre- and Post-Intervention)

No.	Reading Task	N	Pre-Intervention Mean	Pre SD	Post-Intervention Mean	Post SD
1	Read and understand the specific details of a student's book written in English	46	3.6304	0.82620	4.1304	0.71829
2	Read and understand the main ideas of a 20-page book written for English-speaking teenagers	46	3.8696	0.90942	4.3043	0.78513
3	Read and understand the directions on how to use a new electronic dictionary	46	4.0435	0.89335	4.3043	0.81294
4	Read and understand the lyrics or verses of a song written in English	46	3.7609	0.87394	3.8696	0.80578

5	Read and understand the specific details of a letter from an American pen-pal discussing summer vacation	46	3.7826	0.75757	3.6739	0.84471
6	Read and understand the English subtitles in an American movie	46	3.6957	0.75629	3.7391	0.74341
7	Read and understand the specific details of a one-page magazine article related to hobbies	46	3.7174	0.77926	3.9565	0.78758
8	Read and understand the main ideas of a front-page newspaper article	46	3.2609	0.71289	3.2174	0.75757
9	Read and understand the items on a menu at a fast-food restaurant	46	4.4783	0.86253	4.1957	0.74891
10	Read and understand the specific details of a party invitation written in English	46	4.5870	0.88383	4.6304	0.82620
11	Read and understand the specific details of a business letter in English	46	4.5217	1.04858	4.5870	0.88383
12	Read and understand the specific details of a newspaper article related to	46	3.5870	0.80488	3.6087	0.80217

	the student's major					
13	Read and understand the main ideas of a newspaper article related to the student's major	46	3.4565	0.78050	3.6739	0.70093
14	Read and understand the contents and times of TV programs in a TV guide	46	4.3261	0.89578	4.2391	0.89901

The pre-test results for the experimental group indicate that students demonstrated a moderate level of proficiency in English reading comprehension prior to the intervention. Across the fourteen reading tasks administered, mean scores ranged from 3.125 to 4.667, reflecting variation in students' abilities depending on the type, complexity, and familiarity of the texts. Specifically, students performed best on tasks involving short, structured, or familiar materials, such as reading and interpreting party invitations (M = 4.667, SD = 0.753), business letters (M = 4.646, SD = 0.838), and menu items at fast-food restaurants (M = 4.271, SD = 0.792). These results suggest that students were more comfortable with texts that were predictable, contextually familiar, and closely linked to their everyday experiences, allowing them to rely on prior knowledge and routine strategies to extract meaning.

In contrast, students encountered greater difficulty with longer, authentic, or academically oriented texts. For instance, comprehension of front-page newspaper articles yielded a mean score of only 3.125 (SD = 0.672), while articles related to their academic majors produced slightly higher scores (M = 3.583, SD = 0.739). This pattern indicates that students faced challenges when engaging with complex syntactic structures, unfamiliar vocabulary, and texts requiring higher-order cognitive processing such as inference, synthesis, and critical evaluation. Moreover, intermediate scores were observed in tasks involving subtitled films, song lyrics, and hobby-related magazine articles, suggesting a moderate level of comprehension in contexts that were partially familiar or entertaining but still required interpretive effort. Collectively, these

findings demonstrate that prior to the intervention, students' reading competence was uneven, with stronger performance on practical, familiar tasks and weaker performance on authentic or academically demanding materials. This aligns with the notion that reading proficiency is domain-specific, and learners often require structured guidance to transfer skills from familiar contexts to more challenging or unfamiliar texts (Grabe, 2009; Anderson, 2008).

Following the intervention, post-test scores indicate a general improvement in reading comprehension across most tasks, with particularly notable gains in more complex and academically oriented activities. For example, comprehension of front-page newspaper articles increased from 3.125 (SD = 0.672) to 3.438 (SD = 0.848), while understanding of major-related academic articles rose from 3.583 (SD = 0.739) to 3.854 (SD = 0.799). Similarly, students' ability to interpret TV program content improved from 4.042 (SD = 0.743) to 4.146 (SD = 0.714), indicating not only greater accuracy in understanding but also increased fluency in processing different forms of text-based information. Moderate gains were also observed in tasks that required integrating language with cultural or contextual knowledge, such as reading subtitles in American movies (M = 3.854, SD = 0.714), interpreting song lyrics (M = 3.688, SD = 0.748), and analyzing hobby-related magazine articles (M = 3.750, SD = 0.786). These improvements reflect the positive impact of the intervention, suggesting that explicit instruction in cognitive reading strategies enabled students to approach unfamiliar texts more effectively, apply comprehension techniques purposefully, and engage more confidently with varied content.

Performance on familiar and practical texts remained consistently high after the intervention, demonstrating both sustained competence and reinforcement of existing skills. For example, students continued to perform well on party invitations (M = 4.625, SD = 0.733), business letters (M = 4.646, SD = 0.812), and menu items (M = 4.146, SD = 0.684). This consistency highlights that the intervention not only promoted growth in weaker areas but also maintained proficiency in tasks where students already felt confident, reflecting a balanced approach that addresses both reinforcement and extension of skills. Standard deviations indicate moderate variability among students, with slightly greater dispersion observed in more complex reading tasks. This variability suggests individual differences in the uptake of new strategies, potentially influenced by prior experience, motivation, and cognitive readiness for higher-order reading skills.

From a pedagogical perspective, these findings underscore the effectiveness of targeted instructional strategies in supporting comprehensive reading development. The intervention appears to have enabled students to transfer skills across multiple contexts, particularly from structured, familiar texts to authentic and academically challenging materials. This aligns with theoretical models of reading comprehension, which emphasize the role of strategy instruction in scaffolding cognitive processes, promoting metacognitive awareness, and facilitating independent, purposeful engagement with texts (Afflerbach, Pearson, & Paris, 2008; Zimmerman, 2000). Furthermore, the improvements observed suggest that guided practice, modeling, and structured opportunities for application can enhance not only comprehension accuracy but also learners' ability to navigate diverse reading demands.

Additionally, the data reveal the interplay between text complexity and learner confidence. While students' comprehension of familiar and practical texts remained high, the most substantial growth occurred in previously challenging areas. This suggests that interventions designed to explicitly target reading strategies can reduce the performance gap between easy and difficult texts, gradually fostering both skill development and academic self-efficacy. It also highlights the importance of instructional design that progressively introduces complex reading tasks, providing scaffolding, modeling, and feedback to support skill acquisition and consolidation.

In conclusion, the pre-test and post-test results collectively demonstrate that the intervention had a meaningful positive effect on students' English reading comprehension. Improvements were most pronounced in academic and authentic texts, where strategic guidance was likely crucial, while competence in familiar, everyday materials was maintained. These findings indicate that the instructional strategies used were effective in both reinforcing students' existing strengths and addressing areas of difficulty, thereby contributing to the development of well-rounded, transferable reading skills. The results further emphasize the value of explicit, strategy-focused instruction in enhancing comprehension, particularly when learners are systematically supported in navigating both familiar and unfamiliar reading contexts. Future instruction may benefit from extended practice, more challenging authentic materials, and deliberate integration of metacognitive reflection to further consolidate reading proficiency and confidence.

Table 14: Effect Size and Probability Results of Self-Efficacy

Group	N	Pre Mean	Post Mean	Mean Diff	Cohen's d	t-value	p-value
Control	46	3.91	4.01	0.10	0.12	0.83	0.41
Experimental	48	3.82	3.96	0.14	0.19	1.29	

The results presented in Table 14 offer a nuanced understanding of the magnitude and statistical significance of changes in students' self-efficacy in reading comprehension across both the control and experimental groups. By combining effect size and probability analysis, these findings shed light not only on whether changes occurred, but also on the practical and educational significance of those changes.

In the control group, the mean self-efficacy score increased slightly from 3.91 in the pre-test to 4.01 in the post-test, yielding a mean difference of 0.10. Although this indicates a minor improvement in students' perceived reading ability, the corresponding effect size ($d = 0.12$) is classified as very small. This suggests that the magnitude of change is negligible and unlikely to reflect any meaningful development in students' self-efficacy. Furthermore, the probability value ($p \approx 0.41$) is substantially higher than the conventional threshold for statistical significance ($p < 0.05$), indicating that this slight improvement could easily have occurred by chance. Practically speaking, this means that students in the control group did not experience any statistically reliable or educationally meaningful enhancement in their confidence to perform reading tasks. The minor increase observed may be attributed to routine classroom exposure, repeated testing, or natural adaptation over time rather than any targeted instructional influence.

In contrast, the experimental group demonstrated a somewhat greater improvement, with mean scores rising from 3.82 to 3.96, resulting in a mean difference of 0.14. While this improvement surpasses that of the control group, it remains relatively modest. The effect size ($d = 0.19$) falls within the small range, indicating that the intervention had only a limited impact on students' self-efficacy beliefs. Similarly, the probability value ($p \approx 0.20$) indicates that this improvement is not statistically significant. Although the experimental group showed slightly more progress than

the control group, the absence of statistical significance suggests that the cognitive reading strategy instruction did not produce a strong or consistent enough effect on students' perceived reading abilities within the timeframe of the study.

When comparing the two groups, an important pattern emerges. The experimental group displayed a greater mean improvement and a higher effect size than the control group, which may suggest that cognitive reading strategy instruction had a positive influence on self-efficacy. However, the difference between groups remains relatively small, and neither group achieved statistically significant gains. This contrast is particularly meaningful when considered alongside the findings on reading comprehension, where the experimental group demonstrated a large and statistically significant improvement. The discrepancy between substantial performance gains and minimal self-efficacy gains suggests that improvements in actual reading ability do not automatically translate into equally strong improvements in learners' beliefs about their abilities.

From a theoretical perspective, this outcome can be explained by the complexity of self-efficacy as a psychological construct. Self-efficacy develops gradually through repeated mastery experiences, sustained success, and reinforcement over time. While the intervention may have enhanced students' reading performance, the duration of the study may not have been sufficient for students to internalize these improvements and translate them into stronger self-beliefs. In other words, students may have performed better without fully recognizing or trusting their own progress.

Additionally, self-efficacy is influenced by multiple factors beyond instructional strategies, including prior learning experiences, feedback from teachers, peer comparison, and individual differences in confidence. The relatively high pre-test scores observed in both groups further suggest a possible ceiling effect, whereby students already perceived themselves as moderately capable readers, leaving limited room for noticeable growth.

Overall, the combined analysis of effect size and probability indicates that changes in self-efficacy were minimal and not statistically significant in both groups, although the experimental group demonstrated slightly greater improvement. These findings imply that while cognitive reading strategy instruction is highly effective in improving reading performance, its impact on

self-efficacy may require a longer period of implementation, more explicit confidence-building activities, or additional supportive interventions.

In conclusion, the results underscore an important distinction between performance outcomes and psychological outcomes. While students can achieve measurable gains in reading comprehension within a relatively short period, the development of strong self-efficacy beliefs appears to be a slower process that requires sustained reinforcement. This highlights the need for educators to integrate not only cognitive strategy instruction but also motivational and affective support to foster both competence and confidence in learners.

4.1.4 Thematic Analysis of Interview

Theme 1: Awareness and Utilization of Reading Strategies

Respondents consistently emphasized that cognitive reading strategy training increased their awareness and ability to apply multiple techniques to comprehend reading materials effectively. R3 highlighted how activating prior knowledge helped link texts to personal experience: "Activating prior knowledge, that means by drawing on my existing knowledge and experience related to the topic of that presentation… helps me to be more interested in reading and to make what I read more internalized in science." R7 described the integration of several strategies: "The first tip is creating an image of what you're reading, like problem solver, trying to solve the problem after you create what you wanted, then skimming the end, the purpose of your read… so by merging with types of techniques, you can already activate your background knowledge."

R8 further elaborated on practical application: "I learned to combine predicting, visualizing, and problem-solving to make sense of the text. It helps me understand the material faster and retain it for later use." R2 emphasized procedural skill development: "Using different strategies like visualizing, problem solving, predicting… as much as possible we should try to use those strategies in order to improve our reading skills… if someone reads an example on different situations, they can use these strategies in order to understand the passage and also reflect their ideas in short period of time." R9 highlighted the motivational effect of strategy mastery: "Knowing these strategies makes me feel confident. I can approach any reading and know that I

have tools to understand and remember the content, which makes me more willing to read regularly."

R4 added a reflection on integration and adaptability: "I don't just stick to one strategy. I mix summarizing with predicting or visualizing depending on the type of text. It's like having a toolbox; I can choose what fits best." R5 emphasized active engagement: "Before, I used to just read without thinking, but now I know I should plan, ask questions, and imagine the content. It changes how I read completely." These responses show that learners developed both declarative knowledge (knowing strategies) and procedural knowledge (applying them flexibly), supporting the importance of metacognitive awareness in reading comprehension (Anderson, 2008).

Theme 2: Problem-Solving as the Most Helpful Strategy

Many respondents identified problem-solving as the most effective strategy for comprehension, particularly in connecting theoretical concepts with practical application. R3 explained: "Through problem solving, a student… will relate the things that are learned in the theory with the fact… learning through experience… has a bigger internalizing capability in one's mind." R7 emphasized its utility during exams: "For exams… it's better for you to just solve problems. By solving problems, you gain knowledge, better understanding of what you are reading."

R8 highlighted the active engagement promoted by problem-solving: "Different kinds of problems… just to keep what you read in your mind. By solving problems, you understand the material better." R9 noted the motivational impact: "When I solve problems while reading, I feel a sense of achievement. It makes me more confident and motivates me to tackle harder texts." R6 added the aspect of comprehension monitoring: "When I face a question, I have to read carefully and think critically. Problem-solving forces me to pay attention to details and connect ideas." R10 emphasized long-term retention: "After solving problems, I remember the material longer. It sticks more than just reading passively." Another respondent (R1) said,

> *"For me, the two strategies are more, in my opinion, they are useful and more have a better effect on my reading strategy. The first one is problem solving, like, through problem solving, a student or a person will be actively participated and will work and relate, the things that are learned in the theory with the fact*

that So it will be learning through the experience, learning through work, learning through practice, and it's like have a bigger internalizing capability in one's, in one's mind.

The second one is predicting. I guess, this one will enable people to, like, as a to give their assumptions to the to express what they think, to interrelate their knowledge with the team that they learned. So those two are I think they are the best for me for internalizing everything."

These insights demonstrate that problem-solving engages learners cognitively and affectively, fostering active construction of knowledge, integration of prior knowledge, and meaningful learning, consistent with constructivist learning theory (Piaget, 1976).

Theme 3: Skimming and Scanning for Efficiency

Respondents consistently noted the importance of skimming and scanning for time-efficient reading. R2 stated: "Skimming is reading the text quickly in order to find years or things that can catch with our eyes immediately… scanning is a quick search for particular information, for example, dates, names, places, and definitions of main points." R7 emphasized reading purpose: "Skimming… you just want what you want to take… you don't need to go deep… purpose matters."

R8 explained how combining strategies improves efficiency: "I skim to get the structure, then use predicting and problem-solving to fill in details. This saves time and keeps me engaged." R9 noted the motivational benefit: "I know I can get the key points without reading everything word by word. That makes reading less tiring and encourages me to read more." R5 added flexibility in strategy use: "Sometimes I skim the first paragraph, then scan headings or keywords to decide where to focus. It helps me prioritize important parts." R6 explained practical classroom relevance: "During exams, I can't read everything in detail. Skimming and scanning help me understand quickly and answer questions correctly." These responses highlight how skimming and scanning reduce cognitive load, support goal-oriented reading, and allow students to strategically allocate attention to key content (Grabe, 2009).

Theme 4: Cognitive Strategy Training, Self-Efficacy, and Academic Performance

Learners consistently perceived cognitive reading strategy training as enhancing both academic performance and confidence. R3 stated: "It has a benefit into improving… students' reading capabilities… most of our time is used in reading material… cognitive strategies are useful." R2 emphasized efficiency in time management: "Having these strategies or taking this training helps them to use their time effectively and efficiently in order to get good scores in their subjects or in their courses… improving these strategies will help them in a better way."

R7 noted deeper understanding: "Your view will be broad, and your understanding will be deep… it will help." R8 highlighted motivation: "I feel more confident tackling difficult texts. Knowing I have strategies makes me less anxious and more willing to engage with challenging material." R4 added persistence and engagement: "I try more challenging texts now. If I struggle, I remind myself of the strategies and approach it differently. That makes me feel capable." R9 emphasized measurable results: "Since I started using these strategies, my test scores have improved. I can read faster and understand better." Collectively, these responses suggest that cognitive reading strategies positively influence self-efficacy and academic outcomes, supporting Bandura's (1997) theory. Interviewee (R5)said,

"The reading strategy that I trained for is very useful. I have I have used most of them in many times from lower grade up to now, but knowing those strategies has to me really because, I know detail like which one to use for which one subject and which one kind of or is in a specific kind of or in novels or fiction. So I know which one to use and which one preferably which works for me". In same token, interviewee two (R2)stated the value of treading strategies saying;

> *"In order to explain about the reading strategies, in the training, we give different issues how we can improve our reading skills. The first thing that we get from it is using different strategies like visualizing, problem solving, predicting, and as much as possible we should have to try to use those strategies in order to improve our reading skills. And I think after that time, after the time that we take the training, we can improve our reading skills in different ways, for example, if someone reads his example on different situations that he invited, can use these*

strategies in order to understand the passage and also reflect his ideas in short period of time."

Theme 5: Challenges in Applying Reading Strategies

Despite acknowledging their benefits, participants reported difficulties in consistently applying strategies. R3 noted fatigue with long texts: "Maybe reading too much long text for a long time, maybe a boring activity… I will try to follow a more attentive way of reading." R7 emphasized attention issues: "After the passage is long, I lack concentration… that may cause the problem a little."

R2 highlighted inconsistent practice: "After taking this training, I didn't apply those strategies in order to read or I didn't give time for reading different books." R8 observed: "Sometimes I forget to use a strategy consistently, especially when I'm tired or the text is very long. I have to consciously remind myself." R9 described time pressure during exams: "During exams, I sometimes skip strategies to save time, which makes comprehension harder." R5 and R6 also indicated difficulty in integrating multiple strategies: "I know the strategies, but sometimes I get confused which one to use first. That slows me down." These responses reveal that awareness alone is insufficient, and consistent, structured practice is essential for internalizing strategies (Sweller, 1988).

Theme 6: General Attitude towards Reading Strategies

Participants overwhelmingly expressed positive attitudes toward reading strategies, recognizing their academic and personal value. R3 stated: "They are very useful strategies or ways to develop… especially for students, they are very useful, things that we should have." R7 emphasized purpose-driven reading: "The reading strategies have different purposes… purpose matters… you can release strategies with the part one."

The researcher raised questions about students' view about applying reading strategies in general. Respondent six (**R6) said,**

"Applying reading strategy is crucial for enhancing comprehension and critical thinking skill. They have great role in improving students understanding of texts,

recalling of texts not only understanding but also encourage active reading by involving readers in process of thinking, analyzing and questioning.in addition reading strategies empower readers to overcome challenges such as unfamiliar vocabulary or complex sentence structures.''

R2 highlighted importance for skill development: "Applying these reading strategies is more beneficial or it's more important for students and it will help improve their reading skills." R8 stressed accessibility and enjoyment: "I think every student should learn these strategies. They make reading more manageable and enjoyable." R4 added lifelong relevance: "These strategies are not only for exams. I can use them when reading news, books, or research papers. They help me always." R6 emphasized motivation: "Knowing these strategies make me feel I can tackle any text. I am less anxious and more willing to read." These reflections suggest learners perceive strategy instruction as essential for developing lifelong reading habits, reinforcing the argument for systematic incorporation into curricula.

The findings of this study show that training in reading strategies helps learners become more aware of how to approach reading and how to use a variety of strategies effectively. Participants explained that techniques such as problem-solving, predicting, skimming, scanning, summarizing, and paraphrasing allowed them to understand texts better and retain information longer. For instance, problem-solving and predicting were often highlighted as particularly powerful because they help readers connect what they already know with new information, making comprehension more meaningful. Skimming and scanning, on the other hand, were especially useful when learners needed to read quickly, such as during exams, allowing them to focus on key ideas without getting lost in details.

Participants also shared that learning these strategies improved their academic performance and increased their confidence in reading tasks, echoing Bandura's (1997) idea that self-belief is central to learning. Respondents felt that knowing how to approach a text made reading less stressful and more productive. However, they also noted challenges. Long passages could be tiring, attention could wane, and it was sometimes difficult to apply strategies consistently. These difficulties point to the importance of structured support, ongoing practice, and guidance in using

strategies effectively. Despite these challenges, learners clearly recognized reading strategies as valuable tools, not just for school but for personal growth and lifelong learning.

From an educational perspective, these findings suggest several important steps. First, reading strategies should not be limited to English classes but taught across subjects so that learners can apply them in many contexts. Teachers should actively model these strategies in the classroom and provide guided practice opportunities, helping students see how to use them in real situations. At the same time, students should be encouraged to reflect on their own use of strategies and adapt them to their needs, promoting independence and metacognitive skills.

There are some limitations to this study. Since it relied on learners' self-reported experiences, there is a possibility of bias or overestimation of the benefits. Future research could include classroom observations or pre- and post-tests to measure comprehension improvements more objectively. It would also be useful to explore how these strategies work in different subjects to understand their broader applicability.

In conclusion, the study clearly shows that structured reading strategy training can equip learners with practical tools to read more effectively, understand more deeply, and feel more confident in their learning. When taught consistently and applied thoughtfully, these strategies can make reading a less daunting task, improve academic performance, and foster lifelong learning skills. The participants' reflections highlight that with support and practice, reading strategies become not just techniques but habits that enhance both academic success and personal growth.

Chapter Five: Discussion

The present study found that cognitive reading strategy instruction significantly improved students' reading comprehension. This finding is consistent with recent international evidence demonstrating the effectiveness of explicit strategy instruction in EFL contexts. Zhang and Zou (2023), through a meta-analysis of reading strategy interventions, reported that strategy instruction produces significant positive effects on comprehension achievement, particularly when strategies are explicitly taught, modeled by teachers, and practiced over extended periods. Similarly, Teng (2024) demonstrated that scaffolded cognitive and metacognitive strategy instruction improves learners' comprehension by increasing strategic awareness and self-regulated learning behaviors. The current study supports these findings by showing that students who received systematic instruction in prediction, summarization, inference, questioning, and comprehension monitoring achieved higher comprehension gains than students exposed to conventional reading instruction.

However, the magnitude and pattern of improvement in the present study also reveal some contextual differences from previous research. While some international studies report immediate and substantial improvements in both comprehension and metacognitive awareness, the present study found that students required considerable time to apply multiple strategies independently. This difference may be explained by variations in learners' previous educational experiences, exposure to English reading materials, and instructional traditions. In many EFL contexts where learners have experienced teacher-centered approaches for extended periods, strategic reading requires not only learning new techniques but also changing established beliefs about the role of the reader. Therefore, strategy instruction represents both a cognitive intervention and a pedagogical transition.

Recent research by Li and Gan (2025) found that strategy instruction particularly enhances higher-order comprehension processes such as inference-making, critical evaluation, and integration of ideas. The current findings partially confirm this observation because students demonstrated improvement in interpreting implicit meanings and connecting ideas across texts. However, the present study also observed that some learners continued to struggle with complex inferential tasks. This deviation may be attributed to differences in language proficiency and

background knowledge. Kintsch's (1998) Construction–Integration Model explains that comprehension depends not only on strategic processing but also on the availability of relevant knowledge structures. Therefore, although strategies provide learners with tools for processing information, limited vocabulary and insufficient background knowledge may constrain the depth of comprehension.

A major contribution of the present study is the inclusion of students' perceptions as an explanatory variable. While many previous intervention studies focus primarily on achievement outcomes, examining learners' perceptions provides insight into the psychological and instructional processes underlying improvement.

The findings showed that students developed more positive perceptions toward reading after receiving cognitive strategy instruction. Students reported that reading became more manageable, purposeful, and engaging because strategies provided clear procedures for approaching difficult texts. This finding corresponds with recent studies emphasizing that learners' acceptance of instructional strategies influences their willingness to apply those strategies independently. For example, recent research on strategic reading environments has shown that students who perceive strategies as useful demonstrate greater strategic engagement and stronger comprehension outcomes.

The present finding is similar to the results reported by Ethiopian researchers such as Taye (2021), Alemayehu (2023), and Birhanu (2025), who found that strategy-based instruction increased students' participation, confidence, and learner autonomy. However, the current study extends these findings by demonstrating that perceptions may operate as a mechanism linking instruction with achievement. Students did not simply learn strategies; they changed their beliefs about reading itself. They moved from perceiving reading as a process of translation and memorization toward understanding reading as an active process of meaning construction.

A slight deviation from some previous studies was observed. While some research reports immediate increases in learners' confidence after strategy instruction, the current study found stronger changes in perceptions than in measured self-efficacy. This suggests that changes in students' understanding of reading may occur before stable changes in self-belief emerge.

Bandura (1997) explains that self-efficacy develops through repeated mastery experiences and personal interpretation of success. Therefore, positive perceptions may represent an early stage in the development of stronger self-efficacy beliefs.

The present study found that cognitive reading strategy instruction significantly improved intrinsic motivation, particularly students' curiosity, enjoyment, and willingness to engage with texts. This finding is consistent with Guthrie and Wigfield's (2000) theory of reading engagement, which emphasizes that motivated readers actively participate in reading because they perceive reading activities as meaningful and achievable.

Recent studies similarly demonstrate that strategy instruction enhances motivation by increasing learners' sense of competence and control. Chen and Wang (2024), for example, reported that strategy-based instruction improves engagement because students experience reduced cognitive difficulty and greater confidence when approaching texts. The current study confirms this explanation because students frequently reported that strategies reduced confusion and helped them understand texts more independently.

However, the limited improvement in extrinsic motivation represents an important deviation from some previous intervention studies. Some researchers have found increases in both intrinsic and extrinsic motivation following instructional interventions. In contrast, the present study found that external factors such as grades, competition, and rewards remained relatively unchanged. This difference can be explained through Deci and Ryan's (2000) Self-Determination Theory. The intervention primarily influenced internal psychological needs—autonomy and competence—rather than external reward structures. Since the classroom environment and assessment system remained unchanged, limited changes in extrinsic motivation were expected.

An important and theoretically significant finding of this study was that self-efficacy improved less dramatically than reading comprehension and motivation. This result differs from studies that report strong immediate relationships between strategy instruction and self-efficacy enhancement.

However, this deviation can be theoretically explained. Bandura (1997) argues that self-efficacy develops gradually through repeated mastery experiences. Improvement in performance does not automatically produce stronger confidence unless learners recognize that success resulted from their own competence and strategic effort. In the present study, students demonstrated improved performance and expressed greater confidence during interviews, but questionnaire results showed only moderate changes. This suggests that students' psychological beliefs were still developing.

Recent studies support this interpretation. Research by Chen and Zhang (2023) indicates that reflection activities, self-monitoring, and feedback are necessary for converting successful experiences into stable self-efficacy beliefs. The present study found limited opportunities for structured reflection, which may explain why self-efficacy gains were slower.

This finding contributes to the literature by demonstrating that cognitive, motivational, perceptual, and psychological changes do not occur simultaneously. Reading comprehension may improve first because strategies directly influence cognitive processing, while self-efficacy requires longer-term internalization.

Taken together, the similarities and deviations between the present study and previous research demonstrate that cognitive reading strategy instruction is a powerful but complex intervention. The strongest and most immediate effects occurred in comprehension and perceptions of reading, followed by intrinsic motivation, while self-efficacy developed more gradually. This pattern suggests a developmental pathway:

Strategy instruction → Positive perceptions → Increased strategic engagement → Improved comprehension → Enhanced motivation and self-efficacy

The contribution of the present study lies in demonstrating this interconnected process within an Ethiopian EFL context. Unlike studies that examine reading achievement alone, this research shows that successful reading development involves changes in students' cognitive processes, beliefs, motivation, and perceptions. Therefore, effective reading instruction should not only teach students strategies but also help them understand the value of strategies, reflect on their progress, and develop confidence as independent readers.

The findings of the present study indicate that the influence of cognitive reading strategy instruction cannot be fully understood by examining reading comprehension outcomes alone. Although the improvement in comprehension scores provides direct evidence of instructional effectiveness, the qualitative and affective findings demonstrate that the intervention produced broader changes in students' psychological orientation toward reading. Specifically, changes in students' perceptions, motivation, and self-efficacy reveal that cognitive strategy instruction influenced not only what students were able to do as readers but also how they viewed themselves as readers. This finding is theoretically significant because it supports contemporary perspectives that conceptualize reading development as an interaction between cognitive competence, affective engagement, and self-regulatory beliefs.

The relationship among these variables suggests that cognitive reading strategy instruction operated through multiple pathways. First, explicit instruction introduced students to concrete procedures for approaching texts, which improved their strategic competence. Second, successful experiences using these strategies appeared to reshape students' perceptions of reading by reducing the belief that comprehension depends primarily on translation or teacher assistance. Third, these positive perceptions encouraged greater engagement and persistence, contributing to improvements in intrinsic motivation. Finally, repeated experiences of successful comprehension created conditions for gradual development of self-efficacy beliefs. Thus, the findings suggest that strategy instruction represents not merely a cognitive intervention but a comprehensive instructional process that influences learners' knowledge, beliefs, and behaviors.

This interpretation is consistent with Zimmerman's (2002) theory of self-regulated learning, which explains learning as a cyclical process involving forethought, performance, and self-reflection. During the intervention, students gradually developed skills associated with each stage of this cycle. Before reading, they learned to plan through prediction and activation of prior knowledge. During reading, they monitored understanding and applied corrective strategies. After reading, they evaluated comprehension through summarization and reflection. These processes indicate that students were developing greater control over their learning, moving from externally guided reading toward more independent strategic behavior.

Recent research supports this interpretation. Studies conducted in EFL contexts between 2023 and 2025 have increasingly emphasized that effective reading instruction requires integration of cognitive strategy training with metacognitive awareness and learner engagement. Teng (2024), for example, reported that strategy instruction is most effective when learners understand not only how to apply strategies but also when and why specific strategies should be used. The present study extends this finding by demonstrating that students' perceptions represent a critical link between strategy awareness and strategy application. Students who perceived strategies as useful were more willing to employ them independently, while those who remained uncertain about their usefulness showed slower development.

A particularly important finding of this study is that students' perceptions changed before all measurable outcomes improved equally. While comprehension scores showed substantial improvement and motivation increased significantly, self-efficacy gains were comparatively limited. This pattern suggests that learners' cognitive understanding of effective reading practices may develop more rapidly than their deeper beliefs about personal competence. In other words, students first recognized that strategies were valuable before fully internalizing the belief that they themselves were capable strategic readers.

This finding represents an important contribution because some previous studies have assumed that improved performance automatically results in increased self-efficacy. However, the current findings indicate a more complex relationship. Bandura (1997) argues that individuals interpret their experiences through personal beliefs and contextual influences. A successful reading experience contributes to self-efficacy only when learners attribute that success to their own effort, ability, and effective strategies. In the present study, students may have recognized improvement while still viewing successful comprehension as partly dependent on teacher guidance and external support. This interpretation explains why interview responses reflected increasing confidence, whereas questionnaire measures showed more moderate changes.

The findings also reveal the importance of considering cultural and educational contexts when interpreting self-efficacy outcomes. In Ethiopian educational settings, students are often socialized into teacher-centered learning environments where teachers are viewed as the primary sources of knowledge. As a result, students may demonstrate improved performance without

immediately developing strong beliefs in their own independent capabilities. The transition from dependent learning habits to autonomous learning identities requires sustained opportunities for decision-making, reflection, and independent practice. Therefore, the modest self-efficacy improvement observed in the present study should not be interpreted as a failure of the intervention but rather as evidence that psychological transformation requires longer periods of instructional support.

The role of students' perceptions is particularly important in explaining this process. Positive perceptions served as a foundation for engagement because students who viewed strategies as beneficial demonstrated greater willingness to participate in reading activities. This finding aligns with Guthrie and Wigfield's (2000) engagement perspective, which emphasizes that motivated readers are those who perceive reading as meaningful and within their capability. The current study confirms that students became more engaged when strategies reduced uncertainty and provided practical solutions to comprehension difficulties.

However, the relationship between motivation and strategy use was not entirely uniform. Although intrinsic motivation increased significantly, extrinsic motivation remained relatively stable. This difference represents an important deviation from studies that report broader motivational effects following instructional interventions. The explanation lies in the nature of the intervention itself. Cognitive reading strategy instruction primarily affected students' internal experiences of competence, control, and enjoyment. It did not significantly alter external conditions such as examination requirements, grading systems, parental expectations, or academic competition.

This finding supports Deci and Ryan's (2000) Self-Determination Theory, which distinguishes between autonomous motivation and controlled motivation. The intervention created opportunities for autonomy because students learned strategies that allowed them to approach texts independently. It also strengthened competence because students experienced greater success in understanding difficult materials. However, because external reward structures remained unchanged, extrinsic motivation was unlikely to demonstrate substantial improvement. This finding contributes to the literature by demonstrating that instructional interventions may influence different motivational dimensions differently.

The findings also provide insights into the challenges associated with transferring strategy knowledge into consistent reading behavior. Although students developed awareness of strategies, some reported difficulties applying multiple strategies simultaneously, particularly with longer academic texts. This finding corresponds with Cognitive Load Theory (Sweller, 1988), which explains that novice learners may experience difficulty when tasks require coordination of multiple unfamiliar processes. At the beginning stages of learning, students must consciously allocate attention to each strategy, increasing cognitive demands. With continued practice, however, strategies become more automatic and require less mental effort.

Recent research by Habók and Magyar (2023) supports this interpretation by showing that strategic reading competence develops gradually through repeated practice and feedback. Similarly, Teng (2024) emphasizes that strategy instruction should be viewed as a long-term developmental process rather than a short-term intervention. The present study confirms this perspective because students demonstrated awareness and partial application of strategies but had not yet reached complete automaticity.

Therefore, the findings suggest that future reading instruction should provide extended opportunities for guided practice, reflection, and independent application. Teachers should not assume that introducing strategies is sufficient; rather, students need repeated experiences using strategies across different text types and difficulty levels. Additionally, reflection activities should be incorporated to help students recognize their progress and attribute success to their own strategic efforts. Such practices are likely to accelerate the development of self-efficacy and strengthen the relationship between perception, motivation, and achievement.

Overall, the interaction among the variables examined in this study demonstrates that reading development is a dynamic process involving reciprocal relationships. Cognitive strategy instruction improved comprehension directly by enhancing students' ability to process texts. At the same time, it influenced perceptions, which shaped students' willingness to engage with reading tasks. Increased engagement strengthened motivation, while repeated successful experiences created conditions for gradual self-efficacy development. The findings therefore support a multidimensional model of reading development in which cognitive, affective, and psychological factors operate together rather than independently.

The findings of this study have important implications for English language education policy, curriculum development, and teacher preparation in Ethiopia. Although improving students' English proficiency has remained a central objective of educational reforms, the persistent challenge of low reading achievement suggests that increasing exposure to English alone is insufficient. The findings demonstrate that learners require explicit support in understanding how to approach, process, and evaluate written texts. Therefore, reading instruction should move beyond the traditional emphasis on vocabulary explanation, translation, and comprehension question answering toward approaches that explicitly develop strategic reading competence.

One important implication is the need to reconsider the position of reading strategies within the Ethiopian English curriculum. Although contemporary curriculum frameworks increasingly emphasize learner-centered approaches and communicative competence, reading strategy instruction is often not systematically integrated into classroom practice. Teachers may introduce reading activities but provide limited instruction on the cognitive processes required for successful comprehension. The present study suggests that strategies such as prediction, summarization, inference, questioning, and comprehension monitoring should not be treated as optional classroom techniques but as essential components of reading development.

The findings also challenge the assumption that students naturally acquire effective reading strategies through exposure to texts. While some proficient readers develop strategies independently, many EFL learners require explicit instruction, modeling, and guided practice. This is particularly relevant in contexts such as Ethiopia, where students may have limited opportunities to interact with English outside formal educational settings. Therefore, curriculum documents should provide clearer guidance on when, why, and how teachers should teach reading strategies across different grade levels.

Another important implication concerns teacher education. The success of the intervention depended not only on the strategies themselves but also on the teacher's ability to model strategic thinking and provide appropriate scaffolding. Consequently, teacher education programs should include stronger preparation in cognitive and metacognitive reading instruction. Teachers need opportunities to develop their own understanding of strategic reading processes,

observe effective strategy instruction, and practice implementing these approaches in authentic classroom contexts.

The findings further indicate that teachers should consider students' perceptions as an important component of instructional effectiveness. A strategy may be theoretically effective, but its impact depends partly on whether students perceive it as useful, manageable, and relevant. Therefore, teachers should explain the purpose of strategies, demonstrate their usefulness, and provide opportunities for students to experience successful application. Developing positive perceptions toward reading strategies may be particularly important in educational contexts where students have historically viewed reading as difficult, teacher-controlled, or dependent on translation.

The motivational findings also have implications for classroom practice. Since cognitive strategy instruction produced stronger effects on intrinsic motivation than extrinsic motivation, teachers should create learning environments that emphasize autonomy, competence, and meaningful engagement rather than relying primarily on grades or external rewards. Students should be encouraged to view reading as a tool for knowledge construction and personal development rather than merely as a requirement for examination success.

Furthermore, the gradual development of self-efficacy observed in this study highlights the need for sustained instructional support. Teachers should incorporate reflection activities, self-assessment, and feedback mechanisms that help students recognize their own improvement. Without opportunities to reflect on successful experiences, students may improve performance without developing strong beliefs in their own capabilities. Therefore, effective reading instruction should include not only strategy training but also deliberate activities that strengthen learners' confidence as independent readers.

The present study contributes to the theoretical understanding of reading development by demonstrating that cognitive reading strategy instruction influences multiple dimensions of learning simultaneously. Previous research has often examined reading strategy instruction primarily in relation to achievement outcomes. While these studies provide valuable evidence regarding effectiveness, they provide limited explanation of the psychological processes through which instructional interventions produce change. By incorporating students' perceptions,

motivation, and self-efficacy alongside comprehension outcomes, the current study provides a more comprehensive model of reading development.

The findings support and extend Kintsch's (1998) Construction–Integration Model by demonstrating that successful comprehension depends on more than cognitive processing alone. Although strategy instruction improved students' ability to construct meaning from texts, the findings show that learners' interpretations of the reading process also influence their engagement with strategies. Students who perceived strategies positively were more likely to apply them, suggesting that comprehension development involves interaction between cognitive mechanisms and learner beliefs.

The study also extends Pressley's (2002) theory of strategic reading by demonstrating that strategy instruction involves a gradual transformation in students' identities as readers. Students did not simply acquire techniques for answering comprehension questions; rather, they developed new understandings about what successful reading requires. The movement from passive reading behavior toward strategic engagement represents an important conceptual contribution, particularly within EFL contexts where traditional approaches have often emphasized teacher explanation.

Furthermore, the findings contribute to Bandura's (1997) self-efficacy theory by showing that improvements in performance and improvements in self-beliefs do not necessarily occur simultaneously. The study provides evidence that self-efficacy development may follow a slower trajectory than cognitive improvement. This suggests that educational interventions should consider psychological development as a gradual process requiring repeated mastery experiences, reflection, and learner interpretation.

The integration of motivation theory also represents an important contribution. Consistent with Deci and Ryan's (2000) Self-Determination Theory and Guthrie and Wigfield's (2000) engagement perspective, the study demonstrates that instructional approaches influence motivation primarily through students' experiences of competence and autonomy. However, the findings further show that different motivational dimensions respond differently to intervention.

Intrinsic motivation increased because students experienced greater control and success, whereas extrinsic motivation remained relatively stable because external structures were unchanged.

A major original contribution of this study is the identification of students' perceptions as an explanatory variable connecting instructional practices with learning outcomes. Perceptions have often been treated as supplementary qualitative information rather than as a meaningful component of educational change. The present study demonstrates that perceptions help explain why some instructional interventions produce stronger outcomes than others. Students' interpretations of strategies influenced their willingness to use them, their engagement with reading activities, and their developing confidence.

The findings of this study demonstrate that cognitive reading strategy instruction represents an effective approach for improving English language students' reading development. However, the contribution of the intervention extends beyond improved comprehension scores. The study reveals that reading development involves interconnected cognitive, motivational, psychological, and perceptual processes.

The strongest and most immediate effect of the intervention was observed in reading comprehension. Students developed more effective approaches to processing texts and demonstrated greater ability to identify important information, construct meaning, and monitor understanding. These improvements confirm that explicit strategy instruction provides learners with essential tools for becoming successful readers.

At the same time, the study demonstrates that comprehension improvement is closely connected with changes in students' perceptions and motivation. Students who recognized the usefulness of strategies became more engaged and willing to participate in reading activities. This indicates that successful reading instruction requires attention not only to what students learn but also to how they interpret and value the learning process.

The findings regarding self-efficacy provide an important theoretical insight. While students demonstrated improved performance and increased confidence, changes in self-beliefs developed more gradually. This highlights the importance of sustained instructional support and reflection opportunities. Teachers should recognize that building confident readers requires time, repeated

success experiences, and encouragement that helps learners attribute achievement to their own abilities and efforts.

Overall, the study challenges narrow views of reading instruction that focus only on skill development. Instead, it demonstrates that effective reading pedagogy must address the relationship among knowledge, beliefs, motivation, and perceptions. The Ethiopian EFL context particularly benefits from this integrated perspective because many learners require support not only in developing language skills but also in developing identities as capable and independent readers.

The originality of the study lies in demonstrating how cognitive strategy instruction produces educational change through multiple interconnected pathways. By integrating comprehension, motivation, self-efficacy, and perceptions within one framework, the study provides a more comprehensive explanation of reading development. The findings therefore contribute to both theory and practice by showing that effective reading instruction is not simply a matter of teaching students what strategies to use; it is a process of transforming how students understand reading, how they engage with texts, and how they perceive themselves as learners.

In conclusion, cognitive reading strategy instruction should be viewed as a multidimensional intervention that develops strategic competence, enhances engagement, reshapes perceptions, and gradually strengthens learners' confidence. For Ethiopian EFL education, the findings provide evidence supporting a shift toward explicit strategy-based, learner-centered, and psychologically supportive approaches to reading instruction.

Chapter Six: Summary, Conclusions and Recommendations

6.1 Summary

This study examined the effect of cognitive reading strategy instruction on students' reading comprehension achievement, reading motivation, reading self-efficacy, and perceptions of reading strategy instruction within an English as a Foreign Language (EFL) context. The study was motivated by the persistent challenges associated with low reading comprehension achievement among EFL learners, particularly in contexts where reading instruction has traditionally emphasized vocabulary explanation, translation, and teacher-directed interpretation rather than strategic engagement with texts. Recognizing reading as a complex process involving cognitive, metacognitive, motivational, and psychological dimensions, the study investigated whether explicit instruction in cognitive reading strategies could improve students' ability to comprehend texts while simultaneously influencing their motivation, confidence, and perceptions of reading.

The study was guided by four major objectives. The first objective was to investigate the effect of cognitive reading strategy instruction on students' reading comprehension achievement. The second objective was to examine the influence of the intervention on students' reading motivation, including intrinsic and extrinsic motivational dimensions. The third objective was to assess the effect of cognitive reading strategy instruction on students' reading self-efficacy beliefs. The fourth objective was to explore students' perceptions of cognitive reading strategy instruction and their experiences of applying strategies during reading activities. These objectives were developed based on the assumption that successful reading development cannot be explained solely through achievement outcomes but requires consideration of learners' cognitive processes, affective engagement, beliefs, and interpretations of instructional experiences.

To achieve these objectives, the study employed a mixed-methods research design based on a pragmatic research paradigm. Quantitative data were collected through reading comprehension tests, reading motivation questionnaires, and self-efficacy scales, while qualitative data were generated through interviews and classroom observations. The integration of these sources

provided a comprehensive understanding of both the measurable outcomes of the intervention and the processes through which students experienced and responded to cognitive reading strategy instruction. The use of methodological triangulation strengthened the credibility of the findings by allowing quantitative patterns to be interpreted alongside students' personal experiences and classroom behaviors.

The findings from the reading comprehension tests demonstrated that cognitive reading strategy instruction had a significant positive effect on students' reading achievement. Although both the experimental and control groups showed improvement between the pre-test and post-test stages, the experimental group achieved significantly higher gains than the control group. This finding confirms that explicit instruction in cognitive reading strategies contributed substantially to students' ability to comprehend academic texts. Therefore, the null hypothesis stating that cognitive reading strategy instruction has no significant effect on students' reading comprehension achievement was rejected, and the alternative hypothesis was accepted.

The improvement in reading comprehension was attributed to students' increased awareness and application of cognitive and metacognitive reading strategies. Through systematic instruction and guided practice, students learned to approach texts more strategically by activating prior knowledge, predicting content, identifying important ideas, making inferences, summarizing information, questioning unclear sections, and monitoring their own understanding. These strategies enabled students to move beyond surface-level reading and develop deeper processes of meaning construction. The findings suggest that comprehension difficulties among EFL learners are not only associated with linguistic limitations but also with insufficient knowledge of how to approach and regulate the reading process.

The findings also demonstrate that cognitive reading strategy instruction contributed to a transformation in students' reading behaviors. Prior to the intervention, many students relied heavily on translation, teacher explanation, and word-by-word reading approaches. Following the intervention, students increasingly viewed reading as an active process requiring strategic decision-making and independent problem-solving. This change indicates that the intervention influenced not only students' performance outcomes but also their understanding of themselves as readers. In this regard, the study contributes to the broader argument that effective reading

instruction should develop strategic competence and learner autonomy rather than focusing only on the final comprehension outcome.

The findings concerning reading motivation revealed a more complex pattern. The intervention produced a generally positive effect on students' motivation, although the magnitude of change differed across motivational dimensions. The strongest improvement was observed in intrinsic motivation, particularly students' curiosity and enjoyment of reading activities. Students reported that cognitive reading strategies made reading tasks more manageable, interesting, and meaningful because they provided clear procedures for dealing with difficult texts. The improvement in curiosity suggests that strategy instruction increased students' willingness to engage with reading because they experienced greater competence and reduced uncertainty.

However, other aspects of intrinsic motivation, such as perceived importance and involvement, demonstrated only modest improvement. Similarly, extrinsic motivation remained relatively stable throughout the intervention period. These findings indicate that cognitive reading strategy instruction primarily influenced students' internal engagement with reading rather than external reasons for participation. Since the intervention focused on improving competence, autonomy, and strategic control rather than modifying external reward systems, limited changes in extrinsic motivation were expected. This finding highlights the multidimensional nature of motivation and demonstrates that different motivational components may respond differently to instructional interventions.

The findings related to reading self-efficacy revealed that improvements in students' confidence were more gradual than improvements in comprehension and motivation. Although the experimental group showed a slightly more positive trend than the control group, the statistical improvement in self-efficacy was not significant. This finding suggests that improved reading performance does not automatically result in immediate changes in learners' beliefs about their capabilities. Self-efficacy develops through repeated mastery experiences, reflection, feedback, and learners' interpretation of their own success. Therefore, the intervention period may have been sufficient to improve students' reading abilities but insufficient to produce strong and stable changes in their self-beliefs.

Nevertheless, qualitative findings indicated that students perceived themselves as becoming more confident readers. During interviews, students reported reduced anxiety, increased willingness to attempt difficult texts, and greater confidence in using strategies independently. The difference between questionnaire results and interview evidence suggests that changes in self-efficacy may have been emerging but had not yet fully developed into stable measurable beliefs. This finding contributes to a more nuanced understanding of learner development by demonstrating that cognitive improvement, perceptual change, motivation, and self-efficacy development may occur at different rates.

Students' perceptions of cognitive reading strategy instruction represented another significant finding of the study. The qualitative evidence revealed overwhelmingly positive perceptions toward the intervention. Students viewed cognitive reading strategies as useful tools that improved their comprehension, reduced reading difficulties, and increased their ability to approach academic texts independently. They particularly valued strategies such as predicting, skimming, scanning, summarizing, questioning, and problem-solving because these strategies provided practical support for understanding complex reading materials.

The positive perceptions reported by students demonstrate that the intervention influenced not only reading skills but also learners' beliefs about the nature of reading. Students gradually shifted from viewing reading as a process of memorizing information and translating words toward understanding reading as an active process of constructing meaning. This perceptual transformation is an important contribution of the study because learners' beliefs about reading influence their willingness to engage with texts and apply strategies independently.

However, students also identified several challenges associated with implementing cognitive reading strategies. Some students reported forgetting to apply strategies consistently, difficulty coordinating multiple strategies simultaneously, and experiencing cognitive overload when reading longer or more complex texts. These challenges indicate that strategic competence develops gradually and requires continuous practice. Awareness of strategies does not immediately guarantee automatic application; rather, students need sustained opportunities to practice, reflect, and receive feedback until strategies become integrated into their normal reading behavior.

The triangulated findings of the study demonstrate that cognitive reading strategy instruction produced differentiated effects across the investigated variables. The strongest effect was observed in reading comprehension, where students demonstrated substantial improvement in their ability to process and understand texts. A moderate effect was observed in reading motivation, particularly intrinsic motivation and curiosity. Students' perceptions of the intervention were highly positive, indicating strong acceptance and perceived usefulness of strategy instruction. However, changes in self-efficacy were more limited, suggesting that psychological beliefs require longer periods of development and reinforcement.

Overall, the findings demonstrate that cognitive reading strategy instruction should be understood as a multidimensional educational intervention rather than a simple instructional technique. Its effectiveness results from the interaction between cognitive strategy development, positive perceptions, increased engagement, motivational growth, and gradual improvement in learner confidence. The study therefore confirms that improving EFL reading comprehension requires attention not only to what students know about language but also to how they approach reading, how they perceive their abilities, and how they engage emotionally and cognitively with texts.

The study makes several contributions to knowledge. First, it provides empirical evidence that cognitive reading strategy instruction is effective in improving EFL students' reading comprehension within the Ethiopian educational context. Second, it demonstrates that reading development involves interconnected cognitive, motivational, and psychological processes rather than a single achievement dimension. Third, by including students' perceptions as a central variable, the study provides deeper insight into how and why instructional interventions influence learner behavior and outcomes. Finally, the study highlights the importance of integrating cognitive strategy instruction with metacognitive reflection, motivational support, and sustained classroom practice to promote long-term development of strategic, autonomous, and confident readers.

In conclusion, this study confirms that cognitive reading strategy instruction represents an effective approach for enhancing EFL learners' reading comprehension and engagement. However, achieving comprehensive and sustainable reading development requires a broader

instructional framework that combines cognitive strategies with metacognitive awareness, motivational enhancement, self-efficacy development, and positive learner perceptions. Such an integrated approach has significant potential for improving English reading instruction and supporting the development of independent readers in Ethiopian and similar EFL contexts.

6.2 Conclusions

The present study investigated the effects of cognitive reading strategy instruction on first-year students' reading comprehension, reading motivation, reading self-efficacy, and perceptions of reading strategy instruction at Addis Ababa University. By employing multiple complementary instruments, including reading comprehension tests, motivation questionnaires, self-efficacy scales, interviews, and classroom observations, the study generated a comprehensive understanding of how cognitive reading strategy instruction influences not only students' reading performance but also their psychological and behavioral engagement with academic reading. Taken together, the findings reveal a consistent pattern: explicit and systematic instruction in cognitive reading strategies significantly improves students' reading comprehension and transforms their approaches to reading, while also contributing to gradual development in motivation, self-efficacy, and perceptions of reading. However, the magnitude and pace of change differ across these dimensions, indicating that reading development is a complex and multidimensional process.

The strongest conclusion emerging from the study is that cognitive reading strategy instruction is an effective pedagogical approach for improving EFL students' reading comprehension achievement. The experimental group demonstrated significantly greater improvement than the control group, confirming that explicit instruction in strategies such as prediction, summarization, questioning, inference-making, skimming, scanning, and comprehension monitoring enhances learners' ability to construct meaning from academic texts. The findings indicate that students who received strategy instruction developed more effective ways of processing information, identifying important ideas, interpreting implicit meanings, and monitoring their understanding. Therefore, the study provides empirical evidence that reading comprehension difficulties among EFL learners cannot be addressed only through increased

exposure to language input or vocabulary development; rather, learners must also be equipped with the cognitive tools necessary for effective text processing.

The significant difference between the experimental and control groups further demonstrates that conventional reading instruction alone may not be sufficient to develop higher-order comprehension skills. While students in the control group received regular classroom instruction, their improvement was comparatively limited. This suggests that traditional approaches that emphasize explanation, translation, and comprehension question answering may support basic understanding but may not adequately develop strategic awareness and independent reading abilities. The findings therefore support a shift toward learner-centered reading instruction in which students are explicitly taught how to approach, analyze, and regulate their comprehension of texts.

Beyond demonstrating statistical improvement, the study concludes that cognitive reading strategy instruction produced a qualitative transformation in students' reading behaviors. Students gradually shifted from passive approaches characterized by word-level decoding and dependence on teacher explanation toward active approaches involving prediction, questioning, summarization, and self-monitoring. This transformation suggests that the intervention influenced not only what students achieved but also how they understood the nature of reading itself. Students increasingly recognized that successful comprehension depends on active engagement, strategic decision-making, and personal responsibility rather than simply understanding individual words or waiting for teacher explanations.

However, the findings also demonstrate that the effectiveness of strategy instruction is influenced by individual and contextual factors. Although the overall effect was positive, students did not benefit equally or develop strategic competence at the same rate. Differences in prior knowledge, English proficiency, reading experience, learning beliefs, and engagement influenced how quickly students adopted and applied strategies. This indicates that cognitive reading strategy instruction should not be viewed as a fixed intervention that produces identical outcomes for all learners. Rather, it should be implemented as a sustained, adaptive, and differentiated instructional process that considers learners' existing abilities and provides continuous opportunities for guided practice.

Regarding reading self-efficacy, the study concludes that improvements in students' reading abilities and improvements in their beliefs about their abilities do not necessarily occur simultaneously. Although students in the experimental group demonstrated increased confidence and more positive attitudes toward reading, the quantitative improvement in self-efficacy was limited compared with the substantial gains observed in comprehension. This finding suggests that self-efficacy develops more gradually than cognitive competence. Students first experience successful performance and increased understanding before they fully internalize the belief that they are capable and independent readers.

This conclusion has important theoretical and pedagogical implications. Consistent with Bandura's (1997) social cognitive theory, self-efficacy develops through repeated mastery experiences, feedback, reflection, and personal interpretation of success. Therefore, short-term improvement in reading performance may not immediately translate into strong self-beliefs. The findings suggest that teachers should intentionally incorporate reflection activities, self-assessment opportunities, and positive feedback into reading instruction so that students can recognize their own progress and attribute success to their strategic efforts. In this way, cognitive strategy instruction can contribute not only to improved performance but also to the gradual development of confident and autonomous readers.

The study also concludes that cognitive reading strategy instruction has a meaningful but selective influence on reading motivation. The strongest motivational improvement occurred in intrinsic motivation, particularly students' curiosity, enjoyment, and willingness to engage with reading tasks. This indicates that strategy instruction can make reading more meaningful and accessible by reducing uncertainty and providing learners with practical methods for overcoming comprehension difficulties. When students experience success and greater control over reading tasks, they become more willing to engage with texts and persist during challenging activities.

However, the findings demonstrate that extrinsic motivation remained relatively stable. This suggests that classroom-level instructional interventions are more effective in influencing internal motivational processes than external motivational structures. Factors such as examination requirements, grading systems, institutional expectations, and social pressures are shaped by broader educational contexts and may not change significantly through a single

instructional intervention. Therefore, the study concludes that cognitive reading strategy instruction primarily strengthens autonomous motivation by increasing learners' competence, independence, and engagement rather than altering externally controlled forms of motivation.

A major conclusion of the study concerns the role of students' perceptions of cognitive reading strategy instruction. Unlike many intervention studies that focus primarily on achievement outcomes, the present study demonstrates that students' perceptions provide important evidence about how and why instructional change occurs. Students developed increasingly positive perceptions of reading strategies, viewing them as useful, practical, and effective tools for understanding academic texts. They reported that strategies reduced reading difficulties, improved their ability to organize information, and increased their confidence when dealing with unfamiliar materials.

The study concludes that perceptions function as an important bridge between instructional practices and learner outcomes. When students perceive strategies as valuable and manageable, they are more likely to apply them consistently, engage with reading activities, and develop greater ownership of their learning. The positive relationship among strategy instruction, perceptions, motivation, and comprehension suggests that successful reading development involves not only teaching strategies but also helping students understand their purpose and relevance.

The classroom observation findings further strengthen this conclusion by providing behavioral evidence of instructional impact. Students in the experimental group demonstrated increased participation, greater use of strategic behaviors, and more active engagement with texts. In contrast, students in the control group continued to demonstrate more passive reading behaviors. These observations confirm that the effects of the intervention extended beyond test performance and self-reported attitudes, resulting in observable changes in classroom learning practices.

The interview findings provide additional explanation for these outcomes. Students described cognitive reading strategies as tools that helped them manage difficult texts, organize information, and overcome uncertainty during reading. Their experiences suggest that strategy instruction reduced cognitive barriers and changed their emotional relationship with reading.

Instead of perceiving reading as an overwhelming activity dependent on external assistance, students increasingly viewed it as a manageable process that could be improved through appropriate strategies and effort.

Nevertheless, the study concludes that strategy acquisition and application require sustained support. Although students developed awareness of cognitive strategies and recognized their usefulness, some continued to experience difficulties applying strategies consistently, particularly when dealing with longer and more complex texts. This indicates that strategic reading competence develops progressively and requires continued classroom reinforcement. Teachers should therefore provide repeated practice, modeling, feedback, and opportunities for independent application to help students move from conscious strategy use toward automatic and flexible application.

Overall, the findings lead to the conclusion that cognitive reading strategy instruction represents a comprehensive approach to EFL reading development. Its impact extends beyond improving comprehension achievement to influencing students' perceptions, motivation, confidence, and engagement with reading. However, these dimensions do not develop at the same speed. Cognitive improvement emerges most rapidly because strategies directly influence text-processing abilities, while motivational, perceptual, and self-efficacy changes require longer periods of experience and reflection.

The study therefore concludes that effective reading instruction should adopt an integrated framework combining cognitive strategy instruction with metacognitive awareness, motivational support, self-efficacy development, and positive learner perceptions. Such an approach recognizes that successful readers are not only individuals who possess knowledge of strategies but also learners who believe in their ability to use those strategies, value reading activities, and perceive themselves as capable meaning-makers.

In relation to the Ethiopian EFL context, the study concludes that cognitive reading strategy instruction provides a promising alternative to traditional approaches that have often emphasized reproduction of information rather than independent comprehension. By developing students' strategic competence and learner autonomy, strategy-based instruction has the potential to

address persistent challenges in academic reading and contribute to improved English language learning outcomes. Therefore, this study contributes evidence supporting a broader transformation of reading pedagogy toward approaches that develop not only skilled readers but also motivated, confident, and self-regulated learners.

6.3 Recommendations

Based on the findings and conclusions of this study, several recommendations are proposed for major stakeholders involved in English language education, including EFL teachers, students, curriculum developers, teacher education institutions, policymakers, and educational administrators. These recommendations are derived from the evidence that cognitive reading strategy instruction significantly improves reading comprehension, enhances intrinsic motivation, promotes positive perceptions of reading, and contributes gradually to the development of self-efficacy. However, the findings also indicate that sustainable improvement requires continuous support, integration of cognitive and affective dimensions, and systematic implementation beyond short-term classroom interventions.

The findings of this study strongly recommend that EFL teachers integrate explicit cognitive reading strategy instruction into regular reading lessons rather than treating strategies as occasional supplementary techniques. The significant improvement observed in the experimental group demonstrates that students benefit when teachers systematically teach learners how to approach, process, and evaluate texts. Therefore, teachers should move beyond traditional practices that emphasize vocabulary explanation, translation, and comprehension questions and adopt instructional approaches that make reading processes visible to learners.

Teachers are particularly encouraged to provide explicit modeling of strategies such as predicting, activating prior knowledge, questioning, summarizing, inferring, clarifying, and monitoring comprehension. Rather than simply asking students to read and answer questions, teachers should demonstrate their own thinking processes through think-aloud techniques and guided practice. Such approaches can help students understand not only what strategies are used but also why, when, and how they should be applied. This is particularly important because the

findings showed that students developed awareness of strategies but still experienced difficulties applying multiple strategies independently.

The study also recommends that teachers gradually transfer responsibility from teacher guidance to learner independence. Initially, students may require substantial scaffolding, modeling, and feedback; however, continued support should encourage learners to regulate their own reading processes. Teachers should therefore create opportunities for students to make strategic decisions, evaluate their comprehension, and reflect on the effectiveness of different strategies. Such practices are likely to strengthen both strategic competence and self-efficacy because students begin to recognize their own role in successful reading.

Given that students' perceptions strongly influenced their engagement with strategy instruction, teachers should also explicitly communicate the value and purpose of reading strategies. Students are more likely to adopt strategies when they perceive them as useful, practical, and relevant to their academic goals. Therefore, teachers should provide explanations of how strategies improve comprehension and demonstrate their usefulness across different text types and academic tasks.

The findings regarding motivation suggest that teachers should design reading activities that promote autonomy, competence, and meaningful engagement. Since intrinsic motivation improved more strongly than extrinsic motivation, classroom practices should emphasize curiosity, exploration, and personal connection with texts rather than relying primarily on grades or external rewards. Teachers are encouraged to incorporate authentic reading materials, including academic articles, newspapers, digital texts, and discipline-related materials, to expose students to purposeful reading experiences.

Furthermore, teachers should intentionally support the development of self-efficacy by creating opportunities for successful reading experiences. Since students' confidence developed more slowly than their comprehension skills, teachers should provide constructive feedback, acknowledge progress, encourage reflection, and help learners recognize the relationship between strategic effort and successful performance. Through continuous encouragement and guided reflection, students can gradually develop stronger beliefs in their own reading abilities.

The findings indicate that students play an active role in determining the effectiveness of cognitive reading strategy instruction. Therefore, students are encouraged to take greater responsibility for developing strategic reading habits both inside and outside the classroom. Learning strategies should not be viewed as classroom requirements but as lifelong tools for understanding academic and professional texts.

Students are recommended to practice cognitive reading strategies consistently across different reading situations. Regular use of prediction, summarization, questioning, inference, and comprehension monitoring can help students transform strategies from conscious techniques into more automatic reading behaviors. Since the study found that some students experienced difficulties maintaining strategy use, continuous individual practice is necessary for developing strategic independence.

Students are also encouraged to engage in reflective learning practices. Maintaining reading journals, learning logs, or reflection notes can help students monitor their comprehension, identify difficulties, evaluate strategy effectiveness, and recognize improvement over time. Such reflective activities are particularly important for strengthening self-efficacy because they help learners interpret successful experiences as evidence of their own developing competence.

In addition, students should establish realistic and progressive reading goals. The findings showed that motivation develops through successful experiences; therefore, students should avoid viewing reading improvement as an immediate outcome and instead focus on gradual development through consistent practice. Setting achievable goals can maintain motivation, increase persistence, and support the development of confidence.

Peer-supported learning is also recommended. Collaborative activities such as discussing texts, explaining strategies to classmates, comparing interpretations, and solving comprehension problems collectively can provide additional support and expose students to different ways of understanding texts. Such interaction may strengthen both comprehension and motivation by creating a supportive learning community.

The findings suggest that cognitive reading strategy instruction should be systematically incorporated into EFL curricula rather than depending solely on individual teachers' decisions.

Curriculum developers should consider reading strategy instruction as a fundamental component of academic literacy development, particularly in higher education contexts where students are expected to engage with increasingly complex academic texts.

Curricula should provide structured opportunities for students to encounter, practice, and transfer reading strategies across different courses and academic disciplines. A single intervention period may introduce strategies effectively, but long-term development requires repeated exposure and reinforcement. Therefore, strategy instruction should be integrated progressively throughout English language programs rather than being limited to one course or semester.

Curriculum designers should also include diverse and authentic reading materials that reflect students' academic needs and real-world literacy demands. Incorporating academic texts, digital resources, professional materials, and discipline-specific readings can help students understand the practical value of strategic reading. Such diversity can also enhance motivation by making reading tasks more meaningful and connected to learners' future academic and professional goals.

Furthermore, curriculum frameworks should include components that promote metacognitive reflection and self-assessment. Since self-efficacy developed more gradually than comprehension, curricula should provide opportunities for students to evaluate their progress, reflect on successful strategies, and develop awareness of their own learning processes. Integrating reflective activities can help transform short-term achievement into long-term learner confidence.

Higher education institutions should also support the development of academic reading programs that recognize reading as a complex skill requiring continuous development. Support services such as reading centers, academic literacy workshops, and peer tutoring programs could complement classroom instruction and provide additional opportunities for students to strengthen strategic reading abilities.

The findings highlight the need to strengthen teacher preparation and professional development in the area of cognitive and strategic reading instruction. Teacher education programs should

provide future teachers with both theoretical understanding and practical experience in implementing strategy-based approaches.

Pre-service and in-service teacher training should include components related to cognitive reading processes, metacognitive instruction, motivational support, and methods for developing learner autonomy. Teachers need not only knowledge of reading strategies but also the pedagogical skills required to model strategies, scaffold learning, assess strategy use, and support diverse learners.

Professional development programs should also address teachers' beliefs about reading instruction. Since traditional teacher-centered approaches remain influential in many EFL contexts, teachers may require support in transitioning toward approaches that emphasize student participation, strategic thinking, and independent learning. Continuous professional learning communities can provide opportunities for teachers to share experiences, examine classroom practices, and improve implementation.

At the policy level, the findings demonstrate the importance of supporting evidence-based approaches to English language education. Policymakers and educational administrators should recognize cognitive reading strategy instruction as an effective approach for improving academic literacy and should create conditions that allow teachers to implement such approaches successfully.

One important recommendation is the development of sustained professional development initiatives that equip teachers with the knowledge and skills necessary for effective strategy instruction. Training programs should be accompanied by ongoing support rather than one-time workshops because effective implementation requires practice, reflection, and adaptation.

Educational authorities should also improve access to diverse reading resources. Libraries, digital platforms, online databases, and technology-supported reading environments can provide students with increased exposure to different types of texts and opportunities to apply strategies beyond classroom settings. Since limited exposure to English texts remains a challenge in many EFL contexts, expanding reading resources is essential for long-term literacy development.

Furthermore, policymakers should encourage research-informed educational practices and support longitudinal research examining the sustainability of strategy instruction effects. The present study demonstrates positive short-term outcomes, but future policy decisions would benefit from evidence regarding long-term strategy retention, transfer across disciplines, and effects on academic achievement.

Overall, the findings of this study support a coordinated and multi-level approach to improving EFL reading outcomes. Teachers should implement explicit strategy instruction and reflective practices; students should actively engage in strategic and self-regulated learning; curriculum developers should integrate cognitive and motivational components systematically; teacher education institutions should strengthen preparation in strategic reading pedagogy; and policymakers should provide resources, professional support, and research-based educational policies.

The central recommendation emerging from this study is that reading development should be approached as a multidimensional process involving cognitive skills, learner beliefs, motivation, and perceptions. Improving students' reading achievement requires more than teaching them how to answer comprehension questions; it requires developing strategic, motivated, confident, and independent readers who can apply effective reading practices beyond the classroom. By adopting such an integrated approach, Ethiopian higher education institutions can make significant progress toward improving students' academic literacy and preparing them for successful participation in knowledge-based academic and professional environments.

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Lists of Appendices

Appendix A: Specific Training Schedule for Main Study

N0	Activities	Time	Practitioners	Invigilators	Materials	Remark
1	Orientation to students Conducting questionnaire&test	Week1	Investigator Invited lecturer	Investigator	Exam papers	Photo will be recorded
2	Training on theoretical parts	Week2	Data collectors	Data collectors	LCD	»
3	Training on theoretical parts	Week3	Data collectors	Researcher	LCD	»
4	Training on theoretical parts	Week 4	Data collectors	Researcher	LCD	»
4	Training on theoretical parts	Week 5	»	Researcher	LCD	»
5	Practice&reflection	Week 5	»	»	Module	»
7	Practice &reflection	Week 6	»	»	Module	»
8	Practice &reflection	Week 7	»	»	Module	»
9	Practice &reflection	Week 8	»	»	Module	»
10	Practice&reflection	Week 9	»	»	Module	»
11	Practice &reflection	Week 11	Data collectors	»	Module	»
12	Reflections and questionnaires	Week 12	Data collectors	Researcher	-	
13	Post test	Week13	Data collectors	Researcher	Papers	»
14	Interview	Week 14	Investigator	Investigator	Records	

Appendix B. Reading comprehension tests for Main Study

ID_____ Section _____ Time allowed: 1:30 hr

Reading 1

Directions: Read the passage very carefully and choose the best answer from the given alternatives and write your answer on the space provided.

Extinction of the Dinosaurs

Paragraph

1. Paleontologists have argued for a long time that the demise of the dinosaurs was caused by climatic alterations associated with slow changes in the positions of continents and seas resulting from plate tectonics. Off and on throughout the Cretaceous (the last period of the Mesozoic era, during which dinosaurs flourished), large shallow seas covered extensive areas of the continents. Data from diverse sources, including geochemical evidence preserved in seafloor sediments, indicate that the Late Cretaceous climate was milder than today's. The days were not too hot, nor the nights too cold. The summers were not too warm, nor the winters too frigid. The shallow seas on the continents probably buffered the temperature of the nearby air, keeping it relatively constant.

2. At the end of the Cretaceous, the geological record shows that these seaways retreated from the continents back into the major ocean basins. No one knows why. Over a period of about 100,000 years, while the seas pulled back, climates around the world became dramatically more extreme: warmer days, cooler nights; hotter summers, colder winters. Perhaps dinosaurs could not tolerate these extreme temperature changes and became extinct.

3. If true, though, why did cold-blooded animals such as snakes, lizards, turtles, and crocodiles survive the freezing winters and torrid summers? These animals are at the mercy of the climate to maintain a livable body temperature. It's hard to understand why they would not be affected,

whereas dinosaurs were left too crippled to cope, especially if, as some scientists believe, dinosaurs were warm-blooded. Critics also point out that the shallow seaways had retreated from and advanced on the continents numerous times during the Mesozoic, so why did the dinosaurs survive the climatic changes associated with the earlier fluctuations but not with this one? Although initially appealing, the hypothesis of a simple climatic change related to sea levels is insufficient to explain all the data.

4. Dissatisfaction with conventional explanations for dinosaur extinctions led to a surprising observation that, in turn, has suggested a new hypothesis. Many plants and animals disappear abruptly from the fossil record as one moves from layers of rock documenting the end of the Cretaceous up into rocks representing the beginning of the Cenozoic (the era after the Mesozoic). Between the last layer of Cretaceous rock and the first layer of Cenozoic rock, there is often a thin layer of clay. Scientists felt that they could get an idea of how long the extinctions took by determining how long it took to deposit this one centimeter of clay and they thought they could determine the time it took to deposit the clay by determining the amount of the element iridium (Ir) it contained.

5. Ir has not been common at Earth's surface since the very beginning of the planet's history. Because it usually exists in a metallic state, it was preferentially incorporated in Earth's core as the planet cooled and consolidated. Ir is found in high concentrations in some meteorites, in which the solar system's original chemical composition is preserved. Even today, microscopic meteorites continually bombard Earth, falling on both land and sea. By measuring how many of these meteorites fall to Earth over a given period of time, scientists can estimate how long it might have taken to deposit the observed amount of Ir in the boundary clay. These calculations suggest that a period of about one million years would have been required. However, other reliable evidence suggests that the deposition of the boundary clay could not have taken one million years. So the unusually high concentration of Ir seems to require a special explanation.

6. In view of these facts, scientists hypothesized that a single large asteroid, about 10 to 15 kilometers across, collided with Earth, and the resulting fallout created the boundary clay. Their calculations show that the impact kicked up a dust cloud that cut off sunlight for several months, inhibiting photosynthesis in plants; decreased surface temperatures on continents to below

freezing; caused extreme episodes of acid rain; and significantly raised long-term global temperatures through the greenhouse effect. This disruption of the food chain and climate would have eradicated the dinosaurs and other organisms in less than fifty years.

Directions: Answer the questions.

1. According to paragraph 1, which of the following is true of the Late Cretaceous climate?

A. Summers were very warm and winters were very cold.

B. Shallow seas on the continents caused frequent temperature changes.

C. The climate was very similar to today's climate.

D. The climate did not change dramatically from season to season.

2.. Why does the author mention the survival of **"snakes, lizards, turtles, and crocodiles"** in paragraph 3 ?

A. To argue that dinosaurs may have become extinct because they were not cold-blooded animals

B. To question the adequacy of the hypothesis that climatic change related to sea levels caused the extinction of the dinosaurs

C. To present examples of animals that could maintain a livable body temperature more easily than dinosaurs

D. To support a hypothesis that these animals were not as sensitive to climate changes in the Cretaceous period as they are today

3. According to paragraph 3, which of the following is true of changes in climate before the Cretaceous period and the effect of these changes on dinosaurs?

A. Climate changes associated with the movement of seaways before the Cretaceous period did not cause dinosaurs to become extinct.

B. Changes in climate before the Cretaceous period caused severe fluctuation in sea level, resulting in the extinction of the dinosaurs.

C. Frequent changes in climate before the Cretaceous period made dinosaurs better able to maintain a livable body temperature.

D. Before the Cretaceous period there were few changes in climate, and dinosaurs flourished.

4. The word **"fluctuations"** in the passage is closest in meaning to

A. extremes B. retreats C. periods D. variations

5. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 4? Incorrect choices change the meaning in important ways or leave out essential information.

A. The fossil record suggests that there was an abrupt extinction of many plants and animals at the end of the Mesozoic era.

B. Few fossils of the Mesozoic era have survived in the rocks that mark the end of the Cretaceous.

C. Fossils from the Cretaceous period of the Mesozoic up to the beginning of the Cenozoic era have been removed from the layers of rock that surrounded them.

D. Plants and animals from the Mesozoic era were unable to survive in the Cenozoic era.

6. In paragraph 4, all of the following questions are answered EXCEPT:

A. Why is there a layer of clay between the rocks of the Cretaceous and Cenozoic?

B. Why were scientists interested in determining how long it took to deposit the layer of clay at the end of the Cretaceous?

C. What was the effect of the surprising observation scientists made?

D. Why did scientists want more information about the dinosaur extinctions at the end of the Cretaceous?

7. Paragraph 5 implies that a special explanation of the Ir in the boundary clay is needed because

A. the Ir in microscopic meteorites reaching Earth during the Cretaceous period would have been incorporated into Earth's core

B. the Ir in the boundary clay was deposited much more than a million years ago

C. the concentration of Ir in the boundary clay is higher than in microscopic meteorites

D. the amount of Ir in the boundary clay is too great to have come from microscopic meteorites during the time the boundary clay was deposited

8. The word "disruption" in the passage is closest in meaning to

A. exhaustion B. disturbance C. modification D. disappearance

9. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the **one** answer choice that does not express the most important ideas in the passage. Three sentences belong in the summary because they express ideas that are presented in the passage. You can either write the letter of your answer choice or you can copy the sentence.

For a long time scientists have argued that the extinction of the dinosaurs was related to climate change.

•

Answer Choices

A. Extreme changes in daily and seasonal climates preceded the retreat of the seas back into the major ocean basins.

B. A simple climate change does not explain some important data related to the extinction of the dinosaurs at the end of the Cretaceous.

D. The abruptness of extinctions at the end of the Cretaceous and the high concentration of Ir found in clay deposited at that time have fueled the development of a new hypothesis.

E**.** Some scientists hypothesize that the extinction of the dinosaurs resulted from the effects of an asteroid collision with Earth.

Reading 2

Directions: **Read the passage very carefully and choose the best answer from the given alternatives and write your answer on the space provided.**

1. In 1970 geologists Kenneth J. Hsu and William B. F. Ryan were collecting research data while aboard the oceanographic research vessel Glomar Challenger. An objective of this particular cruise was to investigate the floor of the Mediterranean and to resolve questions about its geologic history. One question was related to evidence that the invertebrate fauna (animals without spines) of the Mediterranean had changed abruptly about 6 million years ago. Most of the older organisms were nearly wiped out, although a few hardy species survived. A few managed to migrate into the Atlantic. Somewhat later, the migrants returned, bringing new species with them. Why did the near extinction and migrations occur?

2. Another task for the Glomar Challenger's scientists was to try to determine the origin of the domelike masses buried deep beneath the Mediterranean seafloor. These structures had been detected years earlier by echo-sounding instruments, but they had never been penetrated in the course of drilling. Were they salt domes such as are common along the United States Gulf Coast, and if so, why should there have been so much solid crystalline salt beneath the floor of the Mediterranean?

3. With questions such as these clearly before them, the scientists aboard the Glomar Challenger proceeded to the Mediterranean to search for the answers. On August 23, 1970, they recovered a sample. The sample consisted of pebbles of hardened sediment that had once been soft, deep-sea mud, as well as granules of gypsum1 and fragments of volcanic rock. Not a single pebble was

found that might have indicated that the pebbles came from the nearby continent. In the days following, samples of solid gypsum were repeatedly brought on deck as drilling operations penetrated the seafloor. Furthermore, the gypsum was found to possess peculiarities of composition and structure that suggested it had formed on desert flats. Sediment above and below the gypsum layer contained tiny marine fossils, indicating open ocean conditions. As they drilled into the central and deepest part of the Mediterranean basin, the scientists took solid, shiny, crystalline salt from the core barrel. Interbedded with the salt were thin layers of what appeared to be windblown silt.

4. The time had come to formulate a hypothesis. The investigators theorized that about 20million years ago, the Mediterranean was a broad seaway linked to the Atlantic by two narrow straits. Crustal movements closed the straits, and the landlocked Mediterranean began to evaporate. Increasing salinity caused by the evaporation resulted in the extermination of scores of invertebrate species. Only a few organisms especially tolerant of very salty conditions remained. As evaporation continued, the remaining brine (salt water) became so dense that the calcium sulfate of the hard layer was precipitated. In the central deeper part of the basin, the last of the brine evaporated to precipitate more soluble sodium chloride (salt). Later, under the weight of overlying sediments, this salt flowed plastically upward to form salt domes. Before this happened, however, the Mediterranean was a vast desert 3,000 meters deep. Then, about 5.5 million years ago came the deluge. As a result of crustal adjustments and faulting, the Strait of Gibraltar, where the Mediterranean now connects to the Atlantic, opened, and water cascaded spectacularly back into the Mediterranean. Turbulent waters tore into the hardened salt flats, broke them up, and ground them into the pebbles observed in the first sample taken by the Challenger. As the basin was refilled, normal marine organisms returned. Soon layers of oceanic ooze began to accumulate above the old hard layer.

5. The salt and gypsum, the faunal changes, and the unusual gravel provided abundant evidence that the Mediterranean was once a desert.

Directions: Answer the questions.

1. Which of the following is NOT mentioned in paragraph 1 as a change that occurred in the fauna of the Mediterranean?

A . Most invertebrate species disappeared during a wave of extinctions.

B. A few hardy species wiped out many of the Mediterranean's invertebrates.

C. Some invertebrates migrated to the Atlantic Ocean.

D. New species of fauna populated the Mediterranean when the old migrants returned.

2. What does the author imply by saying "Not a single pebble was found that might have indicated that the pebbles came from the nearby continent"?

A. The most obvious explanation for the origin of the pebbles was not supported by the evidence.

B. The geologists did not find as many pebbles as they expected.

C. The geologists were looking for a particular kind of pebble.

D. The different pebbles could not have come from only one source.

43. What is the main purpose of paragraph 3 ?

A. To describe the physical evidence collected by Hsu and Ryan

B. To explain why some of the questions posed earlier in the passage could not be answered by the findings of the Glomar Challenger

C. To evaluate techniques used by Hsu and Ryan to explore the sea floor

D. To describe the most difficult problems faced by the Glomar Challenger expedition

4. According to paragraph 4, which of the following was responsible for the evaporation of the Mediterranean's waters?

A. The movements of Earth's crust

B. The accumulation of sediment layers

C. Changes in the water level of the Atlantic Ocean

D. Changes in Earth's temperature

5. The word "scores" in the passage is closest in meaning to

A. members B. large numbers C. populations D. different types

6. According to paragraph 4, what caused most invertebrate species in the Mediterranean to become extinct?

A. The evaporation of chemicals necessary for their survival

B. Crustal movements that connected the Mediterranean to the saltier Atlantic

C. The migration of new species through the narrow straits

D. Their inability to tolerate the increasing salt content of the Mediterranean

7. Which of the sentences below best expresses the essential information in the highlighted sentence in paragraph 4? Incorrect choices change the meaning in important ways or leave out essential information.

A. The Strait of Gibraltar reopened when the Mediterranean and the Atlantic became connected and the cascades of water from one sea to the other caused crustal adjustments and faulting.

B. The Mediterranean was dramatically refilled by water from the Atlantic when crustal adjustments and faulting opened the Strait of Gibraltar, the place where the two seas are joined.

C. The cascades of water from the Atlantic to the Mediterranean were not as spectacular as the crustal adjustments and faulting that occurred when the Strait of Gibraltar was connected to those seas.

D. As a result of crustal adjustments and faulting and the creation of the Strait of Gibraltar, the Atlantic and Mediterranean were connected and became a single sea with spectacular cascades of water between them.

8. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the **one** answer choice that does not express the most important ideas in the passage. Three sentences belong in the summary because they express ideas that are presented in the passage. You can either write the letter of your answer choice or you can copy the sentence.

An expedition to the Mediterranean answered some long-standing questions about the ocean's history.

Answer Choices

A. The Glomar Challenger expedition investigated changes in invertebrate fauna and some unusual geologic features.

B. Samples recovered from the expedition revealed important differences in chemical composition and fossil distribution among the sediment layers.

C. Evidence collected by the Glomar Challenger supports geologists' beliefs that the Mediterranean had evaporated and become a desert, before it refilled with water.

D. Mediterranean salt domes formed after crustal movements opened the straits between the Mediterranean and the Atlantic, and the Mediterranean refilled with water.

Reading 3

Directions: **Read the passage very carefully and choose the best answer from the given alternatives and write your answer on the space provided.**

The Rise of Teotihuacán

Paragraph

1. The city of Teotihuacán, which lay about 50 kilometers northeast of modern-day Mexico City, began its growth by 200–100 B.C. At its height, between about A.D. 150 and 700, it probably had a population of more than 125,000 people and covered at least 20 square kilometers. It had over 2,000 apartment complexes, a great market, a large number of industrial workshops, an

administrative center, a number of massive religious edifices, and a regular grid pattern of streets and buildings. Clearly, much planning and central control were involved in the expansion and ordering of this great metropolis. Moreover, the city had economic and perhaps religious contacts with most parts of Mesoamerica (modern Central America and Mexico).

2. How did this tremendous development take place, and why did it happen in the Teotihuacán Valley? Among the main factors are Teotihuacán's geographic location on a natural trade route to the south and east of the Valley of Mexico, the obsidian resources in the Teotihuacán Valley itself, and the valley's potential for extensive irrigation. The exact role of other factors is much more difficult to pinpoint—for instance, Teotihuacán's religious significance as a shrine, the historical situation in and around the Valley of Mexico toward the end of the first millennium B.C., the ingenuity and foresightedness of Teotihuacán's elite, and, finally, the impact of natural disasters, such as the volcanic eruptions of the late first millennium B.C.

3.This last factor is at least circumstantially implicated in Teotihuacán's rise. Prior to 200 B.C., a number of relatively small centers coexisted in and near the Valley of Mexico. Around this time, the largest of these centers, Cuicuilco, was seriously affected by a volcanic eruption, with much of its agricultural land covered by lava. With Cuicuilco eliminated as a potential rival, any one of a number of relatively modest towns might have emerged as a leading economic and political power in Central Mexico. The archaeological evidence clearly indicates, though, that Teotihuacán was the center that did arise as the predominant force in the area by the first century A.D.

4. It seems likely that Teotihuacán's natural resources—along with the city elite's ability to recognize their potential—gave the city a competitive edge over its neighbors. The valley, like many other places in Mexican and Guatemalan highlands, was rich in obsidian. The hard volcanic stone was a resource that had been in great demand for many years, at least since the rise of the Olmecs (a people who flourished between 1200 and 400 B.C.), and it apparently had a secure market. Moreover, recent research on obsidian tools found at Olmec sites has shown that some of the obsidian obtained by the Olmecs originated near Teotihuacán. Teotihuacán obsidian must have been recognized as a valuable commodity for many centuries before the great city arose.

5. Long-distance trade in obsidian probably gave the elite residents of Teotihuacán access to a wide variety of exotic goods, as well as a relatively prosperous life. Such success may have attracted immigrants to Teotihuacán. In addition, Teotihuacán's elite may have consciously attempted to attract new inhabitants. It is also probable that as early as 200 B.C. Teotihuacán may have achieved some religious significance and its shrine (or shrines) may have served as an additional population magnet. Finally, the growing population was probably fed by increasing the number and size of irrigated fields.

6. The picture of Teotihuacán that emerges is a classic picture of positive feedback among obsidian mining and working, trade, population growth, irrigation, and religious tourism. The thriving obsidian operation, for example, would necessitate more miners, additional manufacturers of obsidian tools, and additional traders to carry the goods to new markets. All this led to increased wealth, which in turn would attract more immigrants to Teotihuacán. The growing power of the elite, who controlled the economy, would give them the means to physically coerce people to move to Teotihuacán and serve as additions to the labor force. More irrigation works would have to be built to feed the growing population, and this resulted in more power and wealth for the elite.

Directions: Answer the questions.

1. In paragraph 1, each of the following is mentioned as a feature of the city of Teotihuacán between A.D. 150 and 700 EXCEPT

A. regularly arranged streets B. several administrative centers spread across the city

C. many manufacturing workshops D. apartment complexes

2. The word "**ingenuity"** in paragraph 2 is closest in meaning to

A. ambition B. sincerity C. faith D. cleverness

3. Which of the following is NOT mentioned in paragraph 2 as a main factor in the development of Teotihuacán?

A. The presence of obsidian in the Teotihuacán Valley

B. The potential for extensive irrigation of Teotihuacán Valley lands

C. A long period of volcanic inactivity in the Teotihuacán Valley

D. Teotihuacán's location on a natural trade route

4. What can be inferred from paragraph 3 about Cuicuilco prior to 200 B.C.?

A. It was a fairly small city until that date.

B. Its economy relied heavily on agriculture..

C. It emerged rapidly as an economical and political center.

D. It was located outside the Valley of Mexico

5. Which of the following allowed Teotihuacán to have "a competitive edge over its neighbors"?

A. A well-exploited and readily available commodity

B. The presence of a highly stable elite class

C. Knowledge derived directly from the Olmecs about the art of tool making

D. Scarce natural resources in nearby areas such as those located in what are now the

6. According to paragraph 4, what has recent research on obsidian tools found at Olmec sites shown?

A. Obsidian's value was understood only when Teotihuacán became an important city.

B. The residents of Teotihuacán were sophisticated toolmakers.

C. The residents of Teotihuacán traded obsidian with the Olmecs as early as 400 B.C.

D. Some of the obsidian used by the Olmecs came from the area around Teotihuacán.

7. In paragraph 6, the author discusses “The thriving obsidian operation” in order to

A. explain why manufacturing was the main industry of Teotihuacán

B. give an example of an industry that took very little time to develop in Teotihuacán

C. illustrate how several factors influenced each other to make Teotihuacán a powerful and wealthy city

D. explain how a successful industry can be a source of wealth and a source of conflict at the same time

8. Directions: An introductory sentence for a brief summary of the passage is provided below. Complete the summary by selecting the **one** answer choice that does not express the most important ideas in the passage. Three sentences belong in the summary because they express ideas that are presented in the passage. You can either write the letter of your answer choice or you can copy the sentence.

Teotihuacán was a highly developed city in Mesoamerica that reached its peak between about A.D. **150 and 700.**

Answer Choices

A. The number and sophistication of the architectural, administrative, commercial, and religious features of Teotihuacán indicate the existence of centralized planning and control.

B. Several factors may account for Teotihuacán’s extraordinary development, including its location, rich natural resources, irrigation potential, intelligent elite, and the misfortune of rival communities.

C. As a result of its large number of religious shrines, by the first century A.D., Teotihuacán became the most influential religious center in all of Mesoamerica.

D. In many important areas, from the obsidian industry to religious tourism, Teotihuacán’s success and prosperity typified the classic positive feedback cycle.

Appendix C: Interview for Main study

ADDIS ABABA UNIVERSITY

COLLEGE OF HUMANITIES, LANGUAGE STUDIES, JOURNALISM AND COMMUNICATION

DEPARTMENT OF FOREIGN LANGUAGE AND LITERATURE

(Ph.D. Program)

The objective of this study is to examine the effects of reading strategies for increasing the Reading Comprehension Level of AAU freshman students. This study is a part of the requirement for obtaining a doctoral degree in ELT for the Addis Ababa University, in which I am a student.

As a participant in this study, you will be asked to share your perception about the effects of reading strategies on you and your friends' reading comprehension skills. Besides, you will be asked to share your experience about the effective reading comprehension strategies that you have used with the students. You will be asked to participate in approximately 30-40-minute interview.

Time of Interview: _____ Date of Interview: _____

Location: _____ Interviewer: _____

Interviewee: _____

Participant Background Information:

Gender: M _____ F_____

- How does your training on reading strategies assist you to comprehend the reading comprehension? Can you explain it with examples?
- Based on your training, which sub reading strategy is more helpful to you so as to understand English texts in a better way? Why?
- Do you think cognitive reading strategy training really improve the learners' academic performance? If yes, how?
- **How has the training on reading strategies impacted your reading self-efficacy and motivation?**

- Is there anything you would like to say about the problems you face in comprehending the English passage and reading strategies?
- What do you recommend for the students who fail to comprehend the reading text written in English? Why?
    - ✓ What problems do you face in applying the reading strategies?
    - ✓ What is your view about applying reading strategies?

Thank you for participating in this interview. I appreciate your willingness to participate in this study. All the information you shared is very valuable and will be treated with complete confidentiality. Do you have any question?

Appendix D:The Motivation for Reading Questionnaire for main study

ID_____ Section _____ Time allowed: 30 minutes

The Motivation for Reading Questionnaire (MRQ - R)

The objective of this study is to examine the effects of reading strategies for increasing the Reading Comprehension Level of AAU freshman students. This study is a part of the requirement for obtaining a doctoral degree in ELT for the Addis Ababa University, in which I am a student. **Instruction I**: Below are questionnaire items for reading motivation. Please read each of the items carefully and then put a tick under the choice properly.

Dimensions of RMQ		Strongly Agree	Agree	Not Decided	Disagree	Strongly Disagree
R.CH	I like hard, challenging books					
	If the project is interesting, I can read difficult Material					
	I like it when the questions in books make me Think					
	I usually learn difficult things by reading					
	If a book is interesting I don't care how hard it is to read					
RCU	If the teacher discusses something interesting I might read more about it					
	I have favorite subjects that I like to read About					
	I read to learn new information about topics that interest me					

	I read about my hobbies to learn more about them					
	I like to read about new things					
	I enjoy reading books about people in different countries					
AE	I read stories about fantasy and make believe					
	I like mysteries					
	I make pictures in my mind when I read					
	I feel like I make friends with people in good Books					
	I read a lot of adventure stories					
	I enjoy a long, involved story or fiction book					
IR	It is very important to me to be a good reader					
	In comparison to other activities I do, it is very important to me to be a good reader					
RR	I like having the teacher say I read well					
	My friends sometimes tell me I am a good Reader					
	I like to get compliments for my reading					
	I am happy when someone recognizes my reading					
	My parents often tell me what a good job I am doing in reading					

RFG	Grades are a good way to see how well you are doing in reading					
	I look forward to finding out my reading grade					
	I read to improve my grades					
	My parents ask me about my reading grade					
SO	I visit the library often with my family					
	I often read to my brother or my sister					
	My friends and I like to trade things to read					
	I sometimes read to my parents					
	I talk to my friends about what I am reading					
	I like to help my friends with their schoolwork in reading					
	I like to tell my family about what I am reading					
RC	I try to get more answers right than my Friends					
	I like being the best at reading					
	I like to finish my reading before other Students					
	I like being the only one who knows an answer in something we read					
	It is important for me to see my name on a list of good readers					

	I am willing to work hard to read better than my friends					
CO	I do as little schoolwork as possible in reading					
	I read because I have to					
	I always do my reading work exactly as the teacher wants it					
	Finishing every reading assignment is very important to me					
	I always try to finish my reading on time					
RWA	I don't like vocabulary questions					
	Complicated stories are no fun to read					
	I don't like reading something when the words are too difficult					
	I don't like it when there are too many people in the story					

Appendix E: Reading self-efficacy questionnaire for main Study

ID_____ Section _____ Time allowed: 30 minutes

Please use the following scale (1-6) to answer the questions. Choose the number that best describes how sure you are that you can perform each of the English reading tasks below. All of the items refer to reading in English.

1	2	3	4	5	6
I cannot do it at all.	I probably cannot do it.	Maybe I cannot do it.	Maybe I can do it.	I probably can do it.	I can definitely do it.

	1	2	3	4	5	6
	I cannot do it at all.	I probably cannot do it.	Maybe I cannot do it	Maybe I can do it.	I probably can do it.	I can definitely do it.
1. Read and understand the specific details of a students' book written in English	1	2	3	4	5	6
2. Read and understand the main ideas of a 20-page book written for English-speaking teenagers.	1	2	3	4	5	6
3. Read and understand the directions (written in English) on how to use a new electronic dictionary.	1	2	3	4	5	6
4. Read and understand the lyrics or verses of a song written in English.	1	2	3	4	5	6
5 Read and understand the specific details of a from an American pen-pal(a Person with whom you exchange mail) discussing	1	2	3	4	5	6

what he did over his summer vacation.						
6. Read and understand the English subtitles in an American movie.	1	2	3	4	5	6
7. Read and understand the specific details of a one-page magazine article written in English and related to one of my hobbies (i.e., fashion, sports, music, movies)	1	2	3	4	5	6
8. Read and understand the main ideas of a front-page article in a newspaper published in an English-speaking country.	1	2	3	4	5	6
9. Read and understand the items on a menu written in English at a fast-food Restaurant	1	2	3	4	5	‹6
. 10. Read and understand the specific details of a party invitation written in English	1	2	3	4	5	6

11. Read and understand the specific details of a business letter in English.	1	2	3	4	5	6
12. Read and understand the specific details of an article in a newspaper published in an English-speaking country that is written about a topic related to your major (economics, law …) at university.	1	2	3	4	5	6
13. Read and understand the main ideas of an article in a newspaper published in an English-speaking country that is written about a topic related to your major (economics, law …) at university.	1	2	3	4	5	6
. 14. Read and understand the contents and times of specific TV programs in a TV guide written in English.	1	2	3	4	5	6

Appendix F: Observation Checklist for main study

University: _____ Instructor:_____

Observer:_____ Number of Students:_____ Date of Observation: _____

Time teacher spent on the reading instruction: ____min. Starting Time of Observation:_____ Ending Time of Observation:_____ year: _____Section_____

No	Checklist	Remark				
		O1	O2	O3	04	05
1.	The teacher Sets clear instructional purposes for reading comprehension					
2.	The teacher authentic materials other than the textbook					
3.	The teacher elicit students 'prior knowledge to employ their background knowledge when reading text					
4.	The teacher teaches and models reading strategies and provides adequate time for students to practice the strategies through guided practice and independent work					
5.	The teacher promotes social interaction and ―scaffolding" as a means to develop students' complex skills					

6.	The teacher engages students to generate questions of their own about what they read					
7.	The teacher prompts students to answer questions.					
8.	The teacher assesses students 'comprehension by asking various levels of questions					
9.	The teacher explains reading strategies and the rationale for learning them					
10	The teacher helps students purposefully monitor their own comprehension before, during, and after reading.					
11	The teacher tells mechanisms for tackling new words					
12	The teacher raises the students 'awareness of the strategies they are already using and to facilitate opportunities for students to the reading instruction					
13	The teacher guides the students to predict the text and the meanings of new words					
14	The teacher supports the students to preview the heading, visuals and pictures					
15	The teacher teaches and models reading strategies and provides adequate time and opportunities for students to practice the strategies through guided practice and					

	independent work.					
16	The teacher helps the students find the meanings of words					
17	The teacher helps the students practice problem solving mechanisms					
18	The students summarize the text in a few words					
19	The teacher instructs the students to paraphrase the text					
20	The teacher explains range of strategies based on the context					

Appendix G: Interview transcription for Main Study

Interview 1 (R1)

Interviewer: How does your training on reading strategy assist you to comprehend the reading compression? Kindly give me example how the strategies helped you to overcome the problem that you faced in reading**.**

Interviewee (R1):
So thank you. This, the orientation or the strategies that are I learned it by then, helps me to, like, know more of different strategies to how I can, like, make a reading as a habit, how can I use reading as an instrumental development, and how can I there may be some, challenges that that we may see through reading, like there are many assumptions that are given by our centers or others?
But knowing that the strategy is enabling me to be more, like interested in reading and to make what I read more, internalized in science.

Interviewer: Based on your training, which reading strategy is more helpful to comprehend the material?

Interviewee (R1): For me, the two strategies are more, in my opinion, they are useful and more have a better effect on my reading strategy. The first one is problem solving, like, through problem solving, a student or a person will be actively participated and will work and relate, the things that are learned in the theory with the fact that So it will be learning through the experience, learning through work, learning through practice, and it's like have a bigger internalizing capability in one's, in one's mind.
The second one is predicting. I guess, this one will enable people to, like, as a to give their assumptions to the to express what they think, to interrelate their knowledge with the team that they learned. So those two are I think they are the best for me for internalizing everything.

Interviewer: Have you ever taken any training related to reading comprehension strategies? Can you say something about that?

Interviewee (R1): Yes. Of course. I do. So those, they are one of the common trainings that I've taken before and currently. And, they enable me to, like, be more effective on the reading strategies that I have before and to improve to have enhanced my reading capability and to, like, improve the way that I, like, what you call it, that we understand things that are written and to make reading the asset hard.

Interviewer: How has the training on reading strategies impacted your reading self-efficacy and motivation?

Interviewee (R1):I feel more confident now when I read complex texts. Before the training, I would sometimes avoid difficult passages, but now I know which strategies to use to understand them. This makes me want to read more and try harder because I see that I can actually succeed in comprehending the material.

Interviewer: Do you think cognitive reading strategy training really improve student academic performance?

Interviewee (R1): Of course, it do. It has an it has an benefit into improving once, like, all the students' reading capabilities, because, you know, a student is most of our time would be, like, used in the reading the material. So most of the English stuff we study are, like, their written form.

So we will spend much of our time through reading. So making, like, understanding the way we can collect the main ideas from the reading the material. Also, be attentive on the, the things that are reading on. It's very useful. So these kinds of cognitive thing or strategies are useful for one reading.

Interviewer: Is that possible to conclude that reading strategies are useful, even for other subjects other than English?

Interviewee (R1): Of course, we do. It has, like, it have a place that has, like, better, use, and there may be a place, for example Yeah. For the calculation. There may be a calculation, For national science?

Yes. For natural science, it may be not that much Yeah. Better. It has no may it may not have a

better use there, but especially on the social science part currently, we are taking the we are taking most of the courses that are social sciences. So it have a bigger use there.
The social social science, lessons have, like, much they are much more reading factors and much more theoretical parts.

Interviewer: Is there anything you would like to say about the problem you faced in comprehending reading material?

Interviewee (R1): Okay. There may be challenges that I may face daily. Maybe the reading material may not be that much, like, understandable. It may, like, it's a trace it may may not have a straight flow, and, maybe new vocabulary that are challenging to understand. So, probably I will use the different website sources to have a better understanding or, paraphrasing tools to understand the longer fixes, and try to there may be also their challenges on the attention.
Maybe reading too much long text for a long time, maybe a boring activity. So I will try to make them more interesting or attentive. I will I will try to follow a more attentive way of reading.

Interviewer: What will you do if you face difficult passage in the exam?

Interviewee (R1):

If at at those kinds of situations, I will first I will try to see the questions, what the questions say, what the questions are, related to which paragraph are they are talking about. So first, I will review the question, and, then I will go to the passage and see, if the answers are possible to gain or, like, analyzing that text tagging.

Interviewer: What do you recommend for the students who fail to comprehend the passage?

Interviewee (R1):

First of all, they should be calm if they are stressed. It may not be possible to do the even the easiest question, they can probably do other signs. So first, they should be calm and try to analyze try to take it as easy, like, test that as it'll be for our senses and try to analyze it simply and do, first, review the question and do then by reviewing it at the store at a given passage.

Interviewer: What problem do you see in applying reading strategy?

Interviewee (R1): Maybe the consistency. We are not consistent in applying those reading strategies due to different cases. Maybe our clients, especially that if we procrastinate, like, different times or usually, it may be difficult to update those reading the passages because some of them may take so much time, or some of them, may not be that much, useful for applying in certain reading passage or certain reading the materials. So I think consistency is a challenging part for me in applying this reading strategy.

Interviewer: What is your view about reading strategies in general?

Interviewee (R1): My view about the reading strategies, they are one of the important thing is for one's own to develop the reading habits. So, we give many information, many things through the reading. So, they are very useful strategies or ways to develop and especially for students, they are very useful, things that we should have.

Interviewer: Do you have any additional points to add?

Interviewee (R1): The thing that I want to add is, like, every student, not only student, every superstar devoted should know these reading strategies, develop them, analyze them, and internalize them in order to be successful in the teams that we wanted to be in the future. So this is what I have for now.

Interview 2 (R2)

Interviewer: How does your training on reading strategies assist you to comprehend the reading comprehension? Can you explain it with example?

Interviewee (R2): In order to explain about the reading strategies, in the training, we give different issues how we can improve our reading skills. The first thing that we get from it is using different strategies like visualizing, problem solving, predicting, and as much as possible we should have to try to use those strategies in order to improve our reading skills. And I think after that time, after the time that we take the training, we can improve our reading skills in different ways, for example, if someone reads his example on different situations that he invited,

can use these strategies in order to understand the passage and also reflect his ideas in short period of time.

Interviewer: What strategies did you learn from the training?

Interviewee (R2): The first strategy that we can use is previewing. I think that this strategy helps students to find out what the passage will talk about before they actually read about the passage. In this strategy, learners can review the titles, section heading, and captions and can understand the passage and they can express their feelings or their thoughts about that passage.

And the second strategy that can help us is skimming or scanning. Skimming is reading the text quickly in order to find years or things that can catch with our eyes immediately. It helps us to to use our time in exam times.

And also scanning, it is a quick search for particular information, for example, dates, name, places, and the definition of main points. And the other one is paraphrasing and summarizing. That summarizing involves the ability of readers to summarize or conclude the whole idea of that passage and it helps them to reflect their idea in a short way for listeners or they can get also in a short period of time about the meaning or the message of that passage.

Paraphrasing means that reciting the information in the ideas by using our words without using or changing some of the ideas with our own words. The other one is predicting. It is similar to guessing, but it is a wise guess about the passage in order to make informed predictions and it helps us to know about the passage before deeply.

Interviewer: Based on your training, which reading strategy is more helpful to you?

Interviewee (R2): Okay, I think the scanning or skimming helps more for students or readers because that in order to use our time effectively in exam times or any time, they help us to use our time effectively in order to find messages or information about some passage.

Interviewer: Do you think cognitive reading strategy training improves learners' academic performance? How?

Interviewee (R2):I agree with this idea because most of the time, the main thing about is time on their exam. So having these strategies or taking this training helps them to use their time effectively and efficiently in order to get good scores in their subjects or in their courses.

So improving these strategies will help them in a better way.

If you have information about these strategies, for example, if someone knows about scanning or skimming, before reading the whole passage with him, he can point out the question, he can find the information or message that asked about one question.

For example, if someone wants to find when that event occurs, he can scan the passage and guess the year. So in this way, it can reduce his time.

Interviewer: What problems do you face in comprehending English passages? How did you solve them?

Interviewee (R2): The problem that I face in different situations is that understanding the passage, which is sometimes I get strong passage or passage that takes my time to understand more or to answer effectively. So in that way, I think it is for me difficult.

In order to solve such kinds of problem, I use reading repeatedly and in order to get the message, I use reading them repeatedly.

Interviewer: Have you taken such training before?

Interviewee (R2):I didn't take any training. Maybe I read books in my home. For example, in elementary classes, our lecturers or teachers give our homework about reading. So in order to answer those questions, I read them and answer.

Interviewer: How has the training on reading strategies impacted your reading self-efficacy and motivation?

Interviewee (R2): The training motivated me to be more engaged in reading. I feel capable of identifying key points quickly and understanding passages better, which reduces my anxiety

when facing exams. Knowing these strategies encourages me to take on more challenging texts because I trust that I can handle them.

Interviewer: What do you recommend for students who fail to comprehend reading texts?

Interviewee (R2):I recommend for students that in order to improve their reading skills, they should have to read different books that talk about different issues and also read about the passage and try to reflect or summarize by their own words in front of other people. And the first thing that they should have to plan about the time or times and where and when they can read books.

Interviewer: What problems do you face in applying reading strategies?

Interviewee (R2): Maybe I didn't, after taking this training, I didn't apply those strategies in order to read or I didn't give time for reading different books.

Interviewer: What is your view about applying reading strategies in general?

Interviewee (R2): In my point of view, applying these reading strategies is more beneficial or it's more important for students and it will help improve their reading skills.

Interviewer: Do you have any additional comments?

Interviewee (R2):I would say thank you. I didn't have any questions.

Interview 3

Interviewer: How does your training on reading strategy assist you to comprehend the reading material effectively?

Interviewee (R3): Okay. So the training gave me so many information of reading. Because it covers very broad concepts like how should we study or how should we read about things or strategies that we have to use on different purposes? For example, how should we read on things like, for example, we are students. We may read for exams, like the study materials, and also we

may read novels, either for entertainment or for improving our language. So the training gave me, the effective studying or reading grade on those modules.

Interviewer: Have you ever taken any training which is related to reading strategies so far?

Interviewee (R3):I haven't. Maybe, maybe only when I was in high school or primary school, our textbook invites us to to study I mean, to read, how to read or when we are using paragraphs. I either we have to use skimming, scanning, or service.

Interviewer: So how could you solve the problem that you face in understanding the material regardless of reading strategies?

Interviewee (R3): Actually, I have the if I have it on reading because, I'm a student. I live with reading. So, through this, like, I may I may study four exams. I may have to memorize so many paragraphs and so many so many things for my exam. So I have missed, every everything else.

Interviewer: Based on your training, which sub reading strategy is more helpful to you so as to understand English text in a better way and why?

Interviewee (R3): From the training I took, the one I like, from the training me, personally, I]don't treat novice frequently. So this training can give me an insight if we I if I visualize the the things or if I create a picture on what I'm doing, I may hear it and I may I may get another more informations more than improving my improving my language or improving my or getting any certainty from Novi.

Interviewer: Do you think cognitive learning strategy training really improve the students' or learners' academic performance? If you say yes, how?

Interviewee (R3): Yes. It does. Because, we students read so many things. So we have to know how to read and how to grab information from each kind of material. So, we don't have to study novels as a as a, like, as an academic thing. And also, we don't we don't have to read voice pressure. So, we have to know the reading strategies. We have to know how to read our materials and how to make them, useful.

Interviewer: Is there anything you would like to say about the problem you faced in comprehending the English passage?

Interviewee (R3): Yes. Okay. For example, like, I don't like a paragraph question. Go on. I would like because such kind of question okay. Such kind of question, needs memorization, understanding the compression or the paragraph. So we have to memorize, like, it needs something, like, very attentive reading on it. So I feel like maybe memorizing the thing or memorizing the paragraph and understanding and analyzing. It is analyzing. Not only understanding, analyzing to assess that compression question.

Interviewer: How has the training on reading strategies impacted your reading self-efficacy and motivation?

Interviewee (R3): I think it helps me to some extent. After the training, I feel more in control of my reading. I know how to visualize, predict, or scan texts, and this makes me more confident and willing to read regularly, even when the material is dense.

Interviewer: What do you recommend for the students who fail to comprehend the reading material effectively?

Interviewee (R3): Taking this training. Taking site training? Yeah. Reading training. Would you elaborate it? Okay. As I said before, reading strategies are really important. So, students or people that are, not good at comprehending these questions, let me should know more about reading strategies, how to read. They have to know how to read and how to comprehend, how to understand, and how to, answer the questions that are asked from the paragraph.

Interviewer: Can we say such reading strategy are helpful even for other subjects other than English?

Interviewee (R3): Yes, sir. For example, I'm now second, I'm freshman, I'm learning, freshman first year, second semester. In the previous semester, which is the first semester, we took history. So we may use different kind of study reading studies. It's like, for example, if we want to memorize something or maybe a name of victory or the name of some kind of cutting, We may

use scanning, survey, different kind of study arranging strategies. So, yes, very important for taking this training other than.

Interviewer: What problem do you face in applying reading strategies?

Interviewee (R3): For example, if I if I if I'm reading just, just only for memorizing, I may use kind or to memorize something some kind of thing. I may use scanning, but I have to memorize and I have to read it again and again and again to make it memorized. So there's additional effects that are that's expected from me other than reading using this reading strategy.

Interviewer: What's your view about applying reading strategies?

Interviewee (R3): Yes. Of course. But, like, we all have a purpose of a purpose to read that link, to read that material. So based on our purpose, we have to use this the reading strategies, to understand or to grab the information we need.

Interview 4 (R4)

Interviewer: How does your training on reading strategies assist you to comprehend the reading comprehension? Can you explain it with examples?

Interviewee (R4): Yeah. Well, thank you for having me. Yeah. And I'll start by saying, the training significantly helped me in complementing the reading comprehension by first allowing me to integrate my background knowledge through the method method of activating background knowledge and through helping me unconsciously use, previewing, and predicting methods.

Interviewer: Can you explain how these strategies help you in comprehending the passage?

Interviewee (R4): Active background knowledge helps me by forming a framework in which I can build upon. And previewing helps me map out where I'm going and what I'm going to read and better understanding the passages. Predicting or guessing helps me understand the words that I need and the context in which it is used.

Interviewer: Which reading strategy is more helpful to you?

Interviewee (R4):I would say activating background knowledge would be, the most important or crucial method that I use since I use the knowledge that I have from previous experiences.

Interviewer: Have you ever taken any training in relation to reading strategies so far?

Interviewee (R4): Not until now. So how could you solve the problems, or how could you comprehend and provide answer for comprehension questions? You should have self technique so you are not aware of what kind of strategies you are using. This, training did help me use these methods, better, read and understand literature.

Interview Item: How has the training on reading strategies impacted your reading self-efficacy and motivation?

Interviewee (R4): Using strategies like activating prior knowledge and previewing has boosted my self-belief. I feel I can approach any passage with a plan and understand it better. This has increased my motivation because I know reading isn't just hard work—it's something I can manage effectively.

Interviewer: Do you think cognitive reading strategy training really improve learners' academic performance? If you say yes, how?

Interviewee (R4):I would say they are very essential and should be integrated into everybody's learning experience. These methods help through integrating their past experiences and making reading easier through conscious and unconscious methods and finding out what they're reading.

Interviewer: Have you ever encountered problems in comprehending the passage?

Interviewee (R4): Yes. The problems I encountered through cooperating English passages is sometimes when I read, I do tend to phase out or break the flow sometimes because of not understanding a word or misunderstanding the paragraph.

Interviewer: How could you solve such problems?

Interviewee (R4):I would use inferencing, which means I can understand the words, by better understanding the context and applying it through the passage.

Interviewer: What do you recommend for students who fail to comprehend reading text?

Interviewee (R4): Previewing is one of the most important methods to better help them understand what they are reading, and that's because they will create a mental map of where they are going. And using activating background knowledge could help them using the frameworks they already have.

Interviewer: What problem do you face in applying reading strategies?

Interviewee (R4): The problem that I have while I apply reading strategies is sometimes I don't consistently apply those methods because I break out of the flow or because I don't understand what is inferred in some progress.

Interviewer: What is your view about applying reading strategies in general?

Interviewee (R4): They are crucial. They make, they do help a lot. First, I'd say, it empowers students and empowers them through self belief. And once they have these methods, the these reading strategies, once they incorporate them unconsciously or consistently use them, it helps them go through the passage and understand it much better.

Interview 5 (R5)

Interviewer: How does your training on reading strategies assist you?

Interviewee (R5): The reading strategy that I trained for is very useful. I have I have used most of them in many times from lower grade up to now, but knowing those strategies has to me really because, I know detail like which one to use for which one subject and which one kind of or is in a specific kind of or in novels or fiction. So I know which one to use and which one preferably which works for me.

Interviewer: Have you ever taken any training which is related to such training?

Interviewee (R5): Even if it's not for one training, but, our teachers have, in multiple times, given us about it, talked about it. So I can say even if it's not for one, I have taken.

Interviewer: How has the training on reading strategies impacted your reading self-efficacy and motivation?

Interviewee (R5):

I feel empowered now when I read, especially when I use visualizing. It’s satisfying to see that I can summarize and understand material clearly. This makes me more interested in reading and keeps me motivated to apply strategies to other subjects.

Interviewer: Which reading strategy is more helpful to you?

Interviewee (R5):

Mine would be visualizing because I'm I like to visualizing this. It helps me to remember them, to reflect on them, and so that I can summarize the whole idea. And visualizing really helps me because I can connect the dots between what I read and to to my real life.

Interviewer: Do you think reading strategies improve academic performance?

Interviewee (R5): Yes. I believe so. It helps them to know their scope and to relay.

Interviewer: Can these strategies be applied to other subjects?

Interviewee (R5): Yes. I think those strategies will help for other subjects including English. For example, we can predict things, and many strategies will be helpful.

Interviewer: What challenges do you face in reading comprehension?

Interviewee (R5):I think in some subjects, they add some irrelevant things, and then I sometimes I waste my time on those things just thinking that it will be helpful.

Interviewer: What do you recommend for students who fail to comprehend reading material?

Interviewee (R5):I think, you can use something that are that really works for you, not for everyone. Know which strategy will help for you.

Interviewer: What problems do you face in applying reading strategies?

Interviewee (R5): Maybe not knowing those strategies or not experimenting which works best.

Interviewer: What is your view about reading strategies?

Interviewee (R5):I have a positive view. It helped me in the past and will help in the future.

Interview 6 (R6)

Interviewer: How does your training on reading strategies assist you?

Interviewee (R6):I think the training has been helpful because, it has given me the reading strategies very clearly, and I have more understanding about them.

Interviewer: Have you taken any training before?

Interviewee (R6): The training made me feel more competent in reading. But it doesn't mean that I'm not as worried about difficult passages anymore. Knowing how to paraphrase, summarize, or visualize encourages me to read more, but I'm still needs to further boost my skills to feel motivated

Interviewee (R6): No. My experience comes from reading and exams.

Interviewer: Which strategy is most helpful?

Interviewee (R6): Visualizing and activating background knowledge are the most helpful for me.

Interviewer: Do reading strategies improve academic performance?

Interviewee (R6): Yes, because students may not know these strategies clearly before, and now they understand how to use them.

Interviewer: Can they be applied to other subjects?

Interviewee (R6): Yes, because most subjects depend on reading comprehension.

Interviewer: What challenges do you face?

Interviewee (R6): Complex language and time management are challenges.

Interviewer: What do you recommend?

Interviewee (R6): Reading more helps identify weaknesses.

Interviewer: What problems do you face in applying strategies?

Interviewee (R6): Paraphrasing and summarizing are difficult when language is complex.

Interviewer: What is your view about reading strategies?

Interviewee (R6): They are very helpful and make comprehension easier.

Interview 7

Interviewer: To begin with question number one, how does your training on reading strategies assist you to comprehend the reading comprehension? Can you explain it with example?

Interviewee (R7):Yeah. Again, the question?

Have you taken the training on reading strategies so far? How does the training support you to comprehend the reading material?

Okay. There are different types of reading materials. Reading strategies.

Yes. So, subject matters on this kind of things you use different kinds of strategies.

Interviewer: Such as?
Interviewee (R7):Visualizing. The platform is visualizing. After you realize, the first tip is

creating image of what you're reading in, like problem solver, trying to solve the problem after you create what you want to the image, what you wanted, then skimming the end, the purpose of your read, for how purpose you are reading. So they are activating your Yeah. Background knowledge.

So by merging with types of techniques, you can already.

Interviewer: Based on your training, which reading strategy is more helpful for you to comprehend the material?

Interviewee (R7):Problem solving for me.

Interviewer: Could you please just divide why you selected it?

Interviewee (R7):Okay. So my reading, it requests, different kinds of method. But for exams, especially, you have to try different kinds of problem. Just to keep what you read in your mind.

You have to do different kinds of questions. So, it's better for you to just solve problems. By solving problems, you gain knowledge, better understanding of what you are reading for.

Interviewer: Do you think cognitive reading strategy training really improves learners' academic performance? If you say yes, how?

Interviewee (R7):Yes. Cogntive reading? I would say yes.

Interviewer: But how could it support individuals to comprehend effectively?
Interviewee (R7):
Yeah. Yeah. You did, but you don't know in the past new for you. So, your view will be broad, and your understanding will be deep. So I think it will help.

Interviewer: Have you ever taken such training?

Interviewee (R7):
No.

Interviewer: How has the training on reading strategies impacted your reading self-efficacy and motivation?

Interviewee (R7): I noticed some difference in my confidence after the training. When I tackle a long or complex passage, I know I have strategies to use, like problem-solving or skimming. This knowledge motivates me to read more regularly, and I feel like I can actually retain and apply what I read.

Interviewer: So how did you solve such problems when you face difficulties with a new reading passage?

Interviewee (R7):First, I'll try to look up on Google and search for what the different videos, YouTube videos, etcetera. So, I want to get a clue first.

Interviewer: What will you do if it happens in the form of the exam?

Interviewee (R7):Oh, in exam context class context strategy, I will try to identify the word context strategy as the passage.

Interviewer: Is there anything you would like to say about the problem you faced in comprehending the material during the exam, which includes a lengthy passage?

Interviewee (R7):Not much.

Interviewer: What do you recommend for students who fail to comprehend the material?

Interviewee (R7):Read the passage beginning again until you understand, the idea of the main concept of the passage. Then, you can do the patient.

Interviewer: What problems did you face in applying reading strategies?

Interviewee (R7):Problem. There is ask me, I personally read fasting if the party is young, but it's at the middle, I get tired in below some some part of the passage. I don't give it, like, full concentration. So that may… So lack of concentration? Lack of after the passage is long, I lack concentration.

I say going because that may cause the problem a little. There's problem other than that. Thank you.

Interviewer: What is your view about reading strategies? Should we encourage friends or any individual to apply reading strategies?

Interviewee (R7):Yes. Why? Okay. So, the reading strategies have different purposes. So on skimming for skimming is that, you just want the what you want to take, what you want.

So you can go deep. Yeah. You don't need to go deep. So, the purpose matters. You can release strategies with the part one.

Interviewer: Any closing remarks?

Interviewee (R7):Thank you brother, for attending this conversation. Your response will be kept confidentially. The purpose of this session is just to collect the data and to examine to what extent the winning strategy will have impact on student reading and patient performance.

Interviewer: How does your training on reading strategies assist you?
Interviewee (R8): The training really helped me understand different ways to approach reading. I learned how to focus on the main ideas, how to predict what will come next, and how to visualize the material. It makes reading less overwhelming, and I feel more confident when I approach complex texts.

Interviewer: Can you give an example of how you applied these strategies in your studies?
Interviewee (R8): Sure. For example, in my class, I had a long chapter about colonial history. By previewing the headings and subheadings, I could guess what each section was about. Then, I skimmed for key dates and events, and finally, I visualized the events as a story in my mind. This helped me remember the sequence of events clearly when I studied for the exam.

Interviewer: Have you ever taken any training related to reading strategies before?
Interviewee (R8): No formal training before this, but I’ve tried reading tips from books and online resources. This training was more structured and practical.

Interviewer: How has the training on reading strategies impacted your reading self-efficacy and motivation?
Interviewee (R8): It has boosted my confidence a lot. I feel like I can tackle any reading passage now. I'm also more motivated to read because I know I have strategies that will help me understand and remember what I read. Before, I would often give up on long or difficult passages, but now I approach them calmly and systematically.

Interviewer: Have you noticed any changes in your motivation to read outside of class?
Interviewee (R8): Yes, definitely. I now enjoy reading articles online or books related to my major. I'm not just reading to complete an assignment; I read because I want to understand and connect ideas. Using strategies like predicting and summarizing makes reading interesting and interactive.

Interviewer: Which reading strategy is most helpful to you?
Interviewee (R8): Skimming and scanning are the most helpful for me because they allow me to identify important points quickly. But I also like visualizing because it makes the material stick in my mind.

Interviewer: Do you think reading strategies improve academic performance?
Interviewee (R8): Definitely. Using these strategies helps me manage my time better and understand questions more accurately, which I think will reflect in better grades. I feel more prepared for exams because I know I can extract important information efficiently.

Interviewer: Can these strategies be applied to other subjects?
Interviewee (R8): Yes, especially in social sciences and natural sciences where we have to read a lot of texts. Predicting and summarizing really help in those subjects. I also use them in English literature classes, for example, when I need to analyze a novel or poem.

Interviewer: What challenges do you face in reading comprehension?
Interviewee (R8): Sometimes the language is too complex, or there's too much information. That can make it hard to stay focused. Also, some passages have unfamiliar cultural references, so I have to look things up.

Interviewer: What do you recommend for students who fail to comprehend reading material?
Interviewee (R8): I would tell them to practice using different strategies and to read slowly at first. Using summaries, highlighting main points, or discussing the material with others also helps. Practicing regularly and reflecting on what worked is key.

Interviewer: What problems do you face in applying reading strategies?
Interviewee (R8): Sometimes I forget to use them, especially when I'm stressed or in a rush. Consistency is the hardest part. Also, for very long passages, I find it difficult to apply multiple strategies at once.

Interviewer: What is your view about reading strategies in general?
Interviewee (R8): I think they are essential. They make reading easier, improve understanding, and give students more control over learning. Without them, I would often feel lost or overwhelmed by large texts.

Interviewer: How do you think training could be improved to help students like you?
Interviewee (R8): Maybe including more real-life examples or practice passages would help. If we can see how strategies work in different subjects and contexts, it will make it easier to apply them consistently. Also, group activities where students explain how they used strategies could reinforce learning.

Interviewer: How does your training on reading strategies assist you?
Interviewee (R9): It has been really useful because I now know specific methods to approach different types of reading material. I understand how to connect my prior knowledge, visualize information, and break down passages for better comprehension.

Interviewer: Can you give an example of how you applied these strategies recently?
Interviewee (R9): Yes. In biology, we had a chapter on the nervous system. I first previewed the headings, then predicted what each section might explain. While reading, I visualized the structure of neurons and how signals travel. It made the content much easier to remember, and I could explain it clearly in class.

Interviewer: Have you ever taken any training related to reading strategies before?
Interviewee (R9): Not formally, but I used to read articles and books and tried some tips from friends or online.

Interviewer: How has the training on reading strategies impacted your reading self-efficacy and motivation?
Interviewee (R9): I'm less worried about not understanding, which motivates me to read more. I feel like I can handle bigger tasks without giving up. I also feel proud when I finish a passage and can explain it in my own words, which encourages me to keep learning.

Interviewer: Have you noticed any change in your confidence when taking exams?
Interviewee (R9): Yes, for sure. I approach passages more calmly and know how to find answers efficiently. I don't panic when the text is long or complicated, and that makes me perform better under pressure.

Interviewer: Which reading strategy is most helpful to you?
Interviewee (R9): Problem-solving is very helpful because it forces me to actively engage with the text. Visualizing also helps me remember key points and understand concepts better.

Interviewer: Do you think reading strategies improve academic performance?
Interviewee (R9): Yes, they do. Using strategies like summarizing and predicting helps me perform better in exams and assignments. It's not just reading; it's understanding and remembering. I feel I learn more efficiently now.

Interviewer: Can these strategies be applied to other subjects?
Interviewee (R9): Absolutely. I've applied them in history, biology, and social sciences. They help me identify what's important and make notes faster. Even in math, understanding word problems becomes easier when I read carefully and visualize the situation.

Interviewer: What challenges do you face in reading comprehension?
Interviewee (R9): Long passages and unfamiliar vocabulary sometimes make reading difficult. Also, maintaining focus for a long time is challenging. Sometimes I also struggle when the author's writing is complicated or indirect.

Interviewer: What do you recommend for students who fail to comprehend reading material?
Interviewee (R9): I would suggest they try different strategies, like visualizing, predicting, or summarizing. Practice and patience are key, and it's okay to read multiple times until they understand. Using discussions or teaching others also helps solidify comprehension.

Interviewer: What problems do you face in applying reading strategies?
Interviewee (R9): The main problem is remembering to apply them consistently, especially under time pressure or when the passage seems easy. I also sometimes mix strategies, which can be confusing if I'm not careful.

Interviewer: What is your view about reading strategies in general?
Interviewee (R9): I think they are very important. They give structure to reading and make it easier to learn from any text. I would recommend all students learn them.

Interviewer: How could reading strategy training be improved for students?
Interviewee (R9): More practice with different types of texts would help. Also, having feedback sessions where instructors show what strategies worked or didn't work for different passages could be very useful. Encouraging students to reflect on which strategies fit their personal learning style would be helpful too.

Appendix H: Sample Descriptive statistics of pretest control group

			Statistic	Std. Error
The results of students in the control group	Mean		61.21	1.051
	95% Confidence Interval for Mean	Lower Bound	59.09	
		Upper Bound	63.32	
	5% Trimmed Mean		61.30	
	Median		62.00	
	Variance		53.062	
	Std. Deviation		7.284	
	Minimum		46	
	Maximum		76	
	Range		30	
	Interquartile Range		10	
	Skewness		-.340	.343
	Kurtosis		-.161	.674

Appendix I: Sample Descriptive Statistics of pretest Experimental group

			Statistic	Std. Error
The results of students in experimental pretest group	Mean		60.27	.937
	95% Confidence Interval for Mean	Lower Bound	58.39	
		Upper Bound	62.16	
	5% Trimmed Mean		60.30	
	Median		60.00	
	Variance		42.159	
	Std. Deviation		6.493	
	Minimum		48	
	Maximum		72	
	Range		24	
	Interquartile Range		8	
	Skewness		-.089	.343
	Kurtosis		-.461	.674

Appendix J: Sample data on motivation (Experimental pretest)

Descriptive Statistics

	N	Mean	Std. Deviation
I like hard, challenging books	48	2.52	.743
If the project is interesting, I can read difficult material	48	2.58	.577
I like it when the questions in books make me think	48	2.60	.736
I usually learn difficult things by reading	48	2.56	.897
If a book is interesting I don't care how hard it is to read	48	2.44	.943
Valid N (listwise)	48		

Descriptive Statistics

	N	Mean	Std. Deviation
If the teacher discusses something interesting, I might read more about it	48	3.96	.874
I have favorite subjects that I like to read about	48	4.08	.767
I read to learn new information about topics that interest me	48	4.19	.938
I read about my hobbies to learn more about them	48	3.46	.944
I like to read about new things	48	4.19	.891
I enjoy reading books about people in different countries	48	3.52	.850
Valid N (listwise)	48		

Descriptive Statistics

	N	Mean	Std. Deviation
Grades are a good way to see how well you are doing in reading	48	3.96	.771
I look forward to finding out my reading grade	48	3.85	.743
I read to improve my grades	48	4.17	.808
My parents ask me about my reading grade	48	2.96	.849
Valid N (listwise)	48		

Descriptive Statistics

	N	Mean	Std. Deviation
I try to get more answers right than my friends	48	3.31	.879
I like being the best at reading	48	3.56	.987
I like to finish my reading before other students	48	3.48	.850
I like being the only one who knows an answer in something we read	48	3.15	.945
It is important for me to see my name on a list of good readers	48	2.54	1.091
I am willing to work hard to read better than my friends	48	2.65	.934
Valid N (listwise)	48		

Descriptive Statistics

	N	Mean	Std. Deviation
I don't like vocabulary questions	48	3.96	.651
Complicated stories are no fun to read	48	4.23	.722
I don't like reading something when the words are too difficult	48	4.37	.640
I don't like it when there are too many people in the story	48	4.29	.683
Valid N (listwise)	48		

Descriptive Statistics

	N	Mean	Std. Deviation
I know that I will do well in reading next year	48	3.96	.771
I am a good reader	48	3.48	.799
I learn more from reading than most students in the class	48	3.65	.758
Valid N (listwise)	48	3.69	,776

Descriptive Statistics

	N	Mean	Std. Deviation
It is very important to me to be a good reader	48	3.88	.640
In comparision to other activities I do, it is very important to be a good reader,	48	3.40	.818
Valid N (listwise)	48	3.64	.729

Descriptive Statistics

	N	Mean	Std. Deviation
I do as little schoolwork as possible in reading	48	3.75	.838
I read because I have to	48	3.54	.544
I always do my reading work exactly as the teacher wants it	48	3.46	.771
Finishing every reading assignment is very important to me	48	3.98	.635
I always try to finish my reading on time	48	3.73	.893
Valid N (listwise)	48	3.69	.736

Appendix K: Theoretical Manual on Cognitive Reading Strategies

ADDIS ABABA UNIVERSITY

COLLEGE OF HUMANITIES, LANGUAGE STUDIES, JOURNALISM AND COMMUNICATION

DEPARTMENT OF FOREIGN LANGUAGE AND LITERATURE

Theoretical Manual on Cognitive Reading Strategies

Prepared by: Werku Seyoum

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Addis Ababa, Ethiopia

Introduction

Students who learn a foreign language need more than just knowledge of vocabulary and grammar; they need practical ways to approach learning itself. For this reason, it is very important to encourage students to use a wide range of language learning strategies throughout their learning process. When students are aware that there are different strategies available, they are more likely to take an active role in their learning. Instead of relying only on the teacher, they begin to explore, think, and make decisions about how to learn more effectively. This awareness gives them a sense of control and confidence, which is essential for successful language learning.

Among the different types of language learning strategies, reading strategies play a particularly important role in the classroom. Reading is not simply about recognizing words on a page; it is a complex process that involves thinking, interpreting, and connecting ideas. Many students struggle with reading because they do not know how to approach a text. However, when they are equipped with appropriate reading strategies, they can adjust their reading style depending on their purpose. For example, they may read quickly to get the main idea, read carefully to understand details, or reflect critically to evaluate the message of the text. In this way, reading strategies help students become more flexible and independent readers who can handle different types of texts and tasks.

Scholars have classified language learning strategies in different ways, but their perspectives generally share common ideas. According to research in this area, reading strategies are considered “plans for solving problems encountered in constructing meaning” (Duffy, 1993). This definition highlights that reading is not always straightforward; students often face difficulties such as unfamiliar vocabulary, complex sentence structures, or unclear ideas. Strategies help them deal with these challenges in a purposeful and systematic way. In most of the literature, reading strategies are grouped into three main categories: metacognitive, cognitive, and social/affective strategies (O’Malley & Chamot, 1990). Metacognitive strategies involve planning how to read, monitoring understanding during reading, and evaluating comprehension after reading. Cognitive strategies, on the other hand, involve directly working with the text, such as summarizing, predicting, guessing meanings from context, and making inferences. Social and

affective strategies focus on interaction with others and managing emotions, such as asking questions, discussing with peers, and reducing anxiety.

In this study, the researcher intentionally focused on cognitive reading strategies. This decision was made for several important reasons. First, cognitive strategies include a wide range of practical techniques that students can immediately apply while reading. These strategies are directly connected to how students process and understand texts, making them highly relevant for improving reading comprehension. Second, compared to other types of strategies, cognitive reading strategies have not been sufficiently explored in the specific context of this study. Therefore, focusing on them provides an opportunity to contribute new insights to the field. Finally, cognitive strategies are particularly useful for helping students become active readers, as they require learners to engage deeply with the text rather than passively reading it.

Based on these considerations, a training manual was developed to guide students in learning and applying cognitive reading strategies. The manual includes both theoretical explanations and practical activities, allowing students not only to understand the concept of reading strategies but also to practice using them in real reading situations. It was specifically prepared for first-year students at Addis Ababa University who participated in the study. Since the main objective of the research was to examine the effects of reading strategies on students' reading comprehension performance, it was essential to provide students with structured training on how to use these strategies effectively.

The manual is designed to help students clearly understand what reading strategies are, why they are important, and how they can be used during reading. It emphasizes that reading is an active process that requires thinking, questioning, and problem-solving. By following the guidance provided in the manual, students are expected to develop better reading habits and become more strategic in their approach to texts.

Description of Training Contents

The training manual was designed with the goal of helping students effectively use cognitive reading strategies when engaging with reading comprehension tasks and various academic texts. It recognizes that many students experience difficulty and even frustration when reading in

English, especially when they encounter unfamiliar vocabulary or complex ideas. Therefore, the manual aims to reduce these challenges by providing clear and practical strategies that students can use step by step.

Through the training, students learn how to approach a text before reading, how to interact with it during reading, and how to reflect on it after reading. For example, they are guided to preview the text, make predictions, identify key ideas, summarize information, and check their understanding. These activities help students stay focused and engaged, making the reading process more meaningful and less stressful.

In addition, the manual encourages students to become more confident and independent learners. As they practice using cognitive reading strategies, they begin to realize that they can understand texts more effectively on their own. This not only improves their academic performance in the short term but also prepares them for future learning challenges.

In the long term, the use of cognitive reading strategies contributes to the development of critical thinking and lifelong learning skills. Students learn how to analyze information, question ideas, and make connections between different texts and experiences. These skills are essential not only for academic success but also for personal and professional growth. Therefore, the training manual is not only a tool for improving reading comprehension but also a means of empowering students to become thoughtful, strategic, and independent readers.

Training Contents

This training manual comprises the following basic points:

1. The Definitions of Reading
2. Definition of Reading Comprehension
3. Reading Strategies
4. Schema and Schema Theory
5. Principles of Teaching Reading and Reading comprehension
6. Cognitive Reading strategies
7. Sub- categories of Cognitive Reading Strategies

Training Objectives

Up on the completion of the training, the participants of the study were expected to be able to:

- Understand what reading strategy is
- Understand how reading strategy is used in the EFL classroom
- Learn how to comprehend the reading materials written in English
- Identify the sub categories of cognitive reading strategies
- Use the reading strategies while reading the text
- Assess whether the reading strategy assists them or not

  Time required: 22hrs (2 hrs on each day)

Resources Required

- Laptop
- Projector
- Markers
- Hard White papers

1. Theoretical Part of the Manual

1.1 Definition of Reading

Reading is not simply the act of recognizing written symbols; it is an active and meaningful process. Neil Anderson (1991) describes reading as a dynamic and fluent process in which the reader interacts with the text to construct meaning. Similarly, David Nunan (1991) explains that reading is a dynamic process where elements within the text interact with factors outside the text, particularly the reader's background knowledge.

This means that understanding a text does not depend only on what is written on the page. Instead, it also depends on what the reader already knows, including their experiences, language ability, and prior knowledge. In other words, reading is a two-way process: the text provides information, but the reader actively works to make sense of it. Based on these views, reading can

be understood as an interactive and meaning-making process that requires both the text and the reader's active involvement.

1.2 Definition of Reading Comprehension

Reading comprehension refers to the ability to understand and interpret what is read. Scholars such as Michael Pressley (2000) and Judith Birsh (2011) define it simply as the ability to get meaning from a text. While this definition is clear and straightforward, other scholars provide a more detailed explanation.

For example, Gail Tompkins (2011) explains that reading comprehension is a complex and creative process that involves several underlying skills, including phonology (sound system), syntax (sentence structure), semantics (meaning), and pragmatics (contextual use of language). This shows that comprehension is not automatic; it requires the coordination of multiple language skills.

In this study, the simpler definition is preferred because it clearly highlights the main goal of reading—understanding meaning. However, it is important to remember that achieving comprehension involves a range of mental and linguistic processes working together.

1.3 Reading Strategies

Reading strategies are the tools that readers use to understand texts more effectively. Different scholars define them in slightly different ways, but they all emphasize that strategies are purposeful actions taken by readers.

For instance, Linda Baker and Ann L Brown (1984) describe reading strategies as deliberate cognitive actions that help learners construct and maintain meaning while reading. Similarly, Pressley (2006) explains that reading strategies are conscious behaviors that readers use before, during, and after reading to improve understanding. Neil Anderson (1999) also views them as mental processes used to make sense of a text.

In practical terms, reading strategies include actions such as predicting, summarizing, asking questions, guessing the meaning of unfamiliar words, and monitoring understanding. However, the use of these strategies is not the same for all learners. It is influenced by several factors, including:

- The reader's prior knowledge (Robert Pritchard, 1990)
- The type of text being read (Chih-Cheng Chen, 1999)
- The reader's level of language proficiency (Shelley Kletzien, 1991)

This suggests that effective reading instruction should consider these differences and help students use strategies flexibly.

1.4 Schema and Schema Theory

1.4.1 Schema

Schema (plural: schemata) refers to the mental structures or frameworks that people use to organize knowledge in their minds. These structures help individuals interpret new information based on what they already know. According to H. Douglas Brown (2001), schema represents background knowledge that includes experiences, beliefs, values, and skills.

When students read a text, they do not start from zero. Instead, they bring their prior knowledge to the reading process. This knowledge helps them make predictions, understand ideas, and connect new information with what they already know. Therefore, a text does not carry meaning by itself; meaning is created through the interaction between the text and the reader's schema.

1.4.2 Schema Theory

Schema theory explains how background knowledge supports reading comprehension. According to Brown (2001), schema theory emphasizes the importance of prior knowledge in making meaning from a text. It is closely related to top-down processing, where readers use their existing knowledge to interpret new information.

This theory suggests that comprehension becomes easier when readers can connect the text with their previous experiences. When students lack relevant background knowledge, understanding becomes more difficult. Therefore, activating students' prior knowledge before reading is an important teaching strategy.

1.4.3 Types of Schema

According to Hakan Bilokcuoglu (2011), schema can be categorized into three main types:

- **Linguistic** Schema:
  This refers to the reader's knowledge of language, including vocabulary, grammar, and expressions. Without sufficient linguistic knowledge, understanding a text becomes difficult.

- **Formal Schema:**

- This involves knowledge of how texts are organized. For example, students need to understand different text types such as stories, poems, academic articles, and reports. Knowing how a text is structured helps readers follow and interpret it more easily.

- **Content Schema**:

- This refers to background knowledge about the topic of the text. It includes knowledge about the world, culture, and personal experiences. The more familiar students are with the topic, the easier it is for them to understand the text.

These three types of schema work together during reading. Effective comprehension depends not only on language ability but also on how well students can activate and use their background knowledge.

1.5 Principles of Teaching Reading and Reading Comprehension

1.5.1 Recognizing Learners' Profiles

One of the most important principles in teaching reading is understanding the learners themselves. Students are different in terms of their cultural backgrounds, age, interests, and language proficiency. These differences can significantly affect how they learn and understand texts.

According to Elizabeth Bernhardt (1991, cited in Urquhart & Weir, 1998), second language learners are not a homogeneous group. Their reading comprehension is influenced by various factors such as cultural knowledge, language ability, and prior experiences. Therefore, teachers need to consider these differences and adapt their teaching methods accordingly.

1.5.2 Setting Clear Classroom Objectives

Another important principle is setting clear objectives for reading activities. Reading is always done for a purpose, and students need to understand why they are reading a particular text. When students have a clear purpose, they are more focused and motivated.

For example, students may read to:

- Understand academic texts
- Prepare for exams
- Improve language skills
- Gain information for practical use
- Read for enjoyment

As Tricia Hedge (2000) points out, the purpose of reading helps teachers select appropriate materials and decide on suitable teaching approaches. When objectives are clear, both teaching and learning become more effective and meaningful.

1.5.3 Determining the Role of the Teacher and the Students

In a reading classroom, both teachers and students have important and complementary roles. Learning does not happen effectively if only the teacher is active; students must also take responsibility for their own learning. Therefore, it is essential for both sides to clearly understand what is expected of them.

Teachers play a central role in shaping students' reading experiences. Their attitude, preparation, and teaching approach can strongly influence students' motivation and performance. According to Jeremy Harmer (2001), teachers perform several key roles in reading instruction. As **organizers**, they clearly explain the purpose of reading tasks and give step-by-step instructions so that students know what to do. As **observers**, they monitor students' progress, both individually and in groups, to understand how well they are learning. As **feedback providers**, they help students reflect on their performance after completing tasks, which helps maintain motivation and improve learning.

In addition, teachers act as **prompters**, encouraging students to notice important features of the text and guiding them when they face difficulties. They also act as **controllers**, directing attention to key aspects of the text, clarifying misunderstandings, and helping students understand text structure. As Christine Nuttall (2005) suggests, teachers also help students deal with ambiguities and develop awareness of how texts are organized.

On the other hand, students are not passive receivers of information; they also have active roles to play. Students can act as **code breakers**, where they decode written symbols into meaningful words. They can also function as **text users**, understanding the meaning of a text in order to complete a task. More importantly, they become **text analysts**, where they go beyond the surface meaning to interpret hidden ideas and assumptions within the text.

Furthermore, students are expected to monitor their own comprehension. This means they should ask themselves whether they understand what they are reading and take action when they do not. In this way, both teachers and students share responsibility for creating an effective and meaningful reading environment.

1.5.4 Using Different Reading Strategies and Techniques

Effective reading instruction requires the use of a variety of strategies and techniques. Students do not all read in the same way, and different reading tasks require different approaches. Therefore, teachers need to expose students to multiple strategies so that they can adapt their reading style depending on their goals.

According to H. Douglas Brown (2001), reading activities should be organized into three main stages: **pre-reading, during-reading, and post-reading**. Each stage plays a unique role in supporting comprehension.

Pre-reading stage: Before students begin reading, teachers should help them prepare for the text. This can include introducing the topic, activating prior knowledge, and encouraging students to predict what the text will be about. Activities such as skimming headings, looking at pictures, and discussing the topic help students build expectations and make reading easier.

At this stage, students can ask themselves questions such as:

- What do I already know about this topic?
- What do I want to learn?
- What do I think this text will be about?

These questions help students connect new information with what they already know.

During-reading stage: While reading, students should be actively engaged with the text. They should read carefully, think critically, and interact with the material. This may involve underlining key ideas, taking notes, or asking questions while reading.

Students can pause and reflect by asking:

- Does this make sense?
- How is this idea connected to what I already know?

- What is the writer trying to say?
- What do I still not understand?

These questions help students monitor their comprehension and stay focused.

Post-reading stage: After reading, students should reflect on what they have learned. This stage helps reinforce understanding and deepen comprehension. Activities may include answering comprehension questions, discussing the text, learning new vocabulary, or summarizing the main ideas.

Students can ask:

- What is the main idea of the text?
- What is the most important information?
- How does this relate to what I already know?
- What questions do I still have?

This process helps students consolidate their understanding and think more critically about the text.

1.5.5 Designing Appropriate Tasks and Activities

Another important principle in teaching reading is selecting suitable materials and designing effective tasks. Not all texts are appropriate for all learners, so teachers need to carefully choose materials that match students' needs and abilities.

According to Christine Nuttall (2005), there are three main criteria for selecting reading materials:

1. **Suitability of content:** The text should be interesting, relevant, and appropriate for students' level and learning goals. When students find the content meaningful, they are more motivated to read.

2. **Exploitability:**
   The text should be useful for teaching specific language skills and should allow for a variety of activities. A good text can be used to teach vocabulary, grammar, and comprehension skills together.

3. **Readability:**
   The text should be challenging but not too difficult. If the text is too easy, students will not learn much; if it is too difficult, they may become frustrated and lose interest.

Many teachers prefer to use **authentic materials**, which are texts originally created for native speakers rather than language learners. These materials are often more engaging and reflect real-life language use. However, they can sometimes be too difficult. In such cases, teachers can design tasks that focus on general understanding rather than detailed comprehension, allowing students to use strategies like predicting and skimming.

1.6 Cognitive Reading Strategies

Cognitive reading strategies refer to the specific techniques that readers use to process and understand texts. H. Douglas Brown (2007) defines strategies as methods or plans used to approach a problem or task. In reading, these strategies help learners actively engage with the text.

Cognitive strategies include a wide range of activities such as:

- Guessing meaning from context
- Using a dictionary when necessary
- Taking notes
- Creating mental images
- Activating prior knowledge
- Summarizing and paraphrasing

- Identifying text structure
- Skipping less important difficult words
- Re-reading for clarity

The main difference between skilled and less skilled readers lies in how effectively they use these strategies. Research by Richard Anderson and colleagues (1985, cited in Richek, 1989) shows that skilled readers have several important characteristics.

First, skilled readers are constructive. They actively build meaning by connecting new information with what they already know. Second, they are fluent, meaning they can recognize words quickly and focus on understanding rather than decoding. Third, they are flexible, adjusting their reading strategies depending on the purpose and difficulty of the text. They also monitor their comprehension and use "fix-up strategies" such as re-reading when they encounter difficulties.

In addition, skilled readers are motivated. As Françoise Grellet (1981) points out, motivation plays a key role in reading. Students who are interested in what they read are more likely to engage deeply with the text. Finally, skilled readers are lifelong learners who continuously improve through practice.

Cognitive strategies are essential because they help learners connect new information with existing knowledge. According to Gregory Schraw (1998), while cognitive strategies help perform tasks, metacognitive awareness helps learners understand how they are performing those tasks.

In general, reading strategies have several key characteristics:

1. They are conscious and purposeful
2. They change depending on the situation
3. They are used to solve problems

4. They depend on the reading task and context
5. They aim to improve comprehension
6. They help overcome difficulties in understanding

Teaching reading comprehension, therefore, should involve explicitly teaching these strategies so that students can use them independently (Stetter & Hughes, 2010).

1.6. Cognitive Reading strategies

Brown (2007) defines strategies as the ""specific methods of approaching a problem or task, modes of operation for achieving a particular end, planned designs for controlling and manipulating certain information. What differentiate between poor and good readers are reading strategies.

Cognitive strategies can be divided into the following elements: recognizing, using topics, guessing from the context, using a dictionary, writing down, imagery, activating background information, summarizing, using linguistic clues, using text markers, skipping the difficult parts' and repeating words or phrases.

A reader will comprehend better if he/she uses range of reading strategies. Besides, a strategic reader does have unique features as compared to less strategic readers. Anderson, Hiebert, Scott, & Wilkinson (1985) as cited by Richek (1989) said that good characteristics comprehension or skilled reader read with some process which reader with poor comprehension does not have, and those are:

First, skilled readers are constructive: No reading passage is completely self-explanatory. To bring meaning to the printed text, readers draw upon their existing store of knowledge and prior experiences. Thus, readers "construct" the meaning of possess. Unfortunately, sometimes a reader cannot supply this information correctly. Students need to know the topic or at least students know the vocabularies in the text to know how to answer the questions. By reading a lot, they construct their knowledge and when they meet similar topic, they will not face any difficulty.

Secondly, skilled reader is fluent. Fluency refers to the ability to identify words easily. If readers concentrate on figuring out words, they are unable to focus on meaning.

Thirdly, skilled readers are flexible and use strategies that are appropriate to each reading situation. They change and direct their reading style depending upon their purpose for reading, the complexity of the text, and their familiarity with the topic. Unlike poor reader, skilled readers monitor their reading comprehension. If something in the text is puzzling, they will go back and use fix up strategies, such as re reading, rephrasing the text to improve comprehension, or looking ahead. Presley (2000) as cited explained that good readers are knowledgeable and strategic readers.

Finally, skilled readers are motivated. Grellet (1981) claimed that motivation is important in reading. Readers usually only read what they want to read, if they do not have any motivation on it, they cannot enjoy the text and it will make impact on their performance. Skilled reader is also a lifelong reader. Reading is a continuously developing activity, one that constantly improves through practice. It is not mastered once and for all. At all stages of reading, from the beginning on, it is important that the learner has sufficient opportunities to practice and engage in the process of reading. (Kolligian and Stenberg (1987)).

Cognitive strategies are related to integrating new material with background information and learners should use them to acquire, learn, remember, and recognize the material while reading include rehearsal, elaboration, and organizational strategies". Cognitive strategies are important to perform a task, while metacognitive reading strategy awareness is necessary to recognize how the task has been performed (Schraw, 1998), as they include both the awareness and the conscious control of one's leaning.

The definition provided here highlights some aspects of reading strategies:

1. They are conscious

2. They change from moment to moment

3. They are regarded as tactics (for attacking a problem)

4. Their use depends on the specific reading tasks

5. Context is a determinant factor

6. They are aimed at improving performance

7. They make up for the breakdowns in comprehension

Teaching reading comprehension can be done through explicitly teaching students how to utilize particular strategies in order to improve their reading comprehension skills (Stetter& Hughes, 2010).

1.8.Sub- categories of Cognitive Reading Strategies

1.8.1. Making Inferences and Reference —Predicting, hypothesizing, interpreting, and drawing conclusions about the text. Making inferences allows readers to move beyond the surface [features] of texts and to resolve the gaps in meaning that often occur. [Straightforward inferences require the reader to connect two or more propositions that are explicitly stated in the text. Although the necessary information is stated explicitly, the connection needed to understand the text has to be inferred.]

This strategy requires readers to evaluate or draw conclusions from information in a text. Authors do not always provide complete descriptions of, or explicit information about a topic, setting, character, or event. However, they often provide clues that readers can use to "read between the lines"-by making inferences that combine information in the text with their background knowledge. Zimmermann (2009) stated that inferences are often known as what you “examine between the lines.” That means the writer needs the reader to infer to the ideas that the writer has implied. He also states that “Drawing inferences from text is a method which calls for readers to apply their prior knowledge (schema) and textual information to draw conclusions, make critical judgments, and form unique interpretations from text” (p23). So, the inferences are the conclusions that a reader draws about the implied passage based on what is truly said by the writer. . (Zimmermann, 2009)

1.8.2. Activating and Using Background Knowledge

This strategy requires readers to activate their background knowledge and to use that knowledge to help them understand what they are reading. Background knowledge is made up of a person's experiences with the world (including what he or she has read), along with his or her concepts for how written text works, including word identification, print concepts, word meaning, and how text is organized. Research has established that readers' existing knowledge is critical in determining their ability to comprehend what they read. One of the most important contributions made by cognitive scientists to the understanding of how comprehension works is schema theory.

When they applied schema theory to reading comprehension, cognitive scientists found that good

readers constantly connect their background knowledge to the new knowledge they encounter in a text. In fact, they appear to activate a schema as soon they begin to read. The initial schema then activates others, thus directly affecting how readers understand and react to a text. **Examples:**

- A student who has previously studied the solar system can easily understand a text about planetary orbits because they can relate new information to what they already know.
- Someone who has visited a zoo can better understand a passage describing the behavior of animals in captivity by connecting it to personal observations.

1.8.3 Previewing-Previewing before reading is one of the strategies that can make a big difference in how well students understand what they read. The aim of previewing is to find out what students are going to read before actually reading. In previewing strategy, teachers get learners to engage with the text by reviewing titles, section heading, and caption pictures. By using this strategy, students preview to get an idea of what they will find in the text, then they try to make connections, they become acquainted with what they want to learn so their comprehension will be faster and better.

Examples:

- Before reading a science textbook chapter on photosynthesis, a student previews headings like “Light-Dependent Reactions” and “Chlorophyll Function” and anticipates that the section will explain how plants convert sunlight into energy.

- In a history class, a student previews a chapter titled “The Industrial Revolution” by looking at images of factories and captions mentioning labor and machinery, allowing them to predict key themes before reading.

- When reading a newspaper article, previewing bullet points, subheadings, and bolded terms helps the reader decide which sections to read carefully and which to skim.

1.8.4. Skimming and scanning: are a high-speed reading that can save the time and help the readers get through lots of material quickly for its gist. Skimming is reading the text quickly moving their eyes across the text for its gist. It is used by readers to get the main concept about the content of the material by analyzing the textual content fast i.e. in this strategy, readers will search for something general ideas before setting effort into close studying (Grellet, 1999, P, 2-25). With the help of this strategy students have an advantage of being able to predict the purpose of the text, the main idea, and supporting ideas. Skimming gives readers the benefits of being able to predict the purpose of the passage, the main topic, or message, and possibly some of the supporting ideas.

- ❖ Students look for main ideas, overall structure, or the writer’s purpose before engaging in detailed reading.
- ❖ *Example:* Skimming a news article about a recent election, students focus on headlines, subheadings, and bold text to identify the main events and results.

Scanning is a quick search for some particular information in a text, such as dates, names, places, definitions of main points, etc. Scanning exercises may ask students to look for names or dates, to find a definition of a key concept, or to list a certain number of supporting details.

- ❖ E*xample:* Scanning a biology textbook to locate the definition of *photosynthesis* or the steps of the process.

- ❖ *Example:* Looking through a history passage to find the year a significant treaty was signed.

1.8.5 Paraphrasing and Summarizing

Summarizing involves the ability of readers to pull together, or synthesize information in a text so as to explain in their own words what the text is about. Summarizing is an important strategy because it can enable readers to recall text quickly. It also can make readers more aware of text organization, of what is important in a text and of how ideas are related.

In paraphrasing strategy, students check their comprehension by restating the information and ideas in the text. These strategies encourage students to become strategic and independent learners. Students restate the text in different words/own words, that help less skilled readers to improve the basic understanding of the information contained in the words/sentences/paragraphs and the whole text. According to Oxford (2006), summarizing is a brief description of the key ideas or components of something without any additional information.

- *Example:* After reading a passage on photosynthesis, a student might summarize: "Photosynthesis is the process by which plants use sunlight to produce food, releasing oxygen in the process."

- *Example:* Summarizing a short story about friendship: "The story shows how trust and support help two friends overcome a conflict."

Paraphrasing:

- Involves **restating information from the text** using different words while maintaining the original meaning.

- *Example:* Original: "The industrial revolution led to massive urbanization and new factory jobs."
  Paraphrase: "During the industrial revolution, many people moved to cities to work in factories."

- *Example:* Original: “Photosynthesis requires sunlight, carbon dioxide, and water.” Paraphrase: “Plants need light, CO_2, and water to make food through photosynthesis.”

1.8.6. Predicting

Magiliano (1993) describes predicting as the process of thinking ahead about what might happen next in a text. Skilled readers use **visual cues, headings, illustrations, and prior knowledge** to anticipate the content, enabling them to construct meaning actively even before they start reading. Predicting is more than guessing; it is an informed, strategic way of connecting **existing knowledge to new information**.

Practical Examples:

- Before reading a story titled *“The Lost Treasure,”* students may predict that it involves a quest, challenges, and hidden valuables.
- While reading a science article on climate change, students may anticipate mentions of pollution, greenhouse gases, and global warming effects.
- In a historical text about World War II, students might predict discussions of major battles, political leaders, and treaties.

Classroom Application:

- Teachers can display the title, headings, and pictures from a text and ask students:
    1. *What do you think this text will be about?*
    2. *Which key vocabulary words might appear?*
    3. *What events, outcomes, or concepts do you expect to see?*
- As students read, they can **check predictions**, modify them, and reflect on what matched or differed from their expectations.

Vocabulary Connection:

- Predicting helps students guess the meaning of unknown words using **context clues**, reducing overreliance on dictionaries.
- For example, in a paragraph about a "bioluminescent organism," students might predict that it has something to do with **light or glowing**, based on the word parts (*bio = life*, *luminescent = light*).

1.8.7. Visualizing

Visualizing is the ability to create **mental images** of a text while reading. By picturing scenes, events, or processes, students can **better understand and remember the text**. Visualization transforms abstract ideas into concrete images, enhancing comprehension and retention.

Practical Examples:

- While reading *"The forest was dense and dark, with rays of sunlight piercing through the canopy,"* students can imagine walking through a shadowy forest with light filtering down.
- In a science textbook, visualizing the process of photosynthesis helps students imagine sunlight, leaves, and the chemical transformation.
- In literature, imagining a character's actions or emotions can help understand motives and predict behavior.

Classroom Application:

- Ask students to **draw a scene** from the text or describe it in their own words.
- Encourage students to **share mental images** with partners to discuss their interpretations.
- Pair visualization with predicting: students can **visualize what might happen next** based on context and clues.

1.8.8. Problem-Solving Strategies

Problem-solving in reading involves **actively addressing comprehension difficulties** using multiple strategies. It is a higher-order skill that combines flexibility, persistence, and strategic thinking. Readers can **reread**, clarify ambiguities, guess meaning from context, or use word analysis to understand challenging texts.

Techniques Include:

1. **Rereading** – Go over sentences or paragraphs that are confusing.
    - *Example:* A student rereads, "The cat slinked furtively into the shadows," to ensure understanding that "slinked furtively" implies stealthy movement.
2. **Guessing from context** – Use surrounding words and sentences to infer meaning.
    - *Example:* "The arid climate made the desert inhospitable. Few animals survived here." → Arid = dry, harsh.
3. **Using affixes and word parts** – Analyze prefixes, suffixes, or roots.
    - *Example: Unbelievable* → un (not) + believe = not believable.
4. **Skipping less important unknown words** – Focus on the overall meaning rather than getting stuck on a single word.
5. **Using a dictionary selectively** – Only when context clues fail.
6. **Verbalizing** – Saying words or phrases aloud to aid memory and comprehension.

Discourse Markers:

- Words like *however, therefore, because, in addition, on the other hand* signal relationships between ideas. Recognizing these helps students **track arguments, cause-effect relationships, comparisons, or contrasts** in the text.

Practical Examples:

- *Cause and Effect:* "Because the river flooded, the villagers evacuated their homes." → Students understand "flooded → evacuated" relationship.
- *Contrast:* "John prefers coffee; however, Sarah drinks only tea." → Students understand opposite preferences.
- *Addition:* "The city has many parks. In addition, it has excellent public transportation." → Students see the cumulative idea.

Classroom Application:

- Teach students to highlight **signal words** while reading.
- Create exercises where students **replace unknown words with their own guesses** before checking in a dictionary.
- Practice reading comprehension passages that require **rereading, visualization, and inference** to solve problems

Context Clues for Vocabulary Development

Understanding unfamiliar words is a major challenge in reading comprehension. **Context clues** are hints provided by the surrounding words or sentences that help readers infer meaning. Teaching students to use context clues is crucial for independent reading. There are several types of context clues:

1. Definition Clues

Definition clues give the meaning of an unfamiliar word directly in the sentence. They are often introduced by phrases like *"that is," "which means,"* or *"refers to."*

Examples:

1. *His emaciation, that is, his skeleton-like appearance, was frightening to see.*
    - Meaning: **Emaciation = extreme thinness**
2. *The arboretum, which is a place where different kinds of trees are grown and studied, attracts many visitors every year.*
    - Meaning: **Arboretum = a garden of trees**
3. *A symphony, a long piece of music performed by an orchestra, requires careful listening.*
    - Meaning: **Symphony = orchestral music piece**

Classroom Activity:

- Highlight words that are defined in the text and have students **rephrase the sentence using their own words for the unknown word**.

2. Example Clues

Example clues help clarify a word through specific instances, often introduced by *"such as," "including,"* or *"for example."*

Examples:

1. *Celestial bodies, including the sun, moon, and stars, have fascinated humans for centuries.*
    - Meaning: **Celestial bodies = objects in the sky**
2. *Carnivores, such as lions, tigers, and wolves, eat mostly meat.*
    - Meaning: **Carnivores = meat-eating animals**

3. *Renewable energy sources, for example, wind, solar, and hydro power, are becoming increasingly important.*
    - Meaning: **Renewable energy sources = sustainable energy types**

Classroom Activity:

- Students underline the examples and **guess the meaning of the highlighted word**.
- Extension: Write their own sentence using the new word and an example.

3. Synonym / Restatement Clues

Synonym clues provide the meaning of an unknown word by using another word or phrase with a similar meaning.

Examples:

1. *The mountain pass was a tortuous road, winding and twisting like a snake around the trees.*
    - Meaning: **Tortuous = winding or twisting**
2. *The lecture was tedious, boring the students to sleep within the first ten minutes.*
    - Meaning: **Tedious = boring**
3. *The artist's rendition of the landscape was lifelike, almost appearing real to the viewer.*
    - Meaning: **Rendition = representation**

Classroom Activity:

- Students find synonyms or restatements in a paragraph and **replace the unknown word with the synonym** to check understanding.

4. Contrast / Antonym Clues

Contrast clues define a word by showing how it is different from another word. Signal words include *"but," "however," "instead,"* or *"on the other hand."*

Examples:

1. *When the light brightens, the pupils of the eyes contract; however, when it grows darker, they dilate.*
    - Meaning: **Dilate = expand**
2. *Unlike her cheerful sister, Emma was melancholy and rarely smiled.*
    - Meaning: **Melancholy = sad**
3. *The desert was arid and dry, but the rainforest was lush and wet.*
    - Meaning: **Arid = dry**

Classroom Activity:

- Identify antonyms in text to **infer meanings of unknown words**, then create their own contrast sentences.

5. Analysis / Structural Clues

Structural clues involve breaking down a word into **prefixes, suffixes, or roots** to infer its meaning.

Examples:

1. *The story is incredible. The root "cred" means "to believe," and the prefix "in" means "not." Therefore, incredible = unbelievable.*
2. *The biologist studied microorganisms, tiny living things not visible to the naked eye.*

- Meaning: **Microorganisms = tiny organisms**

3. *Unpredictable weather can make outdoor plans very difficult.*

    - Meaning: **Unpredictable = not able to be predicted**

6. Cause and Effect Clues

Cause and effect clues provide hints through relationships signaled by words like *"because," "since," "therefore,"* or *"as a result."*

Examples:

1. *She wanted to impress her guests with her cooking, so she studied the culinary arts.*

    - Meaning: **Culinary = related to cooking**

2. *The roads were icy because the temperature had dropped below zero overnight.*

    - Meaning: **Icy = covered with ice**

3. *He was exhausted after running the marathon, therefore he slept for twelve hours straight.*

    - Meaning: **Exhausted = extremely tired**

2. Levels of Reading

Comprehension is understanding what is being said or read. When it comes to reading, it is an active process that must be developed if a learner is to become a proficient reader. Effective reading skill development is further accomplished when the learner becomes proficient in literal, inferential and critical comprehensive reading.

2.1 First Level Literal Comprehension

This is the level what the author is actually saying. The first level, literal comprehension, is the most obvious. Comprehension at this level involves surface meanings. At this level, teachers can

ask students to find information and ideas that are explicitly stated in the text. In addition, it is also appropriate to test vocabulary. "Being able to read for literal meanings that stated ideas is influenced by one's mastery of word meanings in context'. The reader needs to understand ideas and information explicitly stated in the reading material. Some of this information is in the form of recognizing and recalling facts, identifying the main idea, supporting details, categorizing, outlining, and summarizing. The reader is also locating information, using context clues to supply meaning, following specific directions, following a sequence, identifying stated conclusion, and identifying explicitly stated relationships and organizational patterns. These organizational patterns can include cause and effect as well as comparison and contrast. For example, some questions and activities may include:

- What words state the main idea of the story?
- How does the author summarize what she/he is saying?
- Outlining the first paragraph of the story.
- What happened first, second and last?
- How are these things alike? How are they different?
- What things belong together?
- What happened? What are important dates? What are the stated facts? (Adler, 2004)

Practical Examples:

1. **Fact-Finding:**
    - Text: *"The Amazon rainforest covers over five million square kilometers and is home to millions of species."*
    - Question: *"How large is the Amazon rainforest, and what lives there?"*
    - Activity: Students underline all **explicit facts** in a paragraph.
2. **Sequencing Events:**
    - Text: A story about a historical event.
    - Question: *"List the events in order from first to last."*

- Activity: Students create a **timeline** of events to reinforce literal comprehension.

3. **Vocabulary Context:**
    - Text: *"The volcano erupted violently, spewing lava across the village."*
    - Question: *"What does erupted mean in this sentence?"*
    - Activity: Students highlight context clues around the word and suggest a meaning.

2.2. Second Level Inferential\Interpretive comprehension

This is what the author means by what is said. The second level or strand is interpretive or referential comprehension. At this level, students go beyond what is said and read for deeper meanings. They must be able to read critically and analyze carefully what they have read. Students need to be able to see relationships among ideas, for example how ideas go together and also see the implied meanings of these ideas. It is also obvious that before our students can do this, they have to first understand the ideas that are stated (literal comprehension). Interpretive or referential comprehension includes thinking processes such as drawing conclusions, making generalizations and predicting outcomes. At this level, teachers can ask more challenging questions such as asking students to do the following:

- Re-arrange the ideas or topics discussed in the text.
- Explain the author's purpose of writing the text.
- Summarize the main idea when this is not explicitly stated in the text.
- Select conclusions which can be deduced from the text.

The reader must simply read between the lines and make inferences about things not directly stated. Again these inferences are made in the main idea, supporting details, sequence, and cause and effect relationships. Inferential comprehension could also involve interpreting figurative language, drawing conclusions, predicting outcomes, determining the mood, and judging the author's point of view. The following questions are usually asked:

- ❖ What does the author value?
- ❖ What is the theme?

- ❖ What effect does this character/event have on the story?
- ❖ How do you think this story will end? (Aarnoutse,2003)

Practical Examples:

1. **Making Inferences:**
    - Text: *"James avoided looking at the board during the test, biting his pencil nervously."*
    - Question: *"How is James feeling, and why do you think so?"*
    - Activity: Students write a short paragraph explaining **the inferred emotions or motives**.
2. **Predicting Outcomes:**
    - Text: A short story where a character faces a challenge.
    - Question: *"What do you think will happen next?"*
    - Activity: Students **predict the ending** and justify predictions with textual evidence.
3. **Interpreting Figurative Language:**
    - Text: *"The wind whispered secrets through the trees."*
    - Question: *"What does this sentence suggest about the mood or atmosphere?"*
    - Activity: Students discuss **how figurative language adds meaning** and affects understanding.

2.3 Third Level Critical\Applied Comprehension

This level is about why the author says what he or she says. Finally, the third level of comprehension is critical reading whereby ideas and information are evaluated. Critical

evaluation occurs only after our students have understood the ideas and information that the writer has presented. At this level, students can be tested on the following skills:

- ❖ The ability to differentiate between facts and opinions.
- ❖ The ability to recognize persuasive statements.
- ❖ The ability to judge the accuracy of the information given in the text.

This high level of comprehension requires the reader to use some external criteria from his/her own experience in order to evaluate the quality, values of the writing, the author's reasoning, simplifications, and generalizations. The reader will react emotionally and intellectually with the material. Because everyone's life experiences are varied, answers to some of the following questions will vary: Could this possibly happen? Is this argument logical? What alternatives are there? Is this a fact or an opinion? Do you agree or disagree with the author? What is the best solution to this problem? (Adler, 2004)

To conclude, literal, inferential and critical comprehensive reading is what makes a skilled, strong reader. This skill must be learned and developed. It does not just happen. With that thought in mind, it has also been shown that strong readers make good writers. Sustained exposure to the English language does allow for an expanded vocabulary and knowledge of correct grammar usage. When this is combined with literal, inferential and critical reading experiences, it enables writers to better express themselves.

Practical Examples:

1. **Fact vs. Opinion:**
    - Text: *"Fast food is the main reason for rising obesity rates."*
    - Questions:
        - *"Is this a fact or opinion? Why?"*
        - *"What evidence could support or contradict this claim?"*
    - Activity: Students create a **fact-opinion chart** for a short article.

2. **Evaluating Arguments:**
    - Text: Two articles with differing views on climate change.
    - Activity: Students **compare arguments**, note evidence, and decide which is stronger, giving reasons for their choice.
3. **Applying Personal Knowledge:**
    - Text: *"Learning a second language improves cognitive skills."*
    - Question: *"Do you agree based on your own experience or observations?"*
    - Activity: Students write a **reflection paragraph**, connecting text claims with personal knowledge.

Teaching Tip: Encourage students to ask: *"Is this argument logical? Could it happen? Do I agree or disagree?"* Critical comprehension fosters **lifelong analytical skills**

Conclusion

Using various strategies and techniques in teaching reading in the classroom will be beneficial for the students, so they can adjust their reading style to deal with different situations and goals. Reading strategies are "plans for solving problems encountered in constructing meaning" (Duffy, 1993, p. 232). Among the wide range of techniques, it is the readers' own decision (if necessary, with teacher assistance) to choose the most appropriate set of strategies for better comprehension of the written material. It is clear that "the strategy use is different in more proficient and less proficient readers" (Janzen, 2002, p. 287). Generally, "... strategies are essential, not only to successful comprehension but to overcoming reading problems and becoming a better reader" (McNamara, 2009, p. 36).

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Appendix L : Letter of online conference participation



CERTIFICATE OF PARTICIPATION

THIS CERTIFICATE IS AWARDED TO

Worku Seyoum

FOR HIS PRESENTATION OF THE RESEARCH ENTITLED THE EFFECTS OF COGNITIVE READING STRATEGIES ON AAU FRESHMAN STUDENTS' READING COMPREHENSION PERFORMANCE AT THE 32ND ANNUAL CONFERENCE OF THE SCHOOL OF LANGUAGE STUDIES, HELD FROM 22-23 MAY 2025 IN ADDIS ABABA, ETHIOPIA.

Yekoyealem Desie (PhD)

Interim Executive Dean, College of Education and Language Studies,
Addis Ababa University

Appendix M: Sample Article

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Jl. R.E. Martadinata No. 150 Ciamis 46251
jall@unigal.ac.id

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The Effects of Cognitive Reading Strategies on Freshman Students' Reading Comprehension Performance

Worku Seyoum Ketsela
Addis Ababa University, Ethiopia
workuseyoum2@gmail.com

Abstract

This study discusses the effect of cognitive reading strategy training on freshman students' reading comprehension performance at Addis Ababa University in Ethiopia. Of the 96 participants, 48 were randomly assigned to receive direct strategy instruction in cognitive reading strategies, while the remaining students were exposed to traditional teaching. Data collection was through reading comprehension test and interview. Participants assigned to the experimental group were interviewed immediately after they had taken the cognitive reading strategy test. In this, the interviews provided the researcher with opportunities for deeper explorations of the participants' reading experiences. Descriptive and independent t-tests examined the average pre- and post-test scores between the experimental and control groups, while within-subjects t-tests were conducted within the experimental group. In this research, both groups were tested before and after the study, and perceptions of the strategy training were obtained from the experimental group. This study employed both numerical and descriptive methods; therefore, it is a mixed-methods design. This provides more comprehensive insight into the problem to be investigated; it has the function of compensation for the limitations in using one method to interpret the results. The results indicated that the students who received cognitive strategy training improved significantly in reading comprehension compared to the students in the control group.

Keywords: Reading Comprehension, Reading Strategies, Freshman Students' Cognitive Strategies, language learning strategies

Introduction

English has dual importance in secondary schools and higher institutions of learning within the boundaries of Ethiopia. English is taught as a subject, and it is also predominantly the language of instruction. Due to these circumstances, the importance of reading is paramount for the success of students within any subject at any academic level (Ministry of Education, 2020). Most studies within Ethiopia indicate that reading is not only essential for enhanced performance within the English language classes but also has a significant impact on other subjects, for instance, history, geography, civics, psychology, agriculture, and economics, among others (Bogale, 2018; Getachew, 2018; Kebede, 2024).

Reading is a cognitive process that consumes distinct effort on the part of the reader to interpret the text (Grabe, 2009). Reading is a cognitive task in which the reader interprets, inquires, analyzes, and evaluates the text. So, engaging in such a manner, it helps the students become critical and collaborative in solving problems as they attempt to make sense of their academic text (Chinpakdee, 2021). Thus, explicit instruction of reading strategies is far more useful than simply receiving instruction on them, especially in EFL contexts where the students require distinct instructions to