

# Improving EFL Students' Reading Performance through Integrated Metacognitive and Pragmatic Instruction

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**Abstract:** This study investigates the effectiveness of an integrated metacognitive–pragmatic instructional approach in improving reading comprehension among English as a Foreign Language (EFL) learners. Although metacognitive strategy instruction and pragmatic awareness have been widely examined as separate components of EFL reading pedagogy, empirical evidence on their combined instructional impact remains limited, particularly in university contexts. To address this gap, the study employed a quasi-experimental mixed-methods design involving 60 undergraduate EFL students enrolled in a mandatory English course. Participants were assigned to an experimental group (n = 30), which received explicit instruction integrating metacognitive strategies (planning, monitoring, and evaluation) with pragmatic awareness (discourse markers, implicature, author stance, and contextual inference), and a control group (n = 30) that followed a conventional reading syllabus. Quantitative data were collected through pre- and post-reading comprehension tests, while qualitative data were obtained from reflective journals and classroom observations. Results indicated that the experimental group achieved significantly greater gains in reading comprehension than the control group ( $t(58) = 8.12, p < .001$ ), with a large effect size (Cohen's  $d = 2.01$ ). Qualitative findings revealed increased metacognitive regulation, greater sensitivity to discourse-level meaning, and more active interpretive reading behavior. These findings suggest that integrating metacognitive regulation with pragmatic awareness provides an effective framework for developing deeper reading comprehension in EFL contexts.

**Keywords:** Reading, Metacognitive Strategies, Pragmatics, Discourse Markers, EFL Learners.

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## I. INTRODUCTION

Reading proficiency in English as a Foreign Language (EFL) contexts remains a significant challenge for many learners and educators. Reading comprehension is widely recognized as a fundamental component of academic literacy, as it enables learners to interpret information, draw inferences, and engage critically with written texts. In university settings, EFL learners are often required to process complex academic materials, which demands not only lexical knowledge but also the ability to regulate comprehension and interpret discourse-level meaning.

Effective reading comprehension involves more than recognizing individual words and sentences; it requires integrating new information with prior knowledge, identifying relationships between ideas, and interpreting the broader context of a text. In EFL contexts, this process becomes particularly demanding because learners must

simultaneously manage linguistic processing and higher-level interpretive strategies.

Previous research has demonstrated the effectiveness of metacognitive strategy instruction in improving reading comprehension (Anderson, 2012; Baker & Brown, 1984), as well as the role of pragmatic competence in interpreting implied meaning and discourse structure (Carrell, 1983; Kasper & Rose, 2002). However, few empirical studies have examined the instructional impact of explicitly integrating metacognitive strategy instruction with pragmatic awareness in EFL reading pedagogy, particularly in university-level contexts. As a result, learners may develop strategic awareness without sufficient sensitivity to pragmatic cues, or vice versa.

The present study addresses this gap by investigating whether an instructional model that integrates metacognitive strategies with pragmatic awareness can more effectively

enhance EFL learners' reading comprehension than traditional reading instruction.

#### ➤ *Research Gap and Study Rationale*

Despite extensive research on metacognitive strategies and pragmatic competence in EFL reading, existing studies have largely treated these constructs as separate domains. Metacognitive research has primarily focused on planning, monitoring, and evaluation strategies in EFL learners (Flavell, 1979; Nation, 2020), often without addressing how learners interpret discourse markers, author stance, or implied meaning in written texts. Conversely, studies on pragmatic competence have tended to emphasize inference-making and discourse interpretation, typically among advanced EFL learners, without considering how learners regulate their comprehension processes during reading.

Moreover, while interactive models of reading, such as Rumelhart's interactive processing model (Rumelhart, 1994) and Grabe's interactive-compensatory model of L2 reading (Grabe, 2009), acknowledge the interaction between cognitive regulation and contextual interpretation, there is limited empirical evidence demonstrating how these components can be operationalized within an integrated instructional framework. This gap is particularly evident in non-Western EFL contexts, where learners may have limited exposure to authentic discourse patterns and strategic reading practices.

The present study addresses this gap by designing and empirically testing an integrated metacognitive-pragmatic instructional model for intermediate-level EFL learners. The study seeks to provide both quantitative evidence of instructional effectiveness and qualitative insight into how learners apply integrated strategies during reading.

Depending on the concerns above, this study is addressed to answer the following research questions:

- Does integrated metacognitive-pragmatic instruction significantly improve EFL learners' reading comprehension compared to traditional instruction?
- What types of strategies do learners employ while completing reading tasks, particularly with regard to comprehension monitoring and the interpretation of pragmatic meaning?
- How do learners perceive and describe their experiences with integrated instruction targeting metacognitive and pragmatic reading strategies?

## II. THEORETICAL FRAMEWORK

Research on language learning strategies has further elaborated the role of metacognitive regulation in second language learning. O'Malley and Chamot (1990) categorize learning strategies into cognitive, metacognitive, and socio-affective strategies, emphasizing that metacognitive strategies enable learners to plan, monitor, and evaluate their learning processes. Similarly, Oxford (1990) highlights that metacognitive strategies help learners coordinate their learning by setting goals, organizing study activities, and

reflecting on outcomes. Chamot (2004) further demonstrates that explicit strategy instruction improves learners' ability to regulate comprehension processes in reading tasks. Cohen and Weaver (2006) also emphasize the importance of strategy awareness in developing autonomous language learners. These studies collectively suggest that metacognitive strategies play a crucial role in enabling learners to control and optimize their reading comprehension processes.

The theoretical foundation of the present study draws on two complementary perspectives: metacognitive theory in second language learning and pragmatic competence in discourse interpretation. Integrating these perspectives allows for a more comprehensive understanding of how learners regulate their reading processes while simultaneously interpreting contextual meaning in texts.

Metacognition, first conceptualized by Flavell (1979), refers to learners' awareness of and control over their cognitive processes. In reading comprehension, metacognitive knowledge enables learners to plan how to approach a text, monitor their understanding during reading, and evaluate their comprehension after completing a task. Baker and Brown (1984) emphasize that proficient readers differ from less proficient ones primarily in their ability to regulate comprehension through strategic monitoring and self-correction. These processes allow readers to detect comprehension breakdowns and apply appropriate strategies to restore understanding.

Within the context of reading comprehension, metacognitive strategies are particularly important because they enable learners to actively control how they interact with texts. Anderson (2012) notes that strategic readers engage in planning before reading, monitoring comprehension while reading, and evaluating their understanding afterward. Such regulatory processes help learners integrate new information with prior knowledge and interpret textual meaning more effectively.

Complementing metacognitive theory, pragmatic competence focuses on how language users interpret meaning in context. Pragmatics examines how speakers and readers understand meaning beyond the literal level, including implicatures, presuppositions, and discourse relations (Thomas, 1995). In second language learning, pragmatic competence enables learners to recognize how contextual cues and discourse markers signal relationships between ideas in a text.

In reading comprehension, pragmatic awareness helps learners identify rhetorical relations, author stance, and implied meanings. Carrell (1983) demonstrates that background knowledge and discourse organization play a crucial role in second language reading comprehension. Similarly, Kasper and Rose (2002) argue that pragmatic competence allows language users to interpret meaning appropriately within specific communicative contexts. When learners become aware of discourse markers such as *however*, *therefore*, or *nevertheless*, they are better able to

recognize contrasts, causal relationships, and argumentative structures within texts.

The integration of metacognitive and pragmatic perspectives aligns with interactive models of reading. According to Rumelhart (1994), reading comprehension emerges from the interaction between bottom-up processes (such as decoding and lexical recognition) and top-down processes (such as background knowledge and inferencing). Grabe (2009) similarly argues that successful reading requires coordination between linguistic processing and strategic comprehension monitoring.

Within this framework, metacognitive strategies function as regulatory mechanisms that guide readers' comprehension processes, while pragmatic competence enables readers to interpret discourse-level meaning and contextual cues. When these two dimensions operate together, learners can more effectively construct meaning from texts, interpret authorial intentions, and engage in deeper levels of comprehension.

Reading fluency, on the other hand, involves the capacity to read accurately, swiftly, and with proper intonation or expression. It serves as a critical link between word recognition and comprehension, allowing readers to concentrate on meaning rather than decoding individual words (Wolf & Katzir-Cohen, 2021). Santos (2021) expands this view, defining fluency not only in terms of reading speed but also as the expressive reading that reflects true understanding of a text's meaning.

Rasinski (2019) emphasizes that repeated reading is one of the most effective strategies for developing reading fluency, as it enables students to read more smoothly and improve comprehension over time. Similarly, Pikulski and Chard (2020) argue that combining phonics instruction with fluency practice is essential, since strong decoding skills form the foundation for accurate and rapid reading.

Both international and local studies consistently highlight fluency as a vital component of reading development. Strategies such as repeated reading, guided oral reading, and phonics-based exercises have been shown to enhance fluency, which in turn supports comprehension and overall literacy. Teachers can implement these approaches in classrooms to help students develop smoother, more expressive, and effective reading skills.

Chamberlain and Kearns (2021) examined the impact of structured reading interventions aimed at improving fluency and comprehension in struggling readers. Using a mixed-methods design, the researchers collected data through both assessments and classroom observations over the course of an academic year. Their findings revealed that students who participated in these targeted interventions showed substantial gains in reading fluency and comprehension. This study highlights the importance of implementing well-designed, evidence-based interventions in classrooms to meet diverse learner needs and strengthen overall literacy outcomes.

Complementing this, Gough and Tunmer (2019) introduced the Simple View of Reading, a theoretical model that conceptualizes reading comprehension as the product of decoding ability and language understanding. Their review of empirical research supports the notion that both components are critical for effective reading, and neglecting either can impede student progress.

Therefore, integrating metacognitive strategy instruction with pragmatic awareness provides a theoretically grounded approach to improving reading comprehension in EFL contexts. By simultaneously developing learners' ability to regulate comprehension processes and interpret discourse meaning, this integrated model supports the development of more autonomous, strategic, and context-sensitive readers.

### III. METHODOLOGY

#### ➤ *Research Design*

The present study adopted a quasi-experimental mixed-methods design to examine the effectiveness of integrating metacognitive and pragmatic approaches in developing EFL learners' reading proficiency. The design combined quantitative and qualitative procedures to allow both measurable comparison and in-depth interpretation of learner behavior. Participants represented an intermediate-to-upper-intermediate range (B1–B2) according to the CEFR framework. Two intact classes participated in the study: one served as the experimental group, receiving integrated metacognitive–pragmatic instruction, and the other served as the control group, following the regular reading syllabus without explicit strategy training. This structure provided the basis for a controlled comparison of instructional outcomes while preserving the authenticity of the classroom environment.

#### ➤ *Qualitative Coding Procedure*

The qualitative data obtained from reflective journals and classroom observations were analyzed through a multi-stage coding process. First, open coding was conducted to identify recurring patterns in students' reflections regarding their reading strategies and comprehension processes. Initial codes such as *prediction*, *re-reading*, *identifying discourse markers*, *inferring author intention*, and *summarizing ideas* emerged directly from the participants' journal entries. These codes were then grouped into broader categories corresponding to metacognitive regulation and pragmatic awareness. In the final stage of analysis, the categories were organized into three overarching themes: heightened metacognitive awareness, enhanced pragmatic sensitivity, and interactive reading behavior. This coding procedure ensured that the themes reflected both the theoretical framework and the participants' actual learning experiences.

#### ➤ *Setting*

The study was conducted at the Foreign Languages Centre of Ivane Javakhishvili Tbilisi State University (TSU) in Tbilisi, Georgia, during the Fall semester of the 2025 academic year. The research was carried out within the university's English language instruction framework, which

provides academic English education to undergraduate students from various disciplinary backgrounds.

The study focused on a mandatory English language course offered by the Foreign Languages Centre. Enrollment in this course is compulsory for all undergraduate students, and instruction is provided to learners whose English proficiency ranges from B1 (intermediate) to Proficiency, as defined by the Common European Framework of Reference for Languages (CEFR). The course is designed to develop students' academic literacy and prepare them for university coursework delivered partially or fully in English.

➤ *Participants*

A total of 60 undergraduate EFL students (aged 18–22) participated in the study. All participants were enrolled in a

mandatory English language course offered by the Foreign Languages Centre at Ivane Javakishvili Tbilisi State University. According to the program curriculum, students' proficiency ranged from B1 to upper levels of the CEFR scale. Participants were assigned to an experimental group (n = 30) and a control group (n = 30) based on intact class groupings. The two groups were comparable in terms of age, language proficiency, and academic background. (Table 1).

- Total Participants: 60 B1 to upper levels of the CEFR scale
- Experimental Group (EG): 30 students receiving integrated instruction
- Control Group (CG): 30 students following standard syllabus

Table 1 Participants and Instruction Type

Group	N	Instruction Type	Mean Age	Language Level
EG	30	Metacognitive + Pragmatic	19.7	B1 intermediate-to-upper-intermediate range (B1–B2)
CG	30	Standard Reading Syllabus	19.5	B1 intermediate-to-upper-intermediate range (B1–B2)

➤ *Instructional Intervention*

The intervention lasted eight weeks, with two 90-minute sessions per week (16 sessions in total) and systematically combined metacognitive strategy training with pragmatic awareness instruction within regular reading lessons. The instructional design integrated three phases of metacognitive strategy use—planning, monitoring, and evaluation—with explicit instruction in pragmatic competence, particularly discourse markers, implicature, author stance, and contextual inference.

Planning strategies included setting reading objectives, previewing titles and headings, activating prior knowledge about the topic, predicting the possible content of the text, and identifying discourse markers that signal text organization (e.g., contrast, cause, or emphasis).

Monitoring strategies involved checking comprehension during reading, identifying unfamiliar lexical or pragmatic cues, recognizing discourse markers indicating shifts in argument or emphasis, asking clarification questions, and adjusting reading pace when comprehension difficulties occurred.

Evaluation strategies focused on assessing comprehension after reading, summarizing the main ideas, identifying the author's stance and implied meanings, and reflecting on the effectiveness of the strategies used.

• *Each Session Involved three Components:*

- ✓ Strategy Modeling – The instructor demonstrated how to plan reading goals, predict text content, identify linguistic and pragmatic cues (such as discourse markers), and monitor comprehension while reading.
- ✓ Guided Practice – Learners applied these strategies to short authentic reading passages, focusing on connecting ideas through discourse markers, identifying author stance, and interpreting implied meanings within the text.

- ✓ Reflection – Students recorded their strategic behavior, comprehension monitoring, and interpretation of pragmatic cues in reflective journals.

The control group, in contrast, followed the standard institutional reading syllabus. Lessons consisted primarily of text-based comprehension activities, vocabulary exercises, and teacher explanations, without explicit training in metacognitive or pragmatic strategies. This structured contrast between groups ensured that any observed improvements could be attributed to the combined metacognitive–pragmatic intervention rather than to general classroom exposure.

➤ *Experimental Group:*

The instructional intervention combined metacognitive strategy training with pragmatic awareness instruction in order to support both cognitive regulation and interpretive reading skills.

• *Metacognitive Strategy Training:*

Students were explicitly taught three core metacognitive strategies: planning, monitoring, and evaluation. During the planning phase, learners were guided to preview titles and headings, activate prior knowledge, and set reading goals before engaging with the text. In the monitoring phase, students practiced checking their comprehension while reading by identifying unclear passages, rereading difficult sections, and asking clarification questions. In the evaluation phase, learners assessed their understanding after reading by summarizing key ideas, reflecting on how effectively they applied reading strategies, and evaluating whether their initial predictions about the text were accurate.

• *Pragmatic Awareness Training:*

In parallel with metacognitive instruction, students received explicit guidance on interpreting pragmatic aspects of written discourse. Instruction focused on recognizing

discourse markers (e.g., however, therefore, in contrast) that signal relationships between ideas, identifying author stance and attitude toward the topic, and making contextual inferences about implied meaning in the text. Classroom activities included analyzing short authentic passages, discussing how discourse markers structure arguments, and identifying linguistic cues that reveal the author’s intention.

• *Duration and Structure of Instruction:*

The intervention was conducted over eight weeks, with two 90-minute sessions integrated into the regular reading curriculum. Each session followed a structured sequence consisting of (1) teacher modeling of strategies, (2) guided practice with authentic reading texts, and (3) reflective activities in which students recorded their strategic reading behaviors in learning journals.

➤ *Data Collection Instruments*

Ethical approval for the study was obtained from the relevant institutional body, and all participants provided informed consent prior to data collection.

Three complementary instruments were employed to collect both quantitative and qualitative data, as summarized in Table 2.

• *Reading Comprehension Tests (Pre- and Post-Test):*

A standardized reading comprehension test was administered before and after the intervention to measure students’ progress. Each test consisted of two authentic reading passages followed by multiple-choice and short-answer questions assessing both literal comprehension (e.g., identifying explicitly stated information) and inferential

comprehension (e.g., interpreting implied meaning, recognizing discourse relations, and identifying the author’s stance). The pre- and post-tests were parallel in structure and difficulty to ensure comparability of results.

• *Reflective Journals:*

Students in the experimental group completed weekly reflective journals in which they documented their experiences using metacognitive and pragmatic strategies during reading tasks. The journal prompts encouraged students to describe the strategies they used for planning, monitoring comprehension, and evaluating their understanding, as well as how they interpreted discourse markers, author stance, and contextual cues. These reflections provided qualitative insight into learners’ self-regulation processes and evolving awareness of pragmatic aspects of reading.

• *Observation Checklists:*

During each instructional session, the researcher used a structured observation checklist to record students’ engagement and strategy use. The checklist included indicators such as goal setting before reading, comprehension monitoring during reading, inferencing, identification of discourse markers, and discussion of author intention. Observational notes were taken to capture patterns of participation and strategic behavior across sessions.

The use of these three instruments enabled data triangulation, combining quantitative measures of reading comprehension improvement with qualitative evidence of learners’ strategic and pragmatic development during the intervention.

Table 2 Data Collection Instruments

Instrument	Purpose	Group	Data Type
Pre/Post Reading Comprehension Tests	Measure comprehension improvement	EG &CG	Quantitative
Reflective Journals	Monitor strategy use	EG	Qualitative
Observation Checklists	Record engagement and pragmatic use	EG	Qualitative

➤ *Validity and Reliability of Instruments*

The reading comprehension test used in this study demonstrated satisfactory reliability. Internal consistency was examined using Cronbach’s alpha, yielding coefficients of  $\alpha = .87$  for the pre-test and  $\alpha = .91$  for the post-test, indicating high reliability. In addition, the test has been widely used in EFL contexts and aligns with CEFR descriptors, supporting its content and construct validity.

Qualitative data obtained from reflective journals and classroom observation checklists were analyzed using a systematic coding procedure. In the first stage, excerpts from

students’ reflective journals were assigned initial descriptive codes representing specific reading behaviors (e.g., predicting content, rereading for clarification, recognizing discourse markers, summarizing key ideas). In the second stage, these codes were grouped into broader analytical categories corresponding to the study’s key constructs, including planning strategies, monitoring strategies, evaluation strategies, and pragmatic awareness. Table 3 illustrates examples of the coding process, showing how individual excerpts from participants’ reflections were linked to specific codes and subsequently organized into thematic categories.

Table 3 Example of the Qualitative Coding Procedure Illustrating how Excerpts from Students’ Reflective Journals were Assigned Initial Descriptive Codes and Grouped into Analytical Categories Representing Metacognitive Strategies and Pragmatic Awareness.

Excerpt from Reflective Journal	Initial Code	Analytical Category
“I read the title and headings first to guess what the text would discuss.”	Predicting content	Planning strategy

“When a sentence was confusing, I reread the paragraph to understand it better.”	Rereading for clarification	Monitoring strategy
“The word <i>however</i> showed that the author was presenting a different idea.”	Recognizing discourse marker	Pragmatic awareness
“After finishing the text, I summarized the main ideas in my notebook.”	Summarizing ideas	Evaluation strategy
“Words like <i>therefore</i> helped me understand the author’s conclusion.”	Identifying discourse relation	Pragmatic awareness

The coding scheme was initially informed by the theoretical framework of metacognitive strategies and pragmatic competence but was refined through iterative examination of the data to ensure that the resulting themes reflected patterns emerging from participants’ reflections. To ensure reliability, a second trained coder independently analyzed a subset of the qualitative data, and inter-coder agreement was high ( $\kappa = .85$ ), indicating consistent interpretation of the data. These procedures support the credibility and reliability of the qualitative findings.

#### ➤ *Procedures for Data Collection*

Ethical approval was obtained from the relevant institutional body. All participants provided informed consent, and confidentiality and voluntary participation were ensured throughout the study. Prior to data collection, all participants were informed about the purpose and procedures of the study, and written informed consent was obtained. Participants were assured that their identities would remain confidential and that participation was voluntary, with the right to withdraw from the study at any stage without academic penalty.

Data collection was conducted during regular classroom instruction over the Fall semester of the 2025 academic year at the Foreign Languages Centre. As the researcher was also the course instructor, all instructional and data collection procedures were implemented within the natural classroom setting. Quantitative data were gathered through pre- and post-reading comprehension assessments administered to both the experimental and control groups. Qualitative data were collected through reflective journals and structured classroom observations during the intervention period.

All instruments were administered to the 60 participating students enrolled in the mandatory English language course, and no external surveys or large-scale questionnaire distribution was involved. Data collection followed a structured timeline aligned with the instructional intervention, ensuring consistency and minimizing disruption to regular teaching activities

#### ➤ *Data Analysis Procedures*

Prior to inferential analysis, the assumptions of normality and homogeneity of variance were examined and satisfied, confirming the appropriateness of parametric tests. Given the two-group pre-post research design and continuous outcome measures, paired-samples t-tests were used to examine within-group changes, and independent-samples t-tests were employed to compare post-test performance between the experimental and control groups.

Effect sizes (Cohen’s  $d = 2.01$ ) were calculated to determine the magnitude of instructional impact beyond statistical significance.

Qualitative data obtained from reflective journals and classroom observations were analyzed using thematic analysis following Braun and Clarke’s (2006) framework. The integration of quantitative and qualitative analyses enabled a comprehensive interpretation of the findings and strengthened the validity of the results.

#### ➤ *Quantitative Analysis:*

Pre- and post-test scores were subjected to paired-sample t-tests within groups and independent-sample t-tests between groups to determine statistically significant differences in reading performance. A p-value of  $< .05$  was set as the significance threshold. These results were later summarized in Table 3 and illustrated through graphical comparisons.

#### ➤ *Qualitative Analysis:*

Reflective journals and observation notes were analyzed using thematic coding to identify patterns related to metacognitive awareness and pragmatic sensitivity. Themes were organized around learners’ reflections on planning, monitoring, evaluation, and recognition of discourse cues. The emerging patterns complemented quantitative findings by explaining *how* the experimental group achieved their improved performance.

## IV. RESULTS

#### ➤ *Quantitative Results*

The quantitative analysis was conducted to determine whether the integrated metacognitive-pragmatic instructional approach significantly improved students’ reading comprehension compared with traditional reading instruction. Prior to the intervention, an independent-samples analysis of pre-test scores confirmed that the experimental and control groups were statistically equivalent. The experimental group obtained a mean score of 62.4 (SD = 8.3), while the control group obtained a mean score of 61.9 (SD = 7.9), indicating comparable baseline reading proficiency between the two groups.

Following the eight-week instructional intervention, notable differences emerged in post-test performance. The experimental group demonstrated a substantial improvement in reading comprehension, achieving a mean score of 78.6 (SD = 6.5), representing an average gain of 16.2 points. In contrast, the control group showed only a modest increase,

with a post-test mean of 64.1 (SD = 7.7), corresponding to a gain of 2.2 points.

A paired-samples t-test revealed that the improvement observed in the experimental group was statistically significant ( $t(29) = 8.41, p < .001$ ), indicating that the integrated instructional model had a strong effect on learners' reading comprehension. By comparison, the control group exhibited only a minor improvement that did not reach statistical significance ( $t(29) = 1.97, p = .06$ ).

To further examine the instructional impact, an independent-samples t-test was conducted to compare post-test performance between the two groups. The results revealed a statistically significant difference ( $t(58) = 8.12, p < .001$ ) in favor of the experimental group. The magnitude of this difference was substantial, as indicated by a large effect size (Cohen's  $d = 2.01$ ), suggesting that the integrated metacognitive-pragmatic approach had a strong positive influence on learners' reading comprehension.

These results indicate that students who received integrated strategy instruction developed reading comprehension abilities at a considerably higher rate than those who received conventional reading instruction. The

magnitude of the observed gains suggests that the intervention influenced not only surface-level comprehension but also deeper interpretive processes involved in understanding discourse relations and authorial meaning in academic texts.

➤ *Between-Group Comparison and Instructional Impact*

A direct comparison of post-test scores revealed a statistically significant difference between the two groups ( $t(58) = 8.12, p < .001$ ), with the experimental group outperforming the control group by a wide margin. Importantly, the magnitude of this difference reflects not merely statistical significance but a qualitatively stronger learning outcome, as evidenced by the sharp divergence in mean gains.

These results indicate that learners exposed to the integrated metacognitive-pragmatic instructional model developed reading comprehension abilities at a substantially higher rate than those receiving traditional instruction. The size of the observed gain suggests that the intervention affected not only surface-level comprehension but also deeper interpretive processes involved in academic reading. Table 3 summarizes pre- and post-test performance.

Table 4 Pre- and Post-Test Reading Comprehension Scores for Experimental and Control Groups.

Group	Pre-Test Mean (SD)	Post-Test Mean (SD)	Mean Gain	value	Sig. (p)
Experimental Group (EG)	62.4 (8.3)	78.6 (6.5)	+16.2	8.41	.001
Control Group (CG)	61.9 (7.9)	64.1 (7.7)	+2.2	1.97	.06

Table 4 visually represents the differences between the pre- and post-test scores across the two groups. The sharp rise in the experimental group's mean score compared to the relatively stable control group performance reinforces the quantitative evidence for the intervention's positive effect.

➤ *Qualitative Results*

To complement the quantitative findings, qualitative data obtained from reflective journals and classroom observations were analyzed using thematic analysis. The coding process identified recurring patterns in students' descriptions of their reading strategies and interpretation of textual meaning. Three major themes emerged from the analysis: (1) heightened metacognitive awareness, (2) enhanced pragmatic sensitivity, and (3) increased interactive reading behavior.

➤ *Heightened Metacognitive Awareness*

Learners in the experimental group demonstrated increased ability to regulate their reading processes. Journal entries consistently reflected deliberate planning (e.g., previewing titles and predicting content), active monitoring (e.g., identifying comprehension breakdowns), and post-reading evaluation (e.g., summarizing and reflecting on understanding). These behaviors indicate a transition from passive reading to self-regulated comprehension control. For example, participants noted:

*“Before reading the text, I tried to predict the topic from the title and the first sentences. This made it easier to*

*understand the main idea of the article.”* participant described how planning strategies helped guide their reading process:

- *A Different Student Reflected on Monitoring Comprehension During Reading:*  
*“Sometimes I realized that I did not understand a sentence, so I reread the paragraph and checked how it was connected to the previous idea.”*
- *Students Also Demonstrated Awareness of Pragmatic Cues in the Text. One Learner Noted:*  
*“When I saw the word however, I understood that the author was introducing a contrasting argument, which helped me follow the structure of the text.”*
- *Another Participant Emphasized the Role of Discourse Markers in Interpreting Meaning:*  
*“Words like therefore or in contrast helped me understand how the ideas in the text were related to each other.”*

These reflections illustrate how learners gradually developed both metacognitive regulation and pragmatic awareness while interacting with the reading materials. Such behaviors were rarely observed in the control group, suggesting that explicit metacognitive instruction fostered strategic reading habits beyond routine classroom practice.

➤ *Enhanced Pragmatic Sensitivity*

A defining feature of the experimental group’s development was increased sensitivity to pragmatic cues within texts. Learners frequently reported identifying discourse markers (e.g., *however, therefore, nevertheless*) as signals of rhetorical relations. This awareness enabled them to anticipate contrasts, causal relations, and shifts in authorial stance, facilitating more coherent text interpretation.

Students explicitly linked comprehension improvement to understanding pragmatic markers, indicating that pragmatic awareness functioned as a meaning-construction tool rather than a purely linguistic feature. While the instructional design also included attention to implicature and contextual inference, the qualitative data from reflective journals most consistently revealed evidence related to discourse marker recognition and interpretation of discourse relations. Explicit references to implicature or broader contextual inference were less frequently articulated by the participants.

- *For Instance, One Participant Noted:*  
*“When I saw the word however, I understood that the author was introducing a contrasting argument.”*

- *Another Learner Explained:*  
*“Words like therefore helped me understand how the ideas in the text were connected.”*

This awareness enabled students to interpret textual organization more effectively and to recognize shifts in argumentation and author stance.

➤ *Increased Interactive Reading Behavior*

The third theme reflects a qualitative shift in reading engagement. Experimental group learners actively discussed interpretations, posed inferential questions, and collaboratively constructed meaning based on textual evidence. Observation data confirmed increased peer interaction and reference to discourse structure during reading tasks.

This pattern contrasts with the control group’s predominantly answer-focused approach and indicates that the integrated instructional model promoted interactive, discourse-oriented reading behavior. The convergence of metacognitive regulation and pragmatic interpretation resulted in a qualitatively different mode of reading engagement. Table 5 summarizes key patterns emerging from qualitative data.

Table 5 Thematic Analysis of Observations

THEME	ILLUSTRATIVE JOURNAL EXCERPT	OBSERVED BEHAVIOR
PLANNING	“I skimmed the title and first paragraph to predict the main topic.”	Used previewing and goal setting
	“Before reading the text, I tried to guess what the author might discuss based on the headings.”	Activated prior knowledge and predicted content
MONITORING	“I realized I didn’t understand the example, so I reread it.”	Paused to clarify meaning
	“When the paragraph seemed confusing, I slowed down and looked again at the previous sentence.”	Adjusted reading pace and checked comprehension
PRAGMATIC SENSITIVITY	“The word <i>however</i> changed the direction of the author’s idea.”	Identified discourse markers
	“When I saw <i>therefore</i> , I understood that the author was giving a conclusion.”	Recognized discourse relations
EVALUATION	“Summarizing each section helped me see how ideas were connected.”	Wrote reflective summaries
	“After finishing the text, I checked whether my prediction about the author’s message was correct.”	Evaluated comprehension and strategy use

In summary, the results demonstrate that the integrated metacognitive–pragmatic instructional approach produced both statistically significant and qualitatively meaningful improvements in EFL learners’ reading comprehension. The experimental group not only achieved substantially higher post-test scores than the control group but also exhibited distinctive changes in reading behavior, characterized by enhanced self-regulation, increased sensitivity to discourse-level meaning, and more active interpretive engagement with texts. In contrast, the control group showed only minimal development under traditional instruction. These findings indicate that the observed gains cannot be attributed solely to general reading practice, but rather to the synergistic integration of metacognitive strategy use and pragmatic awareness, which constitutes the principal empirical contribution of the present study.

V. DISCUSSION

The findings of the present study provide robust evidence that integrating metacognitive strategy instruction with pragmatic awareness significantly enhances EFL learners’ reading comprehension. The substantial quantitative gains observed in the experimental group indicate that the combined instructional model is more effective than traditional reading instruction, which yielded only minimal improvement. Importantly, the magnitude of the difference between groups suggests that the intervention influenced not merely test performance, but the underlying processes through which learners construct meaning from texts.

The qualitative findings help explain the mechanisms behind this improvement. Metacognitive instruction enabled learners to actively regulate their reading by planning,

monitoring comprehension breakdowns, and evaluating understanding. At the same time, pragmatic instruction equipped learners with tools to interpret discourse relations, author stance, and implied meaning. The integration of these components allowed learners to align cognitive regulation with contextual interpretation, supporting interactive models of reading that emphasize the dynamic interplay between bottom-up processing and top-down inferencing (Rumelhart, 1994; Grabe, 2009).

A key contribution of the present study lies in demonstrating that pragmatic awareness functions as a facilitator of strategic reading, rather than as an isolated linguistic skill. While previous research has documented the benefits of metacognitive strategy training (Chamberlain & Kearns, 2021), the current findings show that such strategies are substantially more effective when learners are simultaneously guided to attend to pragmatic cues that organize and signal meaning in texts. This synergy explains the exceptionally large learning gains observed in the experimental group.

Another important finding is the evidence of strategy transfer. Learners reported applying metacognitive and pragmatic strategies spontaneously when encountering unfamiliar texts, suggesting that the instructional approach promoted internalization rather than short-term procedural use. This transfer effect indicates the development of learner autonomy, a critical component of academic literacy in EFL contexts.

From a pedagogical perspective, the results highlight the limitations of reading instruction that focuses primarily on linguistic decoding and comprehension questions. The minimal gains observed in the control group suggest that exposure to texts alone is insufficient to foster higher-level comprehension. In contrast, the integrated instructional model demonstrates that reading proficiency develops most effectively when learners are explicitly taught how to regulate comprehension and how to interpret discourse-level meaning simultaneously.

Taken together, these findings clarify the distinction of the current study: it provides empirical evidence that the integration of metacognitive regulation and pragmatic interpretation produces qualitatively different reading behavior, validating interactive reading theory and offering a pedagogically viable model for EFL reading instruction.

## VI. CONCLUSION

This study provides empirical evidence that the integration of metacognitive strategy instruction and pragmatic awareness significantly enhances reading comprehension among EFL learners. By combining metacognitive processes—planning, monitoring, and evaluation—with explicit attention to pragmatic features such as discourse markers, implicature, and author stance, learners in the experimental group achieved substantially greater comprehension gains than those receiving traditional instruction. Importantly, these gains were reflected not only

in test performance but also in learners' ability to engage in strategic, reflective, and context-sensitive reading.

The findings confirm that reading comprehension is a multidimensional process requiring both cognitive self-regulation and pragmatic interpretation. Metacognitive strategies enabled learners to manage comprehension processes actively, while pragmatic awareness facilitated deeper understanding of textual organization and implied meaning. The observed synergy between these components supports interactive models of reading (Rumelhart, 1994; Grabe, 2009) and demonstrates that strategic regulation and contextual interpretation function most effectively when developed together.

A key contribution of this study lies in demonstrating that pragmatic competence is not merely a supplementary skill but a central mechanism that strengthens the effectiveness of metacognitive strategy use in reading. The qualitative evidence shows that learners internalized integrated strategies and began applying them independently, indicating the development of learner autonomy and transferable academic reading skills.

From a pedagogical perspective, the results suggest that EFL reading instruction should move beyond surface-level comprehension practices and explicitly integrate metacognitive and pragmatic dimensions into curriculum design and classroom instruction. Teacher education programs should equip instructors with practical tools for modeling strategy use and guiding learners' interpretation of discourse-level meaning. In addition, assessment practices should be aligned with these instructional goals by evaluating not only comprehension outcomes but also strategic and interpretive reading processes.

In conclusion, this study advances EFL reading pedagogy by offering a replicable, theoretically grounded instructional model that bridges cognitive regulation and pragmatic understanding. By fostering strategic, autonomous, and contextually aware readers, the integrated approach contributes to more effective academic literacy development and provides a foundation for future research on long-term effects, broader proficiency ranges, and applications to other language skills.

## REFERENCES

- [1]. Anderson, N. J. (2012). *Metacognition in teaching and learning English as a foreign language*. In A. Burns & J. C. Richards (Eds.), *The Cambridge guide to pedagogy and practice in second language teaching* (pp. 167–176). Cambridge University Press.
- [2]. Baker, L., & Brown, A. L. (1984). *Metacognitive skills and reading*. In P. D. Pearson (Ed.), *Handbook of reading research* (pp. 353–394). Longman.
- [3]. Carrell, P. L. (1983). Some issues in studying the role of schemata, or background knowledge, in second language comprehension. *Reading in a Foreign Language, 1*(2), 81–92.

- [4]. Chamberlain, M., & Kearns, D. (2021). Investigating the effectiveness of structured reading interventions for struggling readers: A mixed-methods approach. *Reading Research Quarterly*, 56(4), 721–742. <https://doi.org/10.1002/rrq.401>
- [5]. Chamot, A. U. (2004). Issues in language learning strategy research and teaching. *Electronic Journal of Foreign Language Teaching*, 1(1), 14–26.
- [6]. Cohen, A. D., & Weaver, S. J. (2006). *Styles and strategies-based instruction*. University of Minnesota.
- [7]. Cruz, M. A. (2020). The role of reading fluency in literacy development among Filipino learners. *Philippine Journal of Education*, 93(2), 45–58.
- [8]. Duke, N. K., & Pearson, P. D. (2020). *Effective practices for developing reading comprehension*. Teachers College Press.
- [9]. Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive–developmental inquiry. *American Psychologist*, 34(10), 906–911. <https://doi.org/10.1037/0003-066X.34.10.906>
- [10]. Gough, P. B., & Tunmer, W. E. (2019). Decoding, reading, and reading disability. *Remedial and Special Education*, 40(5), 315–329. <https://doi.org/10.1177/0741932519831383>
- [11]. Grabe, W. (2009). *Reading in a second language: Moving from theory to practice*. Cambridge University Press.
- [12]. Kasper, G., & Rose, K. R. (2002). *Pragmatic development in a second language*. Blackwell Publishing.
- [13]. Nation, I. S. P. (2020). *Learning vocabulary in another language* (2nd ed.). Cambridge University Press.
- [14]. O'Malley, J. M., & Chamot, A. U. (1990). *Learning strategies in second language acquisition*. Cambridge University Press.
- [15]. Oxford, R. L. (1990). *Language learning strategies: What every teacher should know*. Newbury House.
- [16]. Pikulski, J. J., & Chard, D. J. (2020). Fluency: The bridge between decoding and reading comprehension. *The Reading Teacher*, 74(1), 27–37. <https://doi.org/10.1002/trtr.1891>
- [17]. Rasinski, T. V. (2019). *The fluent reader: Oral reading strategies for building word recognition, fluency, and comprehension* (3rd ed.). Scholastic.
- [18]. Rumelhart, D. E. (1994). Toward an interactive model of reading. In R. B. Ruddell, M. R. Ruddell, & H. Singer (Eds.), *Theoretical models and processes of reading* (4th ed., pp. 864–894). International Reading Association.
- [19]. Santos, M. C. (2021). Vocabulary knowledge, fluency, and comprehension among EFL learners: A mixed-methods analysis. *Asian EFL Journal*, 25(3), 132–157.
- [20]. Stahl, S. A., & Nagy, W. E. (2019). *Teaching word meanings*. Routledge.
- [21]. Thomas, J. (1995). *Meaning in interaction: An introduction to pragmatics*. Longman.
- [22]. Wolf, M., & Katzir-Cohen, T. (2021). Reading fluency and its intervention: Insights from developmental and neurocognitive perspectives. *Journal of Educational Psychology*, 113(7), 1281–1297.