Research Article

The Effect of Explicit Strategy Instruction on Students' Reading Comprehension Performance of Ethiopian Secondary School Students

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Despite the importance of strategy instruction in improving learners' reading ability, several issues remain unresolved in literature. This study investigated the effect of explicit reading strategy instruction on improving grade 11 English as a foreign language (EFL) learners' reading comprehension performance. Additionally, it attempted to see whether male or female students performed better in reading comprehension after the intervention. The quasi-experimental pre- and post-test research design was employed. Eighty-two grade 11 students from two intact classes of Kokebe Tsibah General Secondary School were randomly assigned as an experimental (EG) and control (CG) groups. While 40 students were assigned to the control, 42 (19 male and 23 female) students were assigned to the EG. The EG received explicit reading strategy instruction embedded into their English reading activities using the Cognitive Academic Language Learning Approach. While classroom observation was carried out for follow-up purposes, the reading comprehension test was used as a main data-gathering tool. The data were analyzed using percentages, means, and t-tests. The independent sample t-test results showed a significant difference in reading comprehension test scores between the CG and EG after the intervention. On the other hand, the independent sample t-test analysis indicated that there were no significant differences between male and female students in their post-test results. Finally, it was concluded that students' reading comprehension can be improved if they are explicitly taught various reading strategies (RSs). Therefore, it is recommended that EFL teachers in Ethiopian secondary schools could consider incorporating explicit instruction of different RSs during teaching reading.

1. Introduction

Globally, scholars agreed that among the four basic English language skills (listening, speaking, reading, and writing), reading skill is key as it helps learners to improve their language ability as well as all educational areas [1, 2]. However, it has been pointed out that reading in English can be a difficult task for English as a foreign language (EFL) learners [3, 4].

Likewise, in the context of Ethiopia where English is taught as a subject and serves as a medium of instruction at secondary and higher institution levels (Ministry of Education in Ethiopia (MoE)) [5], reading skill plays a great role in learners' academic success. That is why, different, local researchers, for example, Getachew et al. [6], Mulatu and

Regassa [7], and Yechalework [8] agreed among other English language skills, reading is vital for students at the secondary school and university levels. To put it differently, Ethiopian secondary and higher education learners' academic achievements in English and other non-English subjects (e.g. history, geography, and economics) depend on their ability to read and comprehend English texts. However, MoE reports that learners' general English language proficiency in general and reading skill, in particular, is at risk; children do not learn to read well before finishing primary school, and this situation lasts for students in secondary schools. Today, it is also common to hear the compliances of different local writers (such as novelists) saying that most Ethiopian learners and/or literates have poor reading habits. Moreover, Sona [9] noted that

reading difficulty affects Ethiopian students' academic success, job-related activities, and other everyday life situations. This implies that attention needs to be given to improving learners' reading ability in the local context.

Scholars in reading, for example, Grabe [1] and Straková [10] indicated that reading is a complex "cognitive" and "strategic" process of comprehending a text's meaning. Reading can be considered as an interactive process of determining meaning and solving problems, which requires deliberate efforts and the strategic skills of learners [3, 11]. As a result, research evidence has shown that instruction in the use of RSs is one way of assisting EFL learners' reading difficulties. Several recent researchers, for instance, Dugasa et al. [12], Fathi and Afzali [13], Li et al. [14], and Yapp et al. [15] have proved the idea that instruction in the use of RSs is one way of assisting EFL learners' reading difficulty. RSs, which emanated from language learning strategies (LLSs), according to Al Raqqad et al. [16], are intentional actions taken to achieve specific goals or objectives and can be used in various ways depending on the context and learner. Moreover, Shen [4] said that implicit and explicit instruction has attracted researchers in the field of teaching reading; however, explicit instruction is said to be a vital instrument and has been commonly used by researchers in EFL reading. Furthermore, studies on LLSs in the second language (L2) and foreign language (FL) context indicated that explicit strategy instruction is likely to be more effective than implicit or nonintegrated instruction [11, 17]. According to Khellab et al. [18], students could attack difficult tasks if they are explicitly taught a repertoire of strategies. In fact, explicit strategy instruction does not mean simply telling learners to use strategies; rather, it involves discussing with learners what strategies are (declarative knowledge), when, where, and why to use them (conditional knowledge), and how they can be used (procedural knowledge) to facilitate students' learning [3, 11, 16, 19]. Furthermore, studies conducted in different learning contexts suggested that multiple strategies (rather than individual) instruction improves EFL learners' reading performance [17, 19, 20]. Competent students use a broader variety of learning strategies than less competent ones [20].

On the other hand, it is important to note that these days, there is a paradigm shift to technology-based (such as web-based) instruction aiming at improving learners' academic performance in general and English language skills in particular. Because of globalization, technology-based instruction has been introduced in the Ethiopian context to improve learners' academic performance in general and English language skills in particular. For example, MoE [5] has been striving to improve the teaching of English and other content subjects in secondary schools and designed educational technology (Satellite Television) to be used throughout the country. Televised or Plasma-based instruction was designed for Ethiopian secondary school students throughout the country since 2004 to improve educational problems [21, 22]. However, teaching English through plasma television in general and reading skills, in particular, does not encourage students to be "active" readers; rather it makes them "passive" readers [22]. The first author of the current study is also an eyewitness

to such a drawback of plasma because she was one of the students who faced plasma-based instruction for 4 years (beginning from grade 9 to 12) when plasma started. Meanwhile, plasma failed to achieve its goal and is almost interrupted today. This questions the feasibility of language teaching through technology in the local context. Of course, it is undeniable that technology-based instruction can be extremely important for learners in technologically advanced countries, but challenging for countries like Ethiopia where EFL and with limited access to use technologies and little exposure to learning the language outside of school. Therefore, the present researchers argue that strategy instruction should be inevitable in EFL reading classes to promote learners' reading ability in countries like Ethiopia where the exposure to use English is mostly in the classroom, especially in government schools.

Despite the importance of reading in the Ethiopian academic sector, the latest local studies revealed that many secondary school students lack the required competence in reading skills [7, 12, 23]. From the informal discussion we had with EFL teachers at Kokebe Tsibah Secondary School, we were realizing that grade 11 students' had poor reading comprehension performance. Furthermore, from their teaching experience, the researchers also noticed that after they join universities, the majority of our students seemed to struggle with reading texts, and they scored low results during reading examinations. The problems students face in reading could be attributed to different factors; however, the present researchers think that the limited knowledge of employing RSs by students and the limited effort to teach RSs could be among the causes. For more illustration, Gashaye and Alem [24] dealt with the practice of teaching reading comprehension in Ethiopian secondary schools and reported that teachers did not practice the majority of the RSs except for asking and answering questions. Enyew and Yigzaw [25] and Mulugeta [26] also recommended the need to provide training on the uses of different strategies to both teachers and students to make students able to direct their learning in the local context. Accordingly, the personal experiences and the little attention given to the teaching of reading in Ethiopian secondary schools, are the triggers that motivated the present researchers to investigate the impact of RSs instruction on EFL learners' reading ability.

Reviewed literature shows that some local studies related to the current, have been conducted. For example, Getachew et al. [6] employed a quasi-experimental design and conducted a related study. They used reading comprehension tests and self-efficacy questionnaires as data-gathering tools. They found that students in the experimental group (EG) benefited more than the control group (CG) in reading comprehension achievement and reading self-efficacy after strategy training. Yadetta et al. [27] also conducted a study entitled "The effect of reading strategy training on grade 9 students' academic reading achievement"; the study concluded that reading strategy training brought a significant difference between the CG and EG in their reading achievements. Similarly, very recently, Dugasa et al. [12] investigated the effectiveness of explicit RSs on grade 9 students' achievement in reading comprehension. Assigning 33 students to the control

and the rest 35 students to the EGs, the authors confirmed the benefit of explicit strategy instruction in enhancing students' reading ability.

2. Research Gap

After reviewing the local studies discussed above, some research gaps were identified. Basically, the current study is different from the reviewed studies in terms of scope and some methodological aspects. To the best of our knowledge, no local researcher has employed multiple RSs (i.e., memory, cognitive, compensation, metacognitive, social, and affective) to train EFL learners during reading classes. Therefore, the authors of the current study notice that since reading activities in the three reading stages (pre, while, and post-reading) require employing different kinds of strategies, teaching students various RSs from all categories in line with the three reading stages to facilitate students' reading comprehension, seems more sound argument, instead of relying on a single RSs category or only a few mixed strategies. Second, the previous researchers had some methodological gaps, for instance, they did not clearly show which strategies were taught and how the treatment was conducted, and they did not inform the readers what explicit strategy exactly involved during their intervention. Finally, no local study checked whether male or female students performed better after the intervention. Therefore, to fill the gaps, the current study employed a combination of RSs from all strategy categories to teach reading. Classroom observation was also conducted during the intervention for follow-up purposes. Gender was also treated in the current study.

Moreover, it is worth mentioning that although L2/FL learning strategies are claimed to be effective in improving learners' performance in general and reading skills in particular, several issues remain unresolved in the literature. For instance, the context and the types of strategies to be taught, their number, and the methodological aspects of the intervention have been in debate among researchers [28, 29]. In his meta-analysis, Plonsky pointed out that despite the significance of L2 strategy instruction to learners' performance, several issues (e.g., the context where strategies are instructed, which strategies, how many of them, and how they can be taught, learners' proficiency and the dependent variables including reading skill) remain unresolved. After collecting studies conducted on the effectiveness of RSs instruction in L2 context, Maeng, [28] did a comprehensive meta-analysis and found a moderate effect on reading comprehension; he, also reported that there were negative and mixed results on the impact of strategy instruction on L2 reading. Furthermore, Al Raqqad et al. [16] commented that it is still unclear whether some strategies are better than others to improve EFL learners' reading comprehension. Hence, the present research will contribute to such controversies in the literature.

Furthermore, various empirical studies (briefly discussed in the literature section) related to the current have been conducted abroad; however, Oxford and Burry-Stock [30] noted that there is a need to replicate language learning studies within and across cultures and countries to avoid "ethnocentric bias" concerning the definition of good language strategies. Therefore, the current researchers were interested to check if explicit strategy training has any contribution to Ethiopian EFL learners' reading comprehension performance. More specifically, the study attempts to answer the following research questions.

(1) Is there a statistically significant difference between students' reading comprehension performance in the EG who received explicit training on memory, cognitive, compensation, metacognitive, affective, and social RSs and the CG who did not receive the training?

(2) Is there a significant difference between male and female students in the EG in terms of reading comprehension performance after the intervention?

3. A Review of Related Literature

3.1. L2/FL Learning Strategies and Their Effectiveness in Teaching Reading. With the emergence of the communicative language teaching approach, there is a remarkable shift in L2 and FL education, where the emphasis is placed on learners and learning rather than on teachers and teaching [20, 31]. As a result, researchers in the area of L2/FL learning have started to investigate strategies employed by learners that aid their learning. The first evidence of research on L2 learning strategies began in the 1970s in Rubin's work [32] entitled "What Good Language Learner Can Tell Us" [20]. Rubin suggested that strategies used by successful language learners can be taught to students who struggle to learn new languages, thereby improving their language skills. Hence, L2/FL learning strategies with a history of about 50 years, have been the focus of a large body of research [2, 29]. Most of the findings of strategy instruction research in L2 acquisition so far, indicate that strategy instruction has a positive influence on learners' performance [6, 29], and can be effective in all contexts for all skills [33]. Scholars recommended sufficient strategy use to support learners in doing certain language tasks, is more effective, and students with a large collection of FL/L2 learning strategies perform well [1, 34].

Oxford [35] was one of the first experts to argue that strategy teaching should be a fundamental part of language education, as it helps students gain greater competence, confidence, and self-awareness. She indicated that successful students can orchestrate and combine particular types of strategies in effective ways according to their own learning needs. Oxford divided LLSs into two main categories; direct and indirect strategies which were further subdivided into six classes (memory, cognitive, compensation, meta-cognitive, affective, and social strategies). Direct strategies are divided into memory, cognitive, and compensation strategies whereas, indirect strategies involve meta-cognitive, affective, and social strategies. Each strategy category involves several subdivisions; for instance, semantic mapping and grouping are categorized under memory strategy. While direct strategies need mental language processing, indirect strategies offer indirect support for students' learning. Oxford states that most LLSs can be

applied in the same way in both L2/FL contexts, and RSs are included in her general LLSs classifications.

RSs have been classified and defined by different scholars, for example, Oxford [35], Mokhtari and Sheorey [36], and O'malley and Chamot [37]. According to Al Raqqad et al. [16], RSs are intentional actions taken to achieve specific goals or objectives and can be used in various ways depending on context and learner; they are deliberate and goal-oriented processes that support students in generating a text's meaning [38]. Skillful learners use a repertoire of strategies to improve their reading abilities [1, 28]. In relation to the current study, among others, Oxford's taxonomy of LLS is considered because it contains a variety of RSs; it is comprehensive and applicable for EFL learners, and it is mostly acknowledged by various researchers.

On the other hand, although there is general agreement between researchers and experts on the importance of L2/FL strategies, there has been little agreement on how to support learners' to employ strategies for language learning and use them [29]. As a result, various FL/L2 teaching models including the Cognitive Academic Language Learning Approach (CALLA) were introduced in different settings. It was developed in the United States [39] to help English-language learners of immigrants with learning difficulties. According to Chamot and Robbins [40] CALLA, incorporates instruction in important topics from the content course, the language skills needed for learning in school, and explicit instruction in using a variety of learning strategies for academic tasks, and it can be applied in L2, FL, or EFL contexts. These components, according to Gu [11] and Chamot and Robbins [40] are taught in the following five-instructional arrangement phases which allow for teachers' gradual release and encourage students to be autonomous learners. The five instructional phases are: (1) preparation: learners prepare for strategies instruction by identifying their prior knowledge about and the use of specific strategies; (2) presentation: teacher demonstrates a new learning strategy and explains how and when to use it; (3) practice: learners practice using the strategy with regular class activities; (4) evaluation: learners self-evaluate their use of the learning strategy and how well the strategy is working for them; and (5) expansion: learners are supported to transfer the learning strategy and apply it to new situations/tasks [39, 40]. The effectiveness of the CALLA model on learners' reading ability have been also proved by foreign researchers [13, 14, 34].

Therefore, in this paper, CALLA was selected as the teaching model to implement LLS instruction during reading classes because as discussed before it, (1) involves explicit instruction in a variety of strategies, (2) lets gradual releases of teacher scaffolding and helps learners to become independent readers, (3) helps learners to transfer strategy to new tasks, and (4) the efficacy of this model in enhancing EFL learners reading ability have been proved.

3.2. Empirical Studies. EFL students' RSs use has been among the key area of FL strategy research [34]. 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. For example, Fathi and Afzali [13] investigated the "Effect of Second Language Reading Strategy Instruction on Young Iranian EFL Learners' Reading Comprehension." They employed a quantitative approach and quasi-experimental design with CG and EG. Using the two intact groups, the students were assigned to EG ($N = 25$) and CG ($N = 23$). Students' homogeneity in terms of their general English proficiency level was identified through a pretest, then the experimental group received RSs instruction that was integrated into the regular reading instruction, and the experiment lasted for 12 weeks; both groups were taught by the same teacher. Using pre- and post-reading tests, the findings of their study revealed that after receiving strategy interventions, the EG was more successful in reading comprehension than the CG. Similarly, employing, a quasi-experimental design with the CG and EG, [41] did a 2 months strategy reading intervention; the result showed that strategy instruction improved ESL learners' reading performance and promoted their participation in strategic reading. Zhang noted that some strategies seem to require more cognitive practice for learners, so activating them may require more practice.

Furthermore, Wichadee [42] studied the effectiveness of explicit instruction of metacognitive strategies on learners at a private university in Thailand; questionnaires, tests, and semistructured interviews were used as data-gathering tools. The finding indicated that strategy-based instruction could improve reading test scores and contribute to learners' increased awareness of the use of strategies by learners. The author pointed out that while most students seemed more prepared to adopt strategies in reading, low-performing students may need more practice to understand how strategies are used, but the study employed metacognitive strategies and did not have a comparison group. Yapp et al. [15] examined "the effects of RSs instruction on EFL students' academic reading comprehension." A total of 801 first-year polytechnic students received training on seven L2 RSs during reading classes for 7 weeks. The study pointed out that in L2 teaching programs, the explicit instruction of RSs can benefit students, especially because the RSs that were taught in the first language are not transferred to L2. Similarly, Chinpakdee and Gu [3] researched the impact of explicit strategy instruction on EFL secondary school reading. A total of 62 students participated meaning that 30 students were assigned to the EG and 32 of them were assigned to a comparison group. Nine strategies were presented and introduced to the intervention class for a semester, the reading test, thinking aloud, and group interviews were employed as data-gathering tools. The finding pointed out that students in the intervention class outperformed the comparison class in their post-reading test; the group interviews also indicated that students had positive attitudes toward the treatment.

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, studies that employed sociocultural theory (SCT) as a theoretical framework seem lacking, which can be taken as a gap. Moreover, all the reviewed studies have

been conducted abroad in different contexts. Therefore, the present researchers noticed 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.

3.3. *Criticism of Strategy Training.* Despite the notion of strategy training attracting a number of researchers in the field of L2/FL language learning, the literature reveals that the concept of learning strategies is not without criticisms. A number of issues in relation to learning strategies, for example, the definition given to LLSs, the methodology used to elicit, measure, and classifications made, the lack of theoretical rigor of learner strategy research, have received criticisms [29, 43].

Similarly, with regard to EFL RSs, Al Raqqad et al. [16] analyzed 13 empirical studies conducted in relation to RSs training in the EFL context, and reported that the results of research in the reviewed literature suggest that teaching RSs seems to improve learners' reading comprehension; however, the authors remind the reader that it is not yet clear whether some strategies are better than others. Furthermore, after collecting 37 empirical studies conducted on the effect of strategy training on L2 reading, Maeng [28] did a met analysis and found that a number of studies reported positive effects of explicit strategy instruction on L2 reading comprehension; however, the positive results have been conducted in various learning situations (e.g., L2/FL), settings (secondary and elementary schools), treatment (the type and number of strategies). The author also pointed out there were negative and mixed results; Maeng commented with such questionable outcomes, it is challenging to ascertain the overall effect of strategy instruction on learners' reading comprehension.

Despite such criticisms, still, a lot of empirical evidence (including studies discussed above) has demonstrated that explicit strategy instruction has positive outcomes for students' success in EFL reading skills. Accordingly, the present study assumes that explicit strategy instruction in line with SCT, would improve EFL learners' reading ability.

4. Theoretical Framework

As the literature discloses, although it has been difficult to find a single theory that supports a single method for teaching reading, some learning theories emanated from general learning theories (e.g., cognitive, constructivist, and sociocultural) try to explain the process of learning and teaching reading skills. With regard to cognitive theory [43] argued that according to cognitive theory, strategies are located in the brain, though there are many unresolved issues and questions that undermine the theoretical basis of the research on learner strategies. Alexander and Fox [44] said the cognitive theory, which sees reading as a "mental process," focuses on the employment of background knowledge in understanding a text and information processing skills, for example, analysis of syntactic structure, identification of text cohesion, and exercising text structures which are then conscious cognitive skills, involving analysis, and interpretation of printed material.

Explicit instruction is rooted in cognitive theory [4] and this theory considers reading as an active process of involving readers' interaction to understand the text [45]. The cognitive theory assumes strategy instruction in teaching reading comprehension; however, the theory seems to give priority to learners to control their learning to read because it looks to focus on individuals and overlooks the role of social factors such as cooperative learning in shaping reading skills [46, 47]. Similar to cognitive theory, SCT gives emphasis on cognitive development; however, unlike the former, the latter gives priority to social factors followed by individual factors [46]. The constructivist theory has also influenced the field of teaching reading. Supporters of the constructivist theory claim that meaning construction occurs when the learner "actively" participates in the reading process [12]. However, it can be noticed that, like the cognitive theory, the constructivist view seems to give more attention to the role of the individual learner and seems to ignore collaborative work (such as peer work and teacher's scaffolding). Therefore, the constructivist view, which considers learners as active participants in the learning process also seems to overlook the role of social factors. As a result, proponents of SCT argue that students need to work in collaboration and should be assisted by a more knowledgeable person to improve learners' performance.

Consequently, Vygotsky's SCT which recognizes the role of social factors in the teaching-learning process, has become the focus of researchers. Vygotsky noted that cognitive and social development are both needed to foster learning, but social interaction plays an essential role in the development of cognition. This theory views human development as a socially mediated process in which children acquire their cultural values, beliefs, and problem-solving strategies through collaborative dialogs with more knowledgeable members of society. The two important concepts, scaffolding and Zone of Proximal Development (ZPD) were grounded in Vygotsky's SCT, and according to Vygotsky and Cole [48], ZPD is related to the difference between the first stage of understanding a concept and the level at which a problem is solved under the guidance of a teacher or in collaboration with more knowledgeable peers or individuals. It is about how developmental change is generated through the support of others; Clark and Graves [49] noted that ZPD clarifies the vital role of teachers as mediators and is central to the concept of scaffolding. In view of this theory, the support given to learners by a more knowledgeable person is said to be scaffolding [50]. As to Clark and Graves [49] scaffolding is an "adaptable and flexible" teaching model, which enables teachers to explicitly teach strategies to help students become independent readers and transfer strategy use. Based on SCT, teachers can transfer higher-order meta-cognitive RSs to their students by scaffolding, modeling, and thinking-aloud methods [51].

Hence, this study is closely aligned with the SCT because this theory underpins the learning process and involves the support (scaffolding) by the teacher and the interaction among students. In line with this context, the present research investigates the impact of explicit RSs instruction (independent variable) on students' reading comprehension

(dependent variable) because teacher scaffolding (explicit strategy teaching) and peer works (such as group and pair works) are believed to be fundamental to producing independent readers. In line to SCT, once students can apply the learned strategies during EFL reading tasks, the teacher support can withdraw; Ahmadi and Gilakjani [52] also noted that after helping learners to read independently, teacher scaffolding can be reduced.

On the other hand, Vygotsky's SCT has got some criticism from experts and researchers. For example, Ameri [53] indicated that sociocultural gives priority to societies ignoring individual roles, and it does not appear to be applicable to all social and cultural groups. ZPD was critiqued for being unclear and for not explaining how developments in a child happen; the term scaffolding is not also explicitly indicated in Vygotsky's SCT. Despite such criticisms forwarded to SCT, still, the theory becomes a continual source of debate among scholars. According to Ameri [53] in Vygotsky's theory, ZPD would be important for classroom teachers; they could first identify students' current skill level to give appropriate assistance to the students, for example, the teacher arranged situations in a way less skilled students could work with more skillful students.

In this context, after assessing students' current reading ability through a pretest, the present study aims to assist students in improving their reading through RSs training. Furthermore, SCT seems important in the Ethiopian context since most learners have no exposure to learning English in general and reading skills in particular outside schools.

5. Research Design and Method

To answer the research questions, the study followed a quasi-experimental pre- and post-test research design because it was not practical to form artificial classes; concerning this Creswell [54] states that in quasi-experiment, the assignments are not random, but there may be intact groups available to the researcher. Accordingly, in the current study, two intact classes were randomly selected and were further assigned as CG and EG using a simple random sampling technique.

Although the quasi-experimental design is exposed to internal validity threats such as selection history, maturation, selection bias, instrumentation, testing, and selection regression [54], in this study, an attempt was made to control such validity threats (if not totally controlled). For instance, an attempt was made to control a threat to history. First, though the target students had relatively similar educational backgrounds since they were from government schools, their reading comprehension performance was checked through the pretest. Another threat in relation to teacher history was minimized by assigning the same teacher to teach both the CG and the treatment group thinking that if the students were taught by different teachers there would have been biases on the final result as teachers could have been varied in their experience, for example, one teacher might have long years of teaching experience while the other might not. Moreover, training was given to an EFL teacher who did

the experiment. Besides, the same reading comprehension test was given as a pre- and post-test for both groups to minimize the instrument effect. The same teaching content of the textbook, at the same time, was provided in the same classroom environment to both CG and EG.

This research followed the quantitative research methods which employed quantitative data to answer the research questions, and the type of research (qualitative, quantitative, or mixed methods) guides the researcher to employ an appropriate form of research paradigm. Creswell [54] has focused on three approaches: quantitative, qualitative, and mixed methods. The first two have been available for decades, and the last is relatively new. According to the author, there are four schools for knowledge claims: postpositivism, constructivism, transformative, and pragmatism. Postpositivism challenges and represents the thinking of positivism [55]. Like the positivist view, postpositivists' assumptions hold true more for quantitative research than qualitative research, but the former holds objective reality, based on observation and follows scientific procedure, the latter claims that there is no absolute truth [54, 55]. In postpositivism, a researcher begins with a theory, collects data that either supports or refutes the theory and then makes necessary revisions and conducts additional tests [54]. Hence, based on the nature of the research problem, the purpose of the study and the research questions (that employ quantitative data), the philosophy of the current research tends to be postpositivism rather than positivism because the potential biases from the researchers could not be completely avoided.

5.1. Selection of the Research Site and Subjects. This study was conducted in Addis Ababa city administration, which is the political, economic, and capital of Ethiopia. The city was selected for its proximity because while the first author is attending her PhD program at Addis Ababa University, the second author is working at this university. Among the available public schools, located in different subcities, Kokebe Tsibah General Secondary School was purposefully selected for one main reason. The researchers were informed that around 500 students took the grade 12 national examinations in the 2022 academic year, but surprisingly only 31 of them got the expected results for the university entrance. Therefore, since reading is said to be crucial for students' educational success, students' reading comprehension ability in the aforementioned school needs to be improved.

Grade 11 students were intentionally selected for some reason. First, these students have to prepare for national exams after a year, so they need to know the learning strategies that help them understand the reading passages easily. Second, as far as experimental study is concerned, various intervening variables can affect the validity and reliability of the findings. As a result, grade 11 students were purposively selected to minimize the effect of intervening factors; because these students are believed to be relatively homogenous concerning ages and educational backgrounds compared to those university students who come either from private or government schools. On the other hand, grade 12 students were not selected because they were national exam takers.

Similarly, primary school students were not the subject of the study because it is believed that these students may not understand and employ the strategies they are supposed to learn better compared to junior students. In relation to this, Rubin [32] underlined that the use of LLSs depends on several variables, including the level of proficiency, and as students' progress to higher levels of proficiency, they make more use of strategies. Furthermore, students in social science were randomly selected through a lottery method. Therefore, both the CG and EG were in the same stream, which was important to control the intervening variables. Since it was difficult to include all grade 11 students in the selected school, the researchers randomly selected two sections that were assigned as the CG and EG. This is to mean, section J ($N = 40$) and section I ($N = 42$) were, respectively, assigned to comparison group and EG. Hence, a total of 82 students (i.e., 40 students in the control and the rest 42 students [23 female and 19 male students]) participated in the study.

5.2. Instruments. The main data were obtained by the standardized TOFEL iBT reading test administered for both CG and EG before and after treatment. The pre- and post-reading tests were administered to gather information on the reading comprehension performance of grade 11 students before and after the treatment. The pretest was used serving as a baseline to see the reading comprehension performance level of students in the two groups, giving room for the researcher to measure what the level of reading was at the start. The aim of the post-test was to see whether the students in the EG improved their reading ability because of the treatment.

Having permission from the Educational Testing Service to use the TOEFL iBT practice test, the standardized reading test was selected from the TOEFL online practice test and administered before and after the treatment. The test was used because it was considered more appropriate and reliable compared to self-administered tests. The test contained three short passages and comprised 30 items (each passage contained 10 multiple choice questions) having one mark for each question answered with a total of 30% marks. Each item had four choices for the correct answer. The multiple-choice format was chosen because, as suggested by Seid [56], this type of test is considered familiar to students, easy to administer, and can be scored quickly. It can also help to minimize bias associated with marking and scoring procedures. The selected reading comprehension test was purposive focusing primarily on identifying main ideas and specific details as well as guessing meanings that were practiced during the training. In other words, the test contained reading questions that allowed readers to use various RSs that were included and practiced during the training.

It is worth mentioning that the same test was administered as a pre- and post-test to both groups to control the content variables. Researchers agreed that giving the same test during pre- and post-testing is possible to avoid the problem of equating different forms of pre- and post-tests [12, 57], but the memory effect needs to be minimized.

Brown [57] suggested that the same test can be administered after an average time of 3 weeks to minimize the memory effect. Moreover, Song notes that students would not be given the correct answers after the pretest, so even if they managed to remember a question; they would not know whether their answer on the pretest was correct or not. Therefore, administration of the same test before and after the intervention is possible. Accordingly, in the current study, an attempt was made to minimize the testing effect for the following reasons: (1) students scored low results in their pretest, (2) the post-test was administered after 7 weeks of the pretest, and (3) after administering the pretest, the students were not given the correct answers.

To reduce the potential biases of test administration, the following measures were taken. During the administration of both pretest and post-tests, students in CG and EG took the test in the morning session with the regular schedule of the school but in different classes. The test was administered by two recruited assistant data collectors for each class under the supervision of the researchers. Before starting the test, the participants were informed that the result of the test would not affect their regular class results, so they would do the test freely. The purpose of the test was also explained to the participants, and they were informed that there were no right or wrong answers. The participants were informed that the time for completing the test was an hour and no extra time was allowed to do the test. Accordingly, participants began to read the passages and respond to the questions, and they completed the test based on the time they were provided. Both the pre- and post-test were administered, collected, and marked by the aforementioned recruited data collectors to reduce the unnecessary influence of the researchers. While marking the papers, the data collectors were not informed whether the research participants were in the CG or the EG, but codes were given to each group's test papers. Finally, in collaboration with the recruited data collectors, the collected data were organized, coded, and entered into SPSS.

In the present study, observation was conducted for experiment fidelity. It was made to make sure whether the strategy instruction was implemented in reading classes according to the purpose of the research and to help the trained teacher if he encountered any problems. In other words, the purpose of the observation was not to answer any research questions rather to attend while the teacher was implementing explicit strategy instruction during reading classes. The observation was held in March, during the second semester of the 2022 academic year. The students had two reading periods per week, and a total of six classroom observations were made in the treatment group for three consecutive weeks.

The observation was designed in line with the CALLA teaching procedure. As discussed in the literature section of this study, CALLA is an instructional approach for second and foreign language learners, which incorporates the teaching of important topics from the content course, the language skills needed for learning in school, and explicit instruction in using learning strategies for academic tasks [40]. The observation checklist with 10 items that were designed

according to the CALLA teaching procedure and that has a "Yes" or "No" response was adapted from Enyew and Yigzaw [25] and Barrios Núñez [58]. During the six round observations, the researchers of this study did the observation in collaboration. This to meant, while one author put a tick mark in the box the other author did the qualitative description (taking notes and comments). Moreover, the observation was accompanied by instructional fidelity checklists designed in line with items incorporated in observation checklists. The researchers did not use any recording materials. The trained teacher was also provided the printed materials that have a weekly check sheet. The researchers and the teacher had meetings to discuss issues related to the treatment on other days other than the observation sessions. On the other hand, since students in the CG did not receive strategy training, the researcher rarely visited the class to see the teaching–learning process. In general, detailed explanation is found in the analysis.

5.3. *Validity and Reliability of the Test.* As stated before, the TOFE iBT practice test was used as the main data-gathering tool. The test is an internationally standardized test that students around the world take, and the expertise of Educational Testing Service checks for the validity of the test. Besides, O'Dwyer et al. [59] studied the relationship between TOFEL iBT scores and academic performance in Turkey, and the results confirmed a moderate to moderately high predictive validity for TOFEL iBT. The study concluded that the predictive validity of the test was in line with institutions' proficiency tests and signified a strong achievement measure for use in a nontarget language context.

Furthermore, though the TOFEL test is standardized, in the present study, the test was subjected to the comments of two grade 11 experienced EFL teachers in a Kokebe Tsibah Secondary School and a supervisor to assure its content and face validity before being applied in the final study. Based on the comments, the instruction was slightly modified, and some long and confusing distractors in the multiple choice were reduced. Then the commented version of the test was piloted to similar participants before it was applied to the main study. Accordingly, after administering the reading test to 20 students other than the main study, the results of the test scores were coded and entered into SPSS. Then Cronbach's alpha was computed to achieve the internal consistency of the items, and the reliability coefficient of alpha was found to be 0.720, which is acceptable.

5.4. *Teaching Material and Procedures of the Experiment.* This study was carried out from February 11, 2022 to April 25, 2022, at Kokebe Tsibah General Secondary School. After the preparation of the teaching material, the whole experiment was conducted over 11 weeks—8 weeks for treatment and 3 weeks for teacher training and administration of the pre- and post-tests. The teaching material preparation process along with the whole experiment procedure is briefly discussed in the following section.

The teaching manual was prepared based on activities in students' textbook and CALLA teaching approaches. The same reading passages from the grade 11 English for Ethiopian students' textbook were chosen for both EG and CG. Preparing another new material was unnecessary because it is believed that the students' textbook itself contains authentic reading tasks or activities relevant to strategy instruction. To implement the treatment, the researcher selected five reading passages from three units of the student textbook; the selected reading passages were the following. The Tale of a Tape and How the World is Dealing with Water Shortage from Unit eight, Disability is no Obstacle to Success, and Palm Leaves of Childhood from Unit nine, and The Miracle on the Han River from Unit ten. The selection of the reading passages starting from the middle (unit eight) was purposive because the intervention was conducted during the second semester of the academic year and those reading lessons were covered during that semester.

The RSs for the training that were integrated with reading activities were mainly adopted from Oxford [35], which involves six concrete RSs: memory, cognitive, compensation, metacognitive, social, and affective strategies. Oxford's taxonomy was selected for this study for the reasons mentioned in the literature review section. It is also worth mentioning that although Oxford listed many RSs, this study focused on the following RSs: semantic mapping, prediction, getting ideas quickly (i.e., skimming and scanning), taking notes, summarizing, guessing intelligibly, self-monitoring and self-evaluating, self-encouragement, and cooperating.

The aforementioned RSs that were taught explicitly to the EG were deliberately used for the current study for some reasons. First, it is important to mention that obviously, there are different reading comprehension skills (including inference, main idea or reading for gist, reading for details, and vocabulary). Accordingly, the selected RSs were in line with the standardized reading comprehension test that was used in this study and comprised of identifying main ideas, specific details, and guessing meanings. For example, semantic mapping plays a vital role in the activation of learners' prior knowledge before reading a particular text. Skimming helps students to get the main idea without detailed reading. According to Oxford, guessing is another important strategy; students can guess in order to understand a given text by using linguistic and other clues (e.g., prefixes, suffixes, pictures, and headings) without necessarily comprehending all the details. Self-monitoring and self-evaluating are also important strategies. In the case of monitoring, learners take responsibility for their learning; they notice and learn from errors. Learners skim or may guess the idea of the text, and correct any misinterpretation as they move ahead and monitor themselves if they can understand the text. Self-evaluation is concerned with evaluating one's overall progress. Moreover, several related foreign empirical studies that were briefly discussed in the literature section confirmed the effectiveness of the selected RSs in EFL reading contexts. In other words, as the efficacy of the selected RSs in improving EFL learners' reading ability has been proved by different studies conducted abroad. Accordingly, the current researchers assume that if Ethiopian students are familiar with the selected RSs, they could understand English texts and tackle reading comprehension tasks easily.

The designed instruction material contains the types of RSs, their definition, and how, when, and why to use them for reading purposes. It was designed according to activities and strategies related to the pre, while, and post-reading stages. It was also prepared based on the objective of the grade 11 students' textbook/syllabus and the CALLA training procedure. Hence, to prepare the teaching material, the researchers followed the five phases of CALLA proposed by Chamot and Robbins [40] that were discussed in the review of the literature. This model was also selected because of the reasons discussed in the literature.

Finally, the teaching material was validated by the supervisor, two experienced ELT PhD candidates at Addis Ababa University. Accordingly, in the beginning, about 43 RSs were selected and included in the teaching material. Then, the material was subjected to the supervisor and a panel of judges of the two PhD EFL candidates at Addis Ababa University. During the validation of the teaching material, the supervisor checked and evaluated the RSs in terms of amount, appropriateness, and clarity. Finally, he recommended reducing the number of RSs from 43 to 28 suggesting that such amount of strategy needs long-term training to practice in reading tasks. The EFL candidates also suggested students become bored of practicing several strategies instead they could be effective if they are taught some important RSs. In other words, the candidates recommended that neither too much nor a few strategies should be presented to the students. Finally, taking the comments into consideration and looking at what the literature points with regard to the worth of RSs, the RSs were further reduced to 11.

Afterward, having a letter from Addis Ababa University, the researchers went to Kokebe Tsibah General Secondary School and were granted permission from the administrators and the Department of English Language to conduct the study on grade 11 students. Based on the consensus, training was given to the EFL teacher who was proposed to conduct the treatment to avoid teaching bias. The training basically involved what explicit RSs instruction is, the types of RSs to be taught together with their definitions, and the teaching model to be used. During the training, the teacher received explanations and model demonstrations of what, why, when, and how to use strategies in different reading passages. The training was supported by free discussion, reflection from the trainee, as well as comments and feedback from the trainer. The instructional fidelity checklists were prepared and provided to the trained teacher.

Next, the prereading test was administered to the CG and EG. A day after the pretest, the treatment was started by the trained teacher, but before starting the treatment, students in the EG were informed that the purpose of the treatment was to help them improve their reading ability. The treatment lasted for 8 weeks and comprised 16 teaching sessions—two periods per week. This means, there were two reading periods per week, as a result there was a total of 16 teaching sessions. Since each teaching session had 45 min per period, the treatment lasted 90 min per week. The CG received instruction based on the usual teaching method. In other words, while students in the CG group did not receive any treatment, students in the EG were taught various strategies and they were let to practice the strategies with different reading activities in the three reading stages (the pre, while, and post-reading). The treatment was based on the integration of explicit strategy instruction using the CALLA teaching model and specific reading tasks in the textbook). The RSs were practiced in line with the three reading stages (the pre, while, and post), for instance, students were encouraged to guess the idea of a text before and while reading (detailed description of the implementation of the training as observed along with the trained teacher's feedback is found in the analysis section. Finally, after a week of the last treatment session, a post-test was administered to both groups.

5.5. Data Analysis. The data obtained from the reading comprehension test were analyzed using statistical packages for the Social Sciences (SPSS) version 24. Both descriptive and inferential statistical methods were employed for the reading test. The data gained from the observation checklist was analyzed using a percentage. To determine if the mean scores of the EG and CG were significantly different in their reading performance before and after the given treatment, the independent sample t-test was run. Similarly, to see if there was any significant difference between the reading comprehension performances of male and female students in their post-test, an independent sample t-test was used. A probability value of 0.05 was set to determine the significance levels of the results.

6. Results

6.1. Observation Results. As mentioned earlier, the observation was made for follow-up purpose, and it was conducted when students were instructed on reading skill by a trained teacher. Having the observation checklists, one author put tick marks and the other author took notes. The result of the observation is presented in Table 1 below.

As can be seen in Table 1, during all observation sessions, the trained teacher was observed while presenting and explaining the RSs, explicitly modeling the strategies using sample reading activities from the text, and promoting students to use the learned RSs in other contexts. During the first and second observation sessions, the teacher was observed while asking students what strategies they have been using in reading English texts. However, from the observation, it can be noticed that all items were not fully practiced; for example, from the first observation session, the topic of the reading passage was not introduced, and the students were not given appropriate feedback during the first and the last observation sessions. Based on the notes taken by the second researcher, during the preparation stage-students were asked what strategies they were using while reading; in the presentation stage-the teacher presented and modeled the target RSs integrating with reading tasks; in the practice stage-students were motivated to practice strategies they have learned with specific reading activities; during the evaluation stage-students evaluated their success or failure in applying strategies they learned. Finally, during the

TABLE 1: The results of classroom observation.

The teacher	Observation 1	Observation 2	Observation 3	Observation 4	Observation 5	Observation 6	Total Yes	No	% of occurrences
Introduces the daily lesson topic/title	–	✓	✓	✓	✓	✓	5	1	83.3
Activates students' background knowledge of strategy use	✓	–	✓	✓	✓	–	4	2	66.7
Presents and explains the reading strategies	✓	✓	✓	✓	✓	✓	6	0	100
Explicitly models the strategies instruction using sample reading activities	✓	✓	✓	✓	✓	✓	6	0	100
Motivates students to use reading strategies	✓	✓	–	✓	✓	✓	5	1	83.3
Facilitates pair and group works	✓	–	✓	✓	✓	✓	5	1	83.3
Guides the students to apply the reading strategies in activities	✓	✓	✓	✓	✓	–	5	1	83.3
Gives feedback to students within the process	–	✓	✓	✓	✓	–	4	2	66.7
Encourage self-assessment through peer working	✓	✓	✓	✓	–	✓	5	1	83.3
Promotes the use of reading strategies in different texts or topics	✓	✓	✓	✓	✓	✓	6	0	100

expansion stage, students were encouraged to use the learned strategies outside the class for the new tasks.

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

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

Moreover, the trained teacher's feedback in the experimental fidelity checklist indicated that most of the items in the checklist were implemented during reading classes; however, the teacher commented that time limitation was challenging

for not properly practicing the target RSs. Finally, it is worth mentioning that both the comments of the trained teacher and the classroom observation disclose that the shortage of time was a challenge for not fully practicing all RSs in different reading tasks.

6.2. Result of Reading Comprehension Test. The first research question of the study was "Is there any significant difference between students' reading performance in the experimental group who received explicit training on memory, cognitive, compensation, metacognitive, affective, and social reading strategies and the control group who did not receive the instruction?." First, to measure students' in CG and EG homogeneity in terms of reading performance before starting the training, the prereading comprehension test scores of the CG and EG were analyzed using descriptive and inferential statistics. The results of the pretest of the CG and EG are presented in the following table.

As Table 2 depicts, the premean for the CG ($M = 12.4000$, $SD = 3.09507$) and the premean for the EG ($M = 11.8810$, $SD = 3.78187$). From this, the mean of the CG is slightly higher than that of the EG before the treatment. An independent samples t-test was carried out to see if there were significant differences between the pretest mean scores of the two groups. The independent sample t-test results ($t = 0.678$, $df = 80$, $p = 0.500$), indicated that there was no statistically significant difference between the CG and EG in their pretest mean scores. This indicates that before the intervention, both CG and EG had nearly similar results in their prereading test

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

Group	N	M	SD	t	df	Significance (two-tailed)
Control	40	12.4000	3.09507	0.678	80	0.500
Experimental	42	11.8810	3.78187			

TABLE 3: Statistical analysis of the post-test scores of the control and experimental group.

Group	N	M	SD	t	df	Significance (two-tailed)
Control	40	12.1250	2.69080	−2.14	80	0.035
Experimental	42	13.5714	3.36512			

TABLE 4: Independent sample *t*-test result for males and females on post-test.

Group	N	M	SD	t	df	Significance (two-tailed)
Male	19	14.000	3.82	0.746	40	0.460
Female	23	13.217	2.96			

scores since the p-value is greater than 0.05. After administering the pretests, the students in the EG received explicit instruction on various RSs. Finally, the postreading comprehension test was given to both groups to see if the instruction had any contribution to the learners' reading ability in the EG. The result is presented in the following table.

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

The second reach question stressed if there was a statistically meaningful difference in reading comprehension performance between male and female students after the intervention. To answer this question, the postreading comprehension test results of male and female students in the EG were analyzed. The resulte is presented in Table 4.

As can be seen in Table 4, the postmean score of the male students ($M = 14.000$) was higher than the postmean score of the females ($M = 13.217$). From this result, it seems that male students benefited more from the training than female students. An independent sample test was performed to verify if there were significant differences between male and female students' postmean scores at the 0.05 significance level. However, the independent sample test analysis ($p = 0.460$) indicated that there was no significant difference between the two.

6.3. Discussion. The main purpose of the study was to investigate the effect of explicit strategy instruction on the reading comprehension performance of grade 11 students at Kokebe Tsibah Secondary School in Addis Ababa. Additionally, it

attempted to see whether male or female students performed better in reading comprehension after the training. Accordingly, a reading comprehension test was mainly used as a data collection tool. Data from the pre- and post-test were analyzed using descriptive and inferential statistical methods. The discussion is presented in the following section.

Before conducting the treatment, it was confirmed that both the EG and CG had almost similar reading comprehension performance result in the pretest. Conversely, after they learned various RSs explicitly, the students in the EG outperformed the CG in reading comprehension performance in the post-test. Statistical analyses between the postmean scores of EG ($M = 13.57$) and CG ($M = 12.12$) with independent sample t-test ($t = -2.143$, df $= 80$, $p = 0.035$) showed that there was a significant difference between the two groups in the post-test, indicating that strategy instruction had a positive impact on the students' reading skill. In other words, after they were exposed to explicit RSs instruction, students in the EG significantly improved their reading comprehension performance compared to the CG. Therefore, it is possible to say that explicit reading strategy instruction was important to improve the target students' reading comprehension performance.

The finding coincides with the belief that learning and RSs are teachable and learners can benefit from being trained in acquiring relevant strategies [16, 32, 35, 60]. The finding is consistent with findings of previous local studies, Getachew et al. [6], Dugasa et al. [12], and Yadetta et al. [27] who confirmed the effectiveness of strategy training on increasing learners' reading abilities. However, the previous local studies showed the contribution of strategy instruction to learners' reading improvement by focusing only a few strategies, but Grabe [1] recommended the need for more research on multiple-reading strategy instruction in L2 settings. Therefore, unlike the previous studies, the current research implemented a combination of various strategies of all strategy categories. The result of the current study is also consistent

with the results of previous studies [13, 15, 41, 42] conducted abroad.

Furthermore, the findings of the current study indicated that both male and female students in the EG had nearly similar reading performances after the treatment. The post-mean score of the male students was better than the post-mean score of the female students after the treatment. However, independent sample test analysis ($p = 0.460$) indicated that there was no significant difference between the two groups in their post-test mean scores. It can be noticed that though there was no significant difference between male and female students' reading comprehension performance after strategy instruction, male students seemed more benefited from the training compared to females. This result is in contrast to the study conducted by Karizak and Khojasteh [61].

7. Conclusion, Limitations, and Recommendations

Based on the results, it can be deduced that explicit instruction of various RSs is effective in improving EFL learners' reading comprehension. This is because after students were explicitly taught a combination of strategies (memory, cognitive, compensation, metacognitive, social, and affective) students in the EG performed better in reading comprehension compared to students in the CG. Therefore, teacher scaffolding (necessary support from the teacher) in strategy training and students' interaction are vital until students become independent readers. On the other hand, there was no significant difference between male and female students in their postreading test scores after the intervention. Finally, it was concluded that students' reading comprehension can be enhanced if they are exposed to various RSs instruction.

However, the study has some limitations that could be considered by future researchers. For example, the current study reported that both males and females benefited from the training; however, a significant difference was not found between males' and females' postreading test mean scores. One possible reason for such a result could have been the small sample size (19 males and 23 females). In fact, there have been inconsistencies in results about strategy training and gender. According to Karizak and Khojasteh [61], while some researchers found no significant differences between male and female students in reading ability or RSU after RSs training, other studies found that women outperform males at one time and males did better at other times. They also underlined that there are "gender-oriented texts" which are yardsticks for males' and females' choice of learning strategies. In other words, males' and females' choice of RSs during reading depends on the type of text they prefer. However, in our study, we did not check whether the reading passages used during the treatment were neutral to both groups (males and females). This is also one of the weaknesses of the current study that need further investigation by future researchers.

Furthermore, the study employed a quasi-experiment design which is suspected to internal validity threats. Although attempts were made to control such threats, still, future researchers could consider using random assignment to control for potential threats to internal validity which were not addressed in the current study. Hence, while quasi-experimental designs can be useful in some cases, alternative research designs, such as randomized controlled trials or mixed-methods designs, could be considered in future studies. Moreover, although an attempt was made to control the potential threats to external validity, for example, using reading passages from the grade 11 textbook, there may be other factors that could limit the generalizability of the results. Therefore, future studies could consider addressing potential threats to external validity by using different reading materials and conducting the study in different contexts. It is also difficult to generalize the results of the study to other similar situations due to the limited sample size and short duration of the treatment. Therefore, future researchers may enlarge the sample size to minimize threats to the external validity of the study. It is suggested that future researchers could investigate the long-term training on the effectiveness of explicit strategy instruction on reading comprehension or other language skills such as writing or listening to have a more comprehensive understanding of the effectiveness of the strategy training. Affective variables such as motivation and self-efficacy could be also included in future studies in order to have a comprehensive understanding. There were also practical challenges regarding the implementation of explicit RSs instruction. The major problem was related to time. Determining the amount of time is among the first steps for the successful implementation of strategy training [35]. Although the contents in the teaching manual were fully covered during the training, it is less likely to be sure that all the selected RSs were successfully and properly practiced in the 2 months duration of the training. The other drawback of this study could be the incompleteness of the observation session, all the teaching sessions were not fully observed. In our occasional observation, we noticed that the students were motivated and involved in the different tasks they were assigned. Hence, we realized that the findings would be more credible if the entire teaching sessions were observed. Therefore, for a comprehensive understanding of the effectiveness of explicit strategy instruction on students' reading comprehension performance, researchers in the future could consider all the limitations acknowledged by the current researchers.

Despite such limitations, the current study contributed to the existing literature that teaching students multiple RSs explicitly can improve their reading ability. Relying on these results, it is recommended that teachers in Ethiopian secondary school could consider incorporating explicit instruction of different RSs when they teach reading skills and encourage their students to employ RSs in different reading activities. This in turn helps students to become independent readers of EFL texts. EFL teachers need to be informed about the benefit of explicit strategy instruction. It is also important if policy-makers and syllabus designers consider integrating various RSs into the national curriculum to help students to tackle reading tasks. As a result, students will have an awareness of what strategies are, why, when, and how to use them to assist their reading difficulties.

Data Availability

The data used to support the findings of this study are available upon request from the corresponding author.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

Acknowledgments

Supplementary Materials

Supplementary 1. Reading strategy training material.

Supplementary 2. Instructor check sheet for experimental fidelity.

Supplementary 3. Reading comprehension test.

References

[1] W. Grabe, *Reading in a Second Language: Moving from Theory to Practice*, Cambridge University Press, 2009.

[2] W. Grabe and F. L. Stoller, "Teaching and researching reading," in *Applied Linguistics in Action*, Routledge, New York, 3rd edition, 2019.

[3] M. Chinpakdee and P. Y. Gu, "The impact of explicit strategy instruction on EFL secondary school learners' reading," *Language Teaching Research*, Article ID 136216882199415, 2021.

[4] H.-J. Shen, "The role of explicit instruction in ESL/EFL reading," *Foreign Language Annals*, vol. 36, no. 3, pp. 424–433, 2003.

[5] Ministry of Education (MoE), *English Language Position Paper*, Addis Ababa, Ethiopia, 2020.

[6] R. Getachew, T. Ferede, and A. Negash, "The effect of explicit reading strategy training on students' reading comprehension achievement and reading self-efficacy," *The Ethiopian Journal of Social Sciences and Language Studies (EJSSLS)*, vol. 5, no. 1, pp. 3–20, 2018.

[7] E. Mulatu and T. Regassa, "Teaching reading skills in EFL classes: practice and procedures teachers use to help learners with low reading skills," *Cogent Education*, vol. 9, no. 1, Article ID 2093493, 2022.

[8] A. Yechalework, "*Reading strategy use: the case of high and low achievers at private high schools of KB academy grade nine and ten students,*" Unpublished M.A. thesis, Addis Ababa University, 2017.

[9] B. D. Sona, "*The effects of a cognitive foundation of learning to read on the reading skills of grade 3 learners Ethiopia,*" Ph.D. thesis, University of South Africa, Pretoria, 2018.

[10] Z. Straková, "Developing cognitive strategies in foreign language education," *Journal of Language and Cultural Education*, vol. 1, no. 1, pp. 37–50, 2013.

[11] P. Y. Gu, "Approaches to learning strategy instruction," in *Learning Strategy Instruction in the Language Classroom: Issues and Implementation*, pp. 22–37, Multilingual Matters, 2019.

[12] G. Dugasa, T. Olana, and S. Ali, "Effects of explicit reading strategy instruction on grade 9 students' achievement in reading comprehension," *Education Research International*, vol. 2022, Article ID 7872840, 13 pages, 2022.

[13] J. Fathi and M. Afzali, "The effect of second language reading strategy instruction on young Iranian EFL learners' reading comprehension," *International Journal of Instruction*, vol. 13, no. 1, pp. 475–488, 2020.

[14] H. Li, Z. Gan, S. O. Leung, and Z. An, "The impact of reading strategy instruction on reading comprehension, strategy use, motivation, and self-efficacy in Chinese University EFL students," *SAGE Open*, vol. 12, no. 1, Article ID 215824402210866, 2022.

[15] D. Yapp, R. de Graaff, and H. van den Bergh, "Effects of reading strategy instruction in English as a second language on students' academic reading comprehension," *Language Teaching Research*, Article ID 1362168820985236, 2021.

[16] Y. M. Al Raqqad, H. H. Ismail, and K. M. Al Raqqad, "The impact of reading strategies on EFL students: a research review," *International Journal of English Literature and Social Sciences (IJELS)*, vol. 4, no. 6, 2019.

[17] X. Jiang and W. Grabe, "Skills and strategies in foreign language reading," *La lectura en lengua extranjera*, pp. 2–31, 2011.

[18] F. Khellab, Ö. Demirel, and B. Mohammadzadeh, "Effect of teaching metacognitive reading strategies on reading comprehension of engineering students," *SAGE Open*, vol. 12, no. 4, Article ID 215824402211380, 2022.

[19] P. Manoli, M. Papadopoulou, and P. Metallidou, "Investigating the immediate and delayed effects of multiple-reading strategy instruction in primary EFL classrooms," *System*, vol. 56, pp. 54–65, 2016.

[20] H. Taheri, F. Sadighi, M. S. Bagheri, and M. Bavali, "Investigating the relationship between Iranian EFL learners' use of language learning strategies and foreign language skills achievement," *Cogent Arts & Humanities*, vol. 7, no. 1, Article ID 1710944, 2020.

[21] B. Abera, "The plasma-based instruction in Ethiopia: Utopia or Dystopia?" *Educational Research and Reviews*, vol. 8, no. 24, pp. 2325–2338, 2013.

[22] A. Damtew, "*Teaching reading skills in English as a foreign language through interactive classroom teaching versus plasma teaching with reference to grade ten students in Addis Ababa,*" Unpublished Ph.D. thesis, http://etd.aau.edu.et/handle/123456789/7068Addis Ababa University, , 2012.

[23] T. H. Makebo, M. M. Bachore, and Z. A. Ayele, "Investigating the correlation between students' reading fluency and comprehension," *Journal of Language Teaching and Research*, vol. 13, no. 2, pp. 229–242, 2022.

[24] S. Gashaye and D. D. Alem, "The practice of teaching reading comprehension in secondary schools: a case of Debre Markos Administrative Town," *Practice*, vol. 10, no. 22, 2019.

[25] C. Enyew and A. Yigzaw, "Effects of teacher scaffolding on students' reading comprehension," *Science, Technology and Arts Research Journal*, vol. 4, no. 2, pp. 263–271, 2015.

[26] F. Mulugeta, "Addis Ababa University students' strategy use in a reading-to-writing task," *The Ethiopian Journal of Education*, vol. 41, no. 1, pp. 75–111, 2021.

[27] B. Yadetta, T. Mereba, and A. Negash, "The effect of reading strategy training on students' academic reading achievement," *The Ethiopian Journal of Social Sciences and Language Studies (EJSSLS)*, vol. 4, no. 2, pp. 27–48, 2017.

[28] U. Maeng, "The effectiveness of reading strategy instruction: a meta-analysis," *English Teaching*, vol. 69, no. 3, 2014.

[29] L. Plonsky, "The effectiveness of second language strategy instruction: a meta-analysis," *Language Learning*, vol. 61, no. 4, pp. 993–1038, 2011.

[30] R. L. Oxford and J. A. Burry-Stock, "Assessing the use of language learning strategies worldwide with the ESL/EFL version of the strategy inventory for language learning (SILL)," *System*, vol. 23, no. 1, pp. 1–23, 1995.

[31] S.-F. Tseng, "Language learning strategies in foreign language education," *WHAMPOA-An Interdisciplinary Journal*, vol. 49, pp. 321–328, 2005.

[32] J. Rubin, "What the "good language learner" can teach us," *TESOL Quarterly*, vol. 9, no. 1, pp. 41–51, 1975.

[33] L. Plonsky, "Second-language strategy instruction: where do we go from here," *Situated Strategy Use (SSU3)*, 2019.

[34] A. Habók and A. Magyar, "The effects of EFL reading comprehension and certain learning-related factors on EFL learners' reading strategy use," *Cogent Education*, vol. 6, no. 1, Article ID 1616522, 2019.

[35] R. Oxford, *Language Learning Strategies What Every Teacher Should Know*, Heinle & heinle Publishers, 1990.

[36] K. Mokhtari and R. Sheorey, "Measuring ESL students' awareness of reading strategies," *Journal of Developmental Education*, vol. 25, no. 3, pp. 2–11, 2002.

[37] J. M. O'malley and A. U. Chamot, *Learning Strategies in Second Language Acquisition*, Cambridge University Press, 1990.

[38] P. Afflerbach, P. D. Pearson, and S. G. Paris, "Clarifying differences between reading skills and reading strategies," *The Reading Teacher*, vol. 61, no. 5, pp. 364–373, 2008.

[39] A. U. Chamot and J. M. O'Malley, "The cognitive academic language learning approach: a model for linguistically diverse classrooms," *The Elementary School Journal*, vol. 96, no. 3, pp. 259–273, 1996.

[40] A. U. Chamot and J. Robbins, "The CALLA model: strategies for ELL student success," in *Workshop for Region*, 2005.

[41] L. J. Zhang, "Constructivist pedagogy in strategic reading instruction: exploring pathways to learner development in the English as a second language (ESL) classroom," *Instructional Science*, vol. 36, no. 2, pp. 89–116, 2008.

[42] S. Wichadee, "The effects of metacognitive strategy instruction on EFL Thai students reading comprehension ability," *Journal of College Teaching & Learning (TLC)*, vol. 8, no. 5, pp. 31–40, 2011.

[43] E. Macaro, "Strategies for language learning and for language use: revising the theoretical framework," *The Modern Language Journal*, vol. 90, no. 3, pp. 320–337, 2006.

[44] P. A. Alexander and E. Fox, "A historical perspective on reading research and practice," *Theoretical Models and Processes of Reading*, vol. 5, pp. 33–68, 2004.

[45] J. A. Dole, "Explicit and implicit instruction in comprehension," in *Reading for Meaning: Fostering Comprehension in the Middle Grades*, pp. 52–69, Teachers College Press, 2000.

[46] R. Ghafar Samar and M. Dehqan, "Sociocultural theory and reading comprehension: the scaffolding of readers in an EFL context," *International Journal of Research Studies in Language Learning*, vol. 2, no. 3, pp. 67–80, 2013.

[47] T. F. Metaferia, "*A study of independent reading in English as a foreign language (EFL) in Ethiopian schools*," Ph.D. thesis-University of South Africa, 2016.

[48] L. S. Vygotsky and M. Cole, *Mind in Society: Development of Higher Psychological Processes*, Harvard University Press, 1978.

[49] K. F. Clark and M. F. Graves, "Scaffolding students' comprehension of text," *The Reading Teacher*, vol. 58, no. 6, pp. 570–580, 2005.

[50] A. A. M. S. Salem, "Scaffolding reading comprehension skills," *English Language Teaching*, vol. 10, no. 1, pp. 97–111, 2017.

[51] Y. N. Bogale, "Conceptualizing reading to learn: strategy instruction and EFL students' reading comprehension," *International Journal of Curriculum and Instruction*, vol. 10, no. 2, pp. 93–117, 2018.

[52] M. R. Ahmadi and A. P. Gilakjani, "Reciprocal teaching strategies and their impacts on English reading comprehension," *Theory & Practice in Language Studies*, vol. 2, no. 10, pp. 2053–2060, 2012.

[53] M. Ameri, "Criticism of the sociocultural theory," *Budapest International Research and Critics Institute-Journal (BIRCI-Journal)*, vol. 3, pp. 1530–1540, 2020.

[54] J. W. Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, SAGE Publications, Thousand Oaks, CA, 4th edition, 2014.

[55] L. Cohen, L. Manion, and K. Morrison, *Research Methods in Education*, Routledge, London; New York, 8th edition, 2018.

[56] M. Seid, "*Effects of cooperative learning on reading comprehension achievement in EFL and social skills of grade 10 students*," Unpublished Ph.D. thesis, Addis Ababa University, Addis Ababa, 2012.

[57] R. Brown, "Comprehension strategies instruction for learners of English: where we have been, where we are now, where we still might go," in *Handbook of Research on Reading Comprehension*, pp. 543–567, Guilfold Press, 2017.

[58] A. R. Barrios Núñez, "*Explicit reading strategies instruction for the improvement of reading skills of 11 grade learners*," Master's thesis, Universidad del Norte, 2018.

[59] J. O'Dwyer, E. Kantarcıoğlu, and C. Thomas, "An investigation of the predictive validity of the TOEFL iBT® test at an English-medium university in Turkey," *ETS Research Report Series*, vol. 2018, no. 1, pp. 1–13, 2018.

[60] D. Larsen-Freeman, "Second language acquisition research: staking out the territory," *TESOL Quarterly*, vol. 25, no. 2, pp. 315–350, 1991.

[61] A. F. Karizak and L. Khojasteh, "The effect of three kinds of reading strategies on EFL learners' reading comprehension and gender difference using think-aloud protocol," *International Journal of Applied Linguistics and English Literature*, vol. 5, no. 5, pp. 6–14, 2016.