

Effects of Strategy-Based Instruction on Vietnamese EFL College Students' Reading Comprehension: A Mixed Method Approach

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ABSTRACT

Keywords: strategy-based instruction, reading comprehension.

Few studies have been quite successful in examining how Strategy-Based Instruction affects students' reading comprehension. However, these studies have only looked at specific reading strategies, like cognitive or metacognitive strategies, and have not used a reading instructions model to look at all phases of pre-, while-, or post-reading. To evaluate the impact of SBI, particularly the reading framework model Cognitive Academic Language Learning Approach, on EFL college students' reading comprehension, sixty EFL students at Hau Giang Community College participated. A mixed-methods approach with tests and semi-structured interviews was used. The conventional approach was used to teach reading to the Control Group, whereas SBI was used for the Experimental Group. The results show that SBI significantly improved the reading comprehension of EFL students. They also have the drive and self-assurance to develop into proficient readers on their own. Therefore, it is suggested that English reading comprehension be taught more widely using SBI.

Introduction

Without a doubt, English is becoming more and more important in Vietnamese culture nowadays. The nation's educational resources are severely strained by the widespread desire to use English as an international language. English instruction and study have become crucial since the government introduced an open-door policy to promote foreign business and cooperation. English is also commonly used as a powerful language for international communication. It is the vernacular of business, science, technology, travel, athletics, music, and numerous other fields. In order to satisfy the needs of students at all educational levels, the Ministry of Education and Training's National Foreign Languages Project has highlighted the urgent need to enhance the quality of language instruction and learning English as a foreign language (EFL) (Ministry of Education and Training, 2008).

The four skills of listening, speaking, reading, and writing are interconnected and must be mastered by students in order to learn English. Reading is important because it gives knowledge of the target language and helps the student improve other language skills. According to Nunan (2003), reading is a fluid activity in which readers build meaning by fusing information from a text with what they already know. In addition to having a vast vocabulary and knowledge of grammar rules, they also need to be well-versed in the reading strategies employed to become competent and talented readers (Liu, 2013). However, most readers only use strategies for reading on the spur of the moment when they are reading (Pritchard, 1990). Therefore, in order to succeed in their four years of university study and career, EFL students must equip themselves with appropriate English reading skills (Zare, 2007).

Reading is a fundamental ability for learning English since it allows students to communicate and expand their knowledge more rapidly and efficiently. Teachers in Vietnam continue to use traditional lecturing and memorization-oriented training; students at all educational levels have had minimal exposure to recognizing main ideas, finding details, and drawing conclusions (Huan, 2013). In particular, in the researchers' school, students continue to struggle with vocabulary, memory recall, comprehension of text coherence, and improper reading practices. As a result, they become weary and bored with learning in a reading class. The truth is that even with all of their effort and dedication, they still receive extremely poor results on reading assessments. According to Nguyen (2022), to encourage better involvement in learning reading, teachers should use reading comprehension teaching strategies tailored to each student's aptitude and personality. Moreover, Mehrdad et al. (2012) demonstrate that inexperienced readers can develop into proficient ones if given instruction in efficient reading techniques.

To help readers expand their knowledge, guiding them while establishing appropriate reading methods is crucial. SBI promotes an approach that enables students to comprehend both what they can read in class and how to read it more efficiently. It is crucial to language acquisition, and the impact of teaching reading methods on students' reading comprehension in EFL classes at a university is still an emerging area that needs further research. Regretfully, not much research has been done on how the SBI affects EFL college students' reading comprehension. Furthermore, previous studies have mostly concentrated on certain reading strategies, cognitive or metacognitive strategies of using a reading instruction model to assess all phases of pre-, during-, and post-reading. As a result, the current investigation seeks to answer both of the questions that follow:

- (1) How does the SBI affect EFL college students' reading comprehension?
- (2) What are students' attitudes towards the SBI on EFL college students' reading comprehension?

From there, it aids educators in developing efficient lesson plans and enhancing students' reading comprehension abilities.

Literature Review

Strategy-based instruction

Reading methods can assist learners in reading more efficiently. They are also viewed as conscious methods of understanding the author's meaning (Olshavsky, 1976) or strategies for overcoming difficulties in meaning construction (Duffy, 1993). Both authors propose that reading methods can assist readers in overcoming issues with meaning production and comprehension. Furthermore, they underline the significance of approaching a reading assignment with a plan or strategy in place, which can help readers reach their goals more efficiently (Bimmel et al., 2001). Reading strategies can be described as the cognitive processes or comprehension techniques that readers choose and utilize to comprehend and derive meaning from the material they are reading (Abbott, 2006).

O'Malley and Chamot (1990) proposed a model for dividing learning processes into three types: metacognitive, cognitive, and social/affective. Metacognitive methods like gist reading, skimming, and scanning form the foundation for task prediction, planning, and evaluation. Furthermore, cognitive methods such as classifying, taking notes, building on previous information, summarizing, and inferencing improve individual tasks. Social/affective tactics such as clarifying questions, cooperating, and self-talk engage other learners and group projects to facilitate effective learning. Furthermore, Chamot and O'Malley (1994) emphasize that developing reading abilities requires concentration, particularly in an academic setting, and that learning and reading strategies can help learners achieve this.

According to Sementin and Maniam (2015), employing metacognitive approaches allows language teachers to comprehend the diverse reading styles of their students and identify the most effective methods for teaching reading in the language classroom, based on Chamot and O'Malley's thesis. In essence, these approaches link cognitive reading strategies to specific learning tasks, integrating them into the learning process. Techniques such as rereading, scanning, analysis, summarization, and utilizing the first language for idea formation support and motivate students to comprehend the reading material. Grabe and Stoller (2002) emphasize the undeniable importance of learners' self-perceptions, feelings about reading, interest in specific topics, and eagerness to engage with texts and acquire knowledge in their educational environment, particularly when addressing the influence of socio-affective factors on reading development.

The term Strategy-Based Instruction (SBI) refers to classroom activities in which language learning approaches are integrated into language teaching by the instructor (Chamot et al., 1999). This instructional approach is learner-centered and involves the explicit teaching of reading skills. In SBI, learners are introduced to specific processes, learn the reasons for using each method, observe the teacher demonstrating the techniques, and are provided with opportunities to practice these tactics (Cohen et al., 1996). This approach focuses on teaching learners how to effectively employ various reading strategies to become proficient strategic readers (Akkakoson, 2013; Block & Pressley, 2002). According to O'Malley et al. (1985), a research report identified effective learning techniques for learners, demonstrating that explicit instruction in the use of these strategies significantly enhanced student performance.

Reading comprehension

Anderson (1985) defined reading as "the process of constructing meaning from written texts." It is a complicated ability that necessitates the coordination of several interconnected sources of information" (p. 7). Grabe and Stoller (2013) define reading as the ability to extract meaning from written text and successfully interpret it. To recap, reading entails analyzing a text and getting as much information as possible from it.

Comprehending written texts is crucial for both the instruction and acquisition of reading skills. As stated by Grellet (1981), "comprehending a written text involves extracting the necessary information from it as efficiently as possible" (p. 3). Grellet emphasizes the reader's capacity to derive meaning from a text by utilizing their prior knowledge. Van Dijk and Kintsch (1983) propose a method of deriving meaning from a text by understanding the text as a whole rather than isolating meaning from individual words or phrases. Reading comprehension, therefore, is the process of constructing a mental representation of a text's meaning that aligns with the readers' existing knowledge.

Factors Affecting Reading Comprehension

Several factors impact children's reading comprehension abilities. Among these factors are their reading attitudes, relevant education on comprehension approaches, flexibility, text shape, and understanding of various reading comprehension tactics. Other features include linguistic expertise, previous experience, metacognitive information, and reading processes (Koda, 2007). There are several causes of children's reading problems. Their understanding is typically hampered by a lack of vocabulary knowledge, poor fluency, unfamiliarity with the subject matter, text-level readability, and insufficient use of excellent reading practices (Westwood, 2008). The adults lack confidence and make limited progress because their English background is not enough (Nguyen & Nguyen, 2024). According to Meniado (2016), text structure susceptibility, inference formation, and comprehension checks are all factors that influence students' reading comprehension ability.

However, several factors impact college students' reading comprehension, including a lack of vocabulary knowledge, challenges in recalling prior information, difficulties in grasping the cohesiveness of texts, and the adoption of incorrect reading practices. Firstly, a grasp of vocabulary is essential for interpreting intricate reading materials like textbooks, especially those containing technical terms (Carlisle, 2000; Qian, 2002). Addressing the influence of prior knowledge on reading comprehension, Nguyen (2007) highlighted that students with prior knowledge might comprehend content more easily, but when faced with unexpected readings, they struggle and have to read texts multiple times to fully understand them. The third factor, text cohesiveness, involves elements such as coordinating conjunctions, prepositional phrases, participial phrases, and nominalizations, making the writing more complex and challenging to comprehend (Anderson & Freebody, 1983; Nuttall, 2000). Lastly, inappropriate reading strategies contribute to reading difficulties, as poor readers approach various texts in the same way without actively seeking to learn through their reading practices, as Golinkoff (1975) noted. The research suggests that explicit training in foreign language reading approaches should be incorporated to address these challenges.

The benefits of strategy-based instruction teaching in students' reading comprehension

Effective EFL readers employ reading strategies to overcome their reading limitations and the constraints of their language proficiency when comprehending a text (Yang, 2006). Additionally, the utilization of reading comprehension tactics aids readers in concentrating on contextual information to enhance their understanding as they engage with the text. The enhancement of reading strategies is facilitated by qualities such as control, effective decision-making, and adaptability, fostering self-efficacy derived from both skill and effort. Readers who employ strategic approaches feel confident in their ability to monitor and enhance their reading skills, providing them with both the information and motivation needed for success (Afflerbach et al., 2008). As a result, the dual emphasis on explicit strategy training is reflected in comprehension. Reading instruction can follow a constant cycle of modeling, explaining, and directing (all of which are SBI features), leading to autonomous practice and fluency. It demonstrates that SBI can help L2 learners become more effective by teaching them reading skills that enhance their reading comprehension (Afflerbach et al., 2008).

Procedure for applying strategy-based instruction to teach reading

The Cognitive Academic Language Learning Approach (CALLA) was inspired by Chamot and O'Malley's interest in the research of L2 learning approaches. As students become more strategic in their approach to learning, they also become more independent and less dependent on the instructor. The CALLA has three major components: content subjects, academic language improvement, and direct instruction of procedures for learning (Chamot & O'Malley, 1994). Preparation, Presentation, Practice, Evaluation, and Expansion Activities are the five steps of each CALLA lesson. Because the CALLA paradigm is recursive rather than linear, teachers and students can always return to previous educational phases as needed (Chamot, 2005).

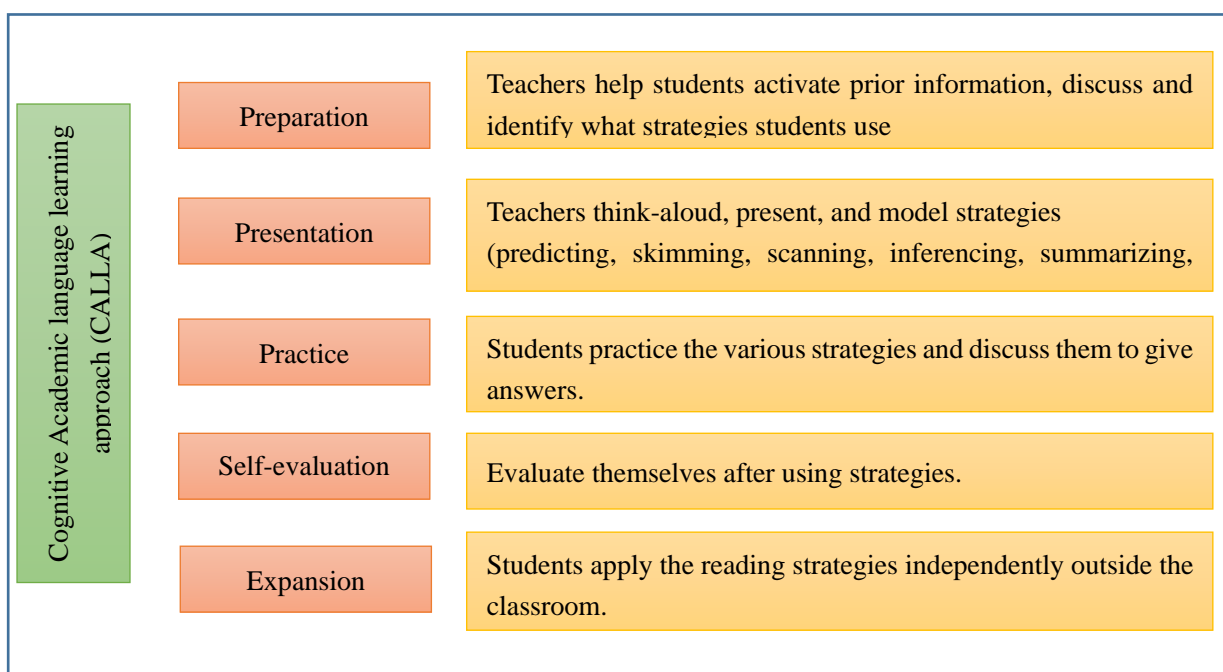
According to Chamot and O'Malley (1987), a CALLA lesson plan model consists of five stages of a reading lesson. To begin, during the preparation, the teacher assists students in activating prior information through group discussions on reading strategies. Learners articulate their thoughts regarding the reading techniques they plan to employ. Subsequently, the teacher vocalizes their thought process during the presentation while displaying a text on an overhead projector. Throughout the session, the teacher exemplifies the use of various techniques, including previewing, predicting content based on subtitles, leveraging photos to activate conceptual understanding of headings, giving special attention to subjects and highlighted material, self-evaluating comprehension, outlining how to identify the main idea, providing additional details, and organizing information to assess individual achievement in text comprehension. Following this, the instructor may prompt students to reflect on the observed approaches, offering further clarification by naming each method and explaining how a specific strategy can be applied more effectively. This serves as a form of modeling for students, aiding them in envisioning themselves successfully completing a particular reading task.

Third, learners practice using the predicting, scanning, skimming, referring, and summarizing skills with reading assignments with the supervision of the teacher. The level of assistance required will be determined by students' understanding and ability with the tactics, and the

teacher must ensure that it is used correctly. Fourth, students review their results in a whole-class discussion throughout the self-evaluation to evaluate the effectiveness of the reading strategies and to absorb what has been taught. They will be prompted to actively record their findings in a learning journal in order to handle and broaden their knowledge and use of reading skills.

In the final section of the expansion, students use what they have learned so far to apply newly acquired knowledge to new materials. When reading books outside the classroom, they can also use previously taught skills or create a special blend of reading techniques. When necessary, the teacher can provide scaffolding prompts to help students investigate various approaches for evaluating and comparing their work.

Figure 1. CALLA framework adapted from Chamot (2008)



Empirical studies

The effect of teaching cognitive reading strategies on the reading comprehension of EFL pupils at Hoa Minh Upper Secondary School in Tra Vinh Province, Vietnam, was examined by Huynh (2020). Seventy Hoa Minh Upper Secondary School students participated in this study; thirty-five were assigned to the experimental group (EG) and thirty-five to the control group (CG). While the CG received instruction through textbooks and conventional ways, the EG received instruction in cognitive reading skills. The students' excitement for learning to read, as well as their reading comprehension skills, were evaluated using reading comprehension exams and surveys. The results of the study showed that, in comparison to the CG, the EG's reading comprehension abilities and positive reading motivation greatly improved. In order to improve students' reading comprehension and maintain their interest in reading classes, the research strongly suggested that cognitive reading strategies be taught and applied.

Sukarni et al. (2017) studied the efficacy of strategy-based reading instruction in teaching

reading as well as students' perceptions of the implementation of reading instruction. The study was conducted with fifth-semester students at Universitas Muhammadiyah Purworejo's English Education Program. There were 63 pupils in this study, with 28 in the EG and 35 in the CG. The treatment consisted of 12 visits spread out over 12 weeks, each lasting 100 minutes. Two types of data collection equipment were tests and questionnaires. The findings of the study demonstrated that the student's reading skills increased. They discovered Strategy-based Reading Instruction to be advantageous and helpful in overcoming reading comprehension challenges.

Shorkae and Talebi (2018) conducted a study to examine the impact of teaching reading strategies on both reading performance and attitudes toward reading strategies while engaging with texts of varying difficulty levels. A total of fifty-five university students majoring in Political Science and Basic Sciences were randomly assigned to either the experimental group (N = 24) or the control group (N = 24). The experimental group underwent Reading Strategy Instruction (RSI) using the CALLA paradigm, while the control group received reading instruction emphasizing vocabulary and grammar. Data for this experimental investigation were collected through exams and questionnaires. Results revealed that the experimental group outperformed the control group in both reading assessments, demonstrating superior reading performance and more positive attitudes toward reading strategies. Notably, when students engaged with texts at an appropriate difficulty level, the effectiveness of Reading Strategy Instruction in improving both reading performance and attitudes toward reading strategies was significantly enhanced. The study suggested that selecting materials better suited to the reader's skill level rather than ones considerably above it could enhance cognitive and emotional functioning.

Chinpakdee and Gu (2021) assessed the influence of explicit method training on the reading skills of EFL secondary school students in Thai secondary schools. The study involved 30 students in the treatment group and 32 students in the control group. Results from pre-, post-, and delayed reading tests, along with think-aloud reading sessions, indicated a notable improvement in the reading test scores and reading methods of the students in the intervention class. According to group interviews, learners had a positive attitude about English reading and were more confident in their skills to handle the procedure of reading independently. According to the authors, explicit strategy instruction can help language students build crucial strategic abilities for processing English texts. It also discusses how SBI can be efficiently employed in language schools.

A few research investigations on the effects of SBI on students' reading comprehension have been undertaken in Vietnam. In addition, past research has primarily concentrated on certain reading strategies, such as cognitive or metacognitive strategies, rather than employing a reading instruction model to evaluate all stages of pre-reading, while-reading, and post-reading. As a result, this research aims to analyze the impact of SBI, specifically the reading framework model CALLA, on the reading comprehension of EFL college students.

Research Questions

The study's goal is to look into the impacts of SBI on EFL college students' reading comprehension as well as their views toward the effects of SBI. As a result, the study tries to answer the following two research questions:

1. To what extent does SBI affect EFL college students' reading comprehension?
2. What are students' attitudes towards SBI on EFL college students' reading comprehension?

Methods

Pedagogical Setting & Participants

The study was carried out at Hau Giang Community College, which is located in Vi Thanh City, Hau Giang Province, Vietnam. This institution is the only one in the area, with 195 instructors, five of whom are English specialists. They each have over ten years of expertise in schooling. Because they believe that Communicative Language Teaching is intended to teach listening or speaking abilities, their pedagogy focuses on content or traditional methods of teaching reading. There are three English courses, each with one to two classes of roughly 30 students, comprising both male and female students aged 18 to 21. The students use the "Interactions 2 Reading" textbook set (Hartmann & Kim, 2007), which is aligned with the school's authorized curriculum. In all classes, the college provides modern teaching aids such as projectors and laptop computers.

Based on convenience sampling, 60 second-year students from two classes of English course 16 at HGCC were chosen to participate in this study (Fraenkel et al., 2012). The two classes were chosen because they shared demographic characteristics such as gender, age, and English level. Furthermore, the majority of participants were from Hau Giang province and had studied English in high school for seven years. In general, their backgrounds were not very different. The individuals in this sample were separated into two groups. The CG had 30 pupils, 8 (27%) of whom were males and 22 (73%) were females, while the EG had 30 students, 7 (23%) of whom were males and 23 (77%) were females. Their ages varied from 18 to 21.

Design of the Study

This study employed a mixed-methods research approach, incorporating both qualitative and quantitative research methodologies. According to Fraenkel et al. (2012), this strategy entails gathering and analyzing both types of data. Quantitative data was utilized to establish general conclusions about the sample group, whereas qualitative data gave more comprehensive explanations for the quantitative results (Creswell, 2003). The design of this study was quasi-experimental, which implies that the participants were not picked at random, but other strategies (such as a pre-test and CG) were used to exert some control over extraneous factors (Ary et al., 2018).

Data was gathered using a pre-test, post-test, and interviews. The data was gathered in accordance with the experimental teaching's two stages: students' reading comprehension before and after the use of SBI was investigated through the administration of pre- and post-

tests, and their attitudes regarding SBI were disclosed through interviews.

The 14-week quasi-experimental study began in the first month of the fourth semester of the school year 2022-2023 in the English course of intake 16 and consisted of 5 reading lessons on various topics. Every week, the researcher got one lecture. Each lesson was 60 minutes long.

The pedagogies for teaching a reading text must be examined to perceive the variations and similarities in the CG and EG teaching procedures. The traditional method was used to teach students in the CG. It signifies that the teacher instructs students to complete textbook assignments. The CALLA framework paradigm was employed by the EG teacher. The reading skills were clearly taught, discussed, and imitated. She talked about tactics with the learners to help them understand the effects of techniques on their successful learning, confidence, and motivation. Students were given the opportunity to practice and self-assess their reading skills. They developed their own individual set of reading approaches and applied them in similar situations and reading courses. This enables individuals to have sufficient competence to utilize strategies autonomously, as well as the self-regulated capacity to take responsibility for their own reading.

Table 1.

Teaching process of the EG and CG

Control group	Experimental group
<i>Pre-reading</i> - Stimulating students' knowledge based on the reading title - Teaching vocabulary and some grammar structures	<i>Preparation</i> - Discussing with students the reading strategies to identify the strategies
	<i>Presentation</i> - Using the "think-aloud" technique to introduce, explain, and model the five reading strategies of predicting, scanning, skimming, inferencing, and summarizing - Asking students to reflect on the techniques they witnessed.
<i>While-reading</i> - Asking students to do tasks in groups - Giving feedback to the comprehension questions.	<i>Practice</i> - Asking students to practice in group work with peers utilizing the five strategies
<i>Post-reading</i> - Asking students to summarize the reading - Giving feedback to the comprehension questions	<i>Self-evaluation</i> - Asking students to work in groups for self-evaluation
	<i>Expansion</i> - Students employ reading techniques taught earlier or create their own distinct blend of reading strategies when reading books independently outside the classroom.

Data collection & analysis

Tests

Tests are vital tools to assess educational studies (Ary et al., 2018). They are a set of methods, processes, or things that require performance from the examinee (Bachman & Palmer, 1996). To assess students' achievement, a pre- and post-test of reading comprehension was adapted from the teacher's book. The pre- and post-test themes were associated with the reading passages in the students' textbook "Interaction 2 Reading." Students at the low intermediate level took the pre- and post-test. The reading assessments were divided into five sections, each with 25 questions to assess their ability to predict, skim, scan, infer, and summarize. The post-test followed the same pattern as the pre-test and was based on the test in the teacher's book.

The researchers adopted the classification of students' reading ability from the Classification of Student Achievement (Arikunto, 2009, p. 245).

Table 2.

Classification of student achievement

Score	Grade	Level
80-100	A	Excellent
66-79	B	Good
56-65	C	Sufficient
40-55	D	Fairly-sufficient
30-39	E	Low

The researchers evaluated the data gathered from the students through a reading test using a sequential process. Initially, individual scores were categorized into excellent, good, sufficient, pretty sufficient, and low. Subsequently, the data was analyzed using SPSS 25.0, a statistical software for social science research. The frequency and percentage tests were then applied to identify any notable variations in the descriptive analysis. Finally, an independent samples t-test was conducted on the total scores of the students to ascertain whether a statistically significant difference existed in the overall mean score between the two groups in the pre- and post-tests.

Interviews

The interview is a conversation between a person and an interviewer with the objective of gathering information and equally influencing each other (Cohen & Manion, 1994). A semi-structured interview was used to obtain qualitative data for this study. Six EG students were chosen at random for the interviews. The real interviews were done after the post-test, in a quiet and isolated environment such as the after-school classroom. Each interview lasted 25 to 35 minutes. The interviews were taped with the permission of the interviewees. Most significantly, all interviewees and their responses were kept completely confidential.

The transcripts of all interviews were translated into English, comprehensively reviewed, and categorized using thematic analysis following Boyatzis' (1998) methodology. Subsequently,

participants' responses were organized into themes based on similarities and differences, facilitating the assessment of their perspectives on the influence of SBI on reading comprehension

Findings

Findings from the tests

Pre-Tests

The data for CG's and EG's reading tests were generated from the pre-test results prior to therapy. The following tables indicate the frequency and percentage of mean scores for each group.

Table 3.

Frequency and percentage of CG's and EG's pre-test score

Interval	Interpretation	Grade	CG		EG	
			Frequency	Percentage (%)	Frequency	Percentage (%)
80-100	Excellent	A	3	10 %	4	13.3%
66-79	Good	B	17	56.7%	14	46.7%
56-65	Sufficient	C	9	30%	7	23.3%
40-55	Fairly Sufficient	D	1	3.3%	5	16.7%
Total			30	100%	30	100%

Table 3 displays the pre-test scores of 60 CG and EG students. The excellent group included 3 students from CG and 4 students from EG. The good group consisted of 17 CG pupils and 14 EG students. In the sufficient group, there were 9 students in CG and 7 others in EG, one student in CG and 5 others in EG in the reasonably sufficient group, and none in the low group.

According to the data above, the number of CG pupils was equivalent to EG in the excellent category, greater in the good and sufficient groups, and lower in the moderately sufficient group.

Table 4.

Descriptive statistics of pre-test in CG and EG

	N	Minimum	Maximum	Mean	Std. Deviation
CG	30	50.00	80.00	66.00	6.91
EG	30	50.00	80.00	65.70	9.35

Table 4 demonstrates that CG's and EG's scores are the same, with a minimum of 50 and a maximum of 80. CG has a mean score of 66.00, whereas EG has a score of 65.70. As a result, the scores of both groups were comparable.

The researchers employed Independent samples t-tests to investigate the reading comprehension levels of the two groups at the start of the study. The findings of the CG and EG between-tests (see Table 5) revealed that students' reading comprehension was similar at the time of the pre-test.

Table 5.

Independent samples t-test of pre-test

	Group	N	M	SD	<i>t</i>	<i>df</i>	<i>p</i>
Pre-test	EG	30	65.70	9.35	.158	58	.875
	CG	30	66.00	6.91			

Table 5 shows that the CG students scored slightly higher in the pre-test than the EG students (Mean = 65.7 vs. Mean = 66.0, respectively), but the EG ($t = .158, p = .875 > .05$) stated that the average score of these two groups did not differ. This indicated that the students' prior reading capacity in both groups was not different. The students' reading comprehension was rated equivalent. Thus, if there was a difference in reading comprehension between the two groups after the trial, the effects of SBI on the dependent variable in this study may be predicted.

Post-test

After the treatment, the data for the CG and EG tests were gathered. The tables below indicate each category's frequency and percentage of mean scores.

Table 6.

Frequency and percentage of CG's and EG's post-test score

Interval	Interpretation	Grade	CG		EG	
			Frequency	Percentage	Frequency	Percentage
80-100	Excellent	A	5	16.7	14	46.7
66-79	Good	B	19	63.3	15	50.0
56-65	Sufficient	C	5	16.7	1	3.3
40-55	Fairly Sufficient	D	1	3.3	0	0
Total			30	100	30	100

Table 6 shows the post-test outcomes for the two groups of students. 5 students in CG and 14 students in EG received exceptional grades. The good one had 19 students in CG and 15 students in EG. There were 5 students in CG and one in EG in the sufficient group, one in CG and none in EG in the pretty sufficient group, and none in the low group.

Table 7.

Descriptive statistics of post-test in CG and EG

	N	Minimum	Maximum	Mean	Std. Deviation
CG	30	50.00	80.00	68.67	7.30
EG	30	60.00	90.00	76.33	8.50

Table 7 reveals that the CG has a minimum score of 50 and a maximum score of 80, but the EG

has a minimum score of 60 and a maximum score of 80. CG has a lower mean score of 68.7 than EG, which is 76.3. As a result, the scores of both groups differed significantly.

On the post-test, an independent samples t-test was used to compare the mean scores of the two groups in terms of reading comprehension and to see if students in the EG improved more than those in the CG as a result of the SBI intervention. The results of this test are shown in the table below.

Table 8.

Independent samples t-test of post-test

	Group	N	M	SD	<i>t</i>	<i>df</i>	<i>p</i>
Post-test	EG	30	76.33	8.50	-3.75	58	.000
	CG	30	68.67	7.30			

Table 8 compares the students' post-test reading comprehension to their mean scores. In the post-test, pupils in the EG did better in reading comprehension than those in the CG. In particular, the EG received an average of 76.3 for reading comprehension, compared to 68.7 for the CG. Furthermore, $t = -3.75$, $p = .001 < .05$ revealed a significant effect with a bigger size to the immediate post-test in the EG as compared to the CG.

Based on the statistics, the researcher can conclude that the students in CG did not make significant progress in their reading comprehension after 14 weeks of instruction without the use of SBI.

Findings from the interviews

The interview data showed the students' attitudes toward the effects of SBI on EFL college students' reading comprehension. Three themes identified include students' understanding, beliefs, and application of SBI in reading comprehension.

Insights into students' understanding of the SBI and its importance in reading comprehension

The interview data analysis revealed that the six participating EFL college students held a variety of attitudes that represented their understandings of SBI as teachers' explicit instruction in reading.

Students' understanding of the SBI in reading comprehension

Specifically, five students who were interviewed understood SBI as a kind of support teachers provide to instruct how to use reading strategies explicitly.

Strategy-based instruction is a kind of support teachers provide to instruct how to use reading strategies explicitly. (S1, interview extract)

Through strategy-based instruction, strategies are taught clearly. (S2, interview extract)

Strategy-based instruction focuses on teaching students specific strategies to improve their reading comprehension. (S3, interview extract)

Strategy-based instruction is a teaching practice that shows students how to read the text

through reading strategies. (S6, interview extract)

One other student, however, was unsure about SBI. She only felt familiar with reading strategies.

I'm not sure I comprehend strategy-based instruction completely. I'm solely familiar with reading strategies. (S5, interview extract)

The importance of SBI in reading comprehension

When asked about the importance of SBI in reading comprehension, all six students shared that SBI encouraged students to actively engage with the different texts by using appropriate strategies. That helped them have effective reading, confidence, and motivation, and they also used reading strategies independently. Their views were illustrated in the following comments.

Through strategy-based instruction, reading strategies are taught, discussed, and modeled explicitly; so, I understand how, when, and why to use those strategies. They help me have effective reading, confidence, and motivation, and I can use these strategies independently. (SV1, interview extract)

It can help students to read more effectively and become independent readers. (S2, interview extract)

By explicitly teaching reading strategies, students can approach different texts and reading situations. They select and apply appropriate strategies based on the text's purpose, complexity, and comprehension goals. (S3, interview extract)

Strategy-based instruction encourages students to actively engage with the text by using specific strategies. Instead of passively reading, they learn to interact with the content, make connections, and make predictions. This active engagement enhances their comprehension and deepens their understanding of the text. (S4, interview extract)

Strategy-based instruction enhances students' ability to comprehend and analyze texts. Strategies such as summarizing, scanning, and Inferencing help students extract essential information, identify main ideas, and understand text structures. (S5, interview extract)

It can help me feel confident, and it's easy for me to understand the text. (S6, interview extract)

Insights into the beliefs of students about SBI in reading comprehension

SBI in reading comprehension was believed by EFL college students as an approach to overcome the difficulty in reading text and improve their comprehension.

Two of six participants said that SBI helped them to understand the text better.

Yes, I think students will understand the text better. (S2, interview extract)

I believe students can understand the text clearly. For example, they will use strategy-based instruction to identify the gist and specific details. (S5, interview extract)

Three of six participants said that SBI helped them become more proficient readers, which led to improved reading comprehension.

Yes, I believe that strategy-based instruction affects students' reading comprehension. Thanks to strategy-based instruction, I can overcome the difficulty in reading text, and I can improve my reading comprehension. (S1, interview extract)

Yes, I believe that by learning and applying specific strategies, students become more active and strategic readers, which leads to improved reading comprehension. (S4, interview extract)

Yes, I believe that strategy-based instruction effect students' reading comprehension and helps them become more proficient readers. (S6, interview extract)

One participant reported that she developed a set of reading strategies that can approach various texts and reading tasks through SBI.

Yes, I do. When students are explicitly taught reading strategies and provided with opportunities to practice and apply them, they develop a set of reading strategies that they can use to approach various texts and reading tasks. (S3, interview extract)

Insights into applying strategy-based instruction at reading comprehension to students

The interview data showed the difficulties and results of applying SBI in reading comprehension.

The difficulties of applying SBI in reading comprehension

When asked about difficulties in applying strategy-based instruction in reading, one student shared that there were some reading strategies were difficult to understand. She didn't understand these strategies clearly if the teacher didn't instruct explicitly about them.

Some reading strategies are difficult to understand. Students will never understand these strategies if no one instructs explicitly about them. So, it's a good idea to have the instruction in class. (S5, interview extract)

Another student felt confused about transferring the strategies from one context to another reading.

I feel confused about transferring the strategies I learn in one context to other reading tasks or subjects. (S6, interview extract)

Another participant have difficulties following the stages the teacher instructs at first, but she could use strategies independently after some lessons.

At first, I had difficulties following the stages the teacher instructed; however, I could use strategies independently and had the self-regulated capacity for my own reading after 5 lessons. (S4, interview extract)

In contrast to those, three other participants didn't have any difficulties in applying SBI in reading.

I don't have a lot of difficulties because I am taught clear reading strategies. (S1, interview extract)

I think I do it well. (S3, interview extract)

Results of applying SBI in reading comprehension

Upon inquiry regarding the outcomes of the implementation of SBI in the context of reading, five out of six participants expressed that, attributable to SBI, they experienced heightened confidence and motivation in effectively comprehending diverse texts. Furthermore, they demonstrated the ability to apply these strategies beyond the confines of the classroom.

Yes, I do. Applying strategy-based instruction makes me read fast and understand the texts. In addition, I become more confident and motivated when I read difficult texts, and I also can employ strategies independently. (S1, interview extract)

I think that I will become a strategic reader. I can use appropriate strategies, self-evaluation, and expansion of my own strategies catalog. (S2, interview extract)

I can follow all the stages that the teacher instructs. In addition, I can apply strategy-based instruction independently outside the class. (S3, interview extract)

I feel the reading is interesting. When I read the materials at home, I can use my own reading strategies to help me absorb the content quickly and thoroughly. (S4, interview extract)

Yes, I do. I think that strategy-based instruction affects how much a reader is engaged in the reading experience as well as how much rehearsal and practice a reader does to become an effective reader. (S6, interview extract)

One student reported that she knew how to read and comprehend various texts, but she was unsure if she could become an effective reader. She also needed the teacher's instruction in using SBI.

I know how to read and comprehend various texts; nonetheless, I do not consider myself an effective reader. I need the teacher's instruction. (S5, interview extract)

Discussion

Effects of SBI on EFL college students' reading comprehension

The finding derived from the data analysis indicates that learners who utilized the SBI for reading showed significant improvement in various aspects of reading comprehension, including guessing text contents, grasping the main ideas and details, making inferences, and summarizing. Prior to the intervention, both groups exhibited similar levels of reading comprehension, employing conventional methods like using dictionaries. Statistical analysis, specifically the independent samples t-test, indicated no significant difference in pre-test scores between the EG and CG, suggesting similar reading comprehension abilities.

After the intervention, the EG utilizing SBI displayed a higher average score in the post-test compared to the CG. This indicates that students who were adept at employing reading strategies like predicting, skimming, scanning, inferencing, and summarization achieved a more profound understanding of the texts. Statistical analysis revealed a noteworthy disparity in post-test scores between the EG and CG, suggesting that students in the EG, following the

implementation of SBI, outperformed their counterparts in terms of reading comprehension. The study underscores the positive and substantial impact of SBI in enhancing students' reading comprehension skills, particularly in the context of EFL learning, positioning SBI as a promising pedagogical approach for addressing challenges in reading comprehension.

The present study's conclusions align with Sukarni et al.'s (2017) empirical research, reinforcing the positive impact of SBI on reading comprehension. This consistency in findings suggests that the benefits of SBI may be applicable across diverse educational contexts. The research further strengthens the case for SBI's effectiveness by demonstrating its positive influence on the reading comprehension of EFL learners who autonomously manage their reading process. This aligns with Chinpakdee and Gu's (2021) findings, emphasizing that reading strategy instruction improves EFL learners' reading comprehension and confidence in reading independently. The consistent results underscore the robust relationship between SBI and enhanced reading comprehension in EFL settings, emphasizing the significance of integrating such instructional strategies to support language learners in developing superior reading skills.

Students' attitudes towards the effects of SBI

Students' understanding of the SBI and its importance in reading comprehension

The results obtained from interviews indicated that Strategy-Based Instruction (SBI) was perceived as valuable support provided by teachers to explicitly guide students on how to employ reading strategies for enhancing reading comprehension. Cohen et al. (1996) argue that strategy-based reading instruction involves teaching specific reading strategies, informing students about the procedures, providing reasons for utilizing the approach, demonstrating the techniques through instructor modeling, and offering opportunities for students to practice the strategies. This comprehensive approach facilitates students' understanding of texts, enabling them to evolve into proficient strategic readers (Akkakoson, 2013; Block & Pressley, 2002).

Regarding the significance of Strategy-Based Instruction (SBI) in reading comprehension, it was perceived as contributing to students' achievement in successful reading, bolstering their confidence and motivation, and fostering their ability to employ reading strategies autonomously. This observation aligns with prior research conducted by various scholars, such as Chinpakdee and Gu (2021), who assert that students exhibit a positive attitude toward English reading and feel more self-assured in managing their reading independently. Additionally, Huynh (2020) contends that SBI plays a role in generating positive motivation for reading.

According to Sukarni et al. (2017), the student's reading ability increases. Strategy-based reading instruction was deemed to be effective and practical in overcoming reading comprehension difficulties by the students. This was evident in the current study's findings, as teaching reading methods allows students to approach various texts and reading situations. They choose and use relevant strategies according to the purpose, complexity, and understanding goals of the material.

The beliefs of students about SBI in reading comprehension

The importance of students' self-perceptions, emotional attitudes toward reading, interest in specific subjects, and willingness to engage with texts and derive knowledge from them in the classroom learning setting is universally acknowledged, as noted by Grabe and Stoller (2002). This is evident in the current study where all of the students who took part believed that SBI may help them overcome the difficulties such as understanding the text better when reading material. This finding is congruent with the study of Yang (2006), who discovered that good EFL readers employ extra ways for comprehension in their reading; they use reading strategies to compensate for their reading deficiencies and restricted language abilities in comprehending a text and the study of Sukarni et al. (2017), who discovered that with strategy-based reading teaching, students can overcome difficulty in reading material and believe they can increase their reading comprehension.

Moreover, the students who took part in the study expressed the belief that SBI assisted them in cultivating a repertoire of reading strategies that can be applied to diverse texts, ultimately enhancing their reading comprehension. This observation aligns with the outcomes of earlier research conducted by Chinpakdee and Gu (2021), where it was found that students exhibit a positive attitude towards English reading and gain increased confidence in independently managing their reading process through the implementation of SBI.

Applying SBI to reading comprehension by students

According to the findings of the interviews, several of the participating students had no problems utilizing SBI because they were taught reading strategies. Through SBI, they had a sharper sense of strategy: what the concrete strategies are and how to organize and use them systematically and effectively.

Another point of view is that students were perplexed when transferring strategies from one context to another. This conclusion is consistent with the findings of Chamot and O'Malley (1987), who discovered that efficient transfer of strategies to other contexts needs students to be aware of the methods they are using and to be able to express the conditions under which strategies can be utilized. Additionally, one participating student didn't understand reading strategies clearly if the teacher didn't instruct explicitly about them. The result lines up with the findings of Chamot (2005), who suggests that the instructor should carry out the instruction as well as the language of instruction, particularly among beginner-level learners and in foreign language environments. This is especially true for low-proficiency students who have not had enough opportunity to use their strategies in a variety of situations and may find it difficult to transmit their knowledge successfully in the absence of clear instructions.

Concerning the results of using SBI in reading comprehension, the majority of participants stated that thanks to SBI, they felt more confident and motivated while reading diverse texts efficiently, which is consistent with the findings of research done by Chinpakdee and Gu (2021) and Huynh (2020) which found that SBI has a major effect on students' motivation. Furthermore, the students might employ relevant strategies, self-evaluation, and the expansion of their strategy catalog. They could even independently use strategies to improve their reading skills outside of class. Such a finding lends support to previous studies that SBI can help second

language learners become more effective by teaching them how to use reading strategies to better regulate their reading comprehension (Afflerbach et al., 2008).

However, one of the participants was doubtful whether she could become an efficient reader, but she could absorb diverse texts effectively. She also needs SBI training from the teacher. This is especially true for low-proficiency learners with limited prior knowledge. They will not be able to become strategic readers after only five lessons, and they will need additional time to practice implementing SBI.

Conclusion

The study found that learners who were taught with SBI had significantly improved reading comprehension. Before the treatment, students in both groups exhibited comparable reading comprehension levels, using traditional means such as dictionaries to understand words and completing reading activities. After the SBI intervention, however, students in EG had a higher mean post-test score than those in CG, showing a better knowledge of texts through competent use of methods such as predicting, skimming, scanning, inferencing, and summarizing. These findings supported prior research showing SBI is beneficial in improving reading comprehension among EFL learners. As a result, SBI is a beneficial and practical way to treat reading comprehension challenges and develop reading comprehension so that students can become independent or effective readers.

The study revealed valuable insights into EFL college students' attitudes toward the effects of SBI on reading comprehension. Most interviewees expressed a favorable cognitive attitude, emphasizing the positive impact of SBI on their reading comprehension by making their reading more effective, successful, and faster. Emotionally, students exhibited mixed feelings, with some showing confidence, motivation, and interest due to the specific comprehension strategies learned. Students with positive reading attitudes demonstrated improved reader behavior, confidently employing strategies like predicting, skimming, scanning, inferencing, and summarizing to enhance language comprehension. The research aligns with previous studies asserting that SBI positively influences students' attitudes, confidence, and motivation in reading. Additionally, SBI is found effective in overcoming reading comprehension difficulties, as students develop a repertoire of strategies tailored to diverse texts. The students expressed belief in SBI's ability to enhance understanding, which is consistent with the previous research emphasizing its positive impact on comprehension. However, challenges arise in transferring strategies between contexts, emphasizing the need for explicit instruction, especially for low-proficiency learners. While most participants report increased confidence and motivation through SBI, some require additional training for sustained improvement, highlighting the importance of continued practice for developing strategic readers.

Despite the fact that the study met its aims, the main problem was sample limitations. Because the study had a small sample size (30 students for each group, the EG, and the CG), there may be some challenges with generalization because there are only 60 students enrolled in the English course this year. Another issue is that the treatment duration was most likely insufficient to determine whether the improvement was consistent and sustained over a longer period of

time.

Future studies are suggested to investigate the SBI on EFL college students' reading comprehension in larger groups. Furthermore, the treatment period should be extended to determine whether or not the improvement is consistent.

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Biodata

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