



GRAMMAR-MEDIATED READING COMPREHENSION: EFL LEARNERS' PERSPECTIVES, STRATEGIES AND TEXTUAL CHALLENGES

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Abstract

This descriptive qualitative study explored how grammatical knowledge supported reading comprehension among 31 third-semester Indonesian EFL students. Data were collected through semi-structured interviews, think-aloud protocols, and written reflection journals, and then analyzed thematically. Findings showed that grammar functioned as a meaning-decoding resource and supported reading confidence. Learners employed syntactic segmentation, grammatical inferencing, structural re-parsing, and proficiency-related strategy shifts. Complex embedded clauses, passive constructions, and combined grammar–vocabulary gaps were the main barriers to comprehension. The findings suggest integrating declarative and procedural grammar knowledge into meaningful reading instruction across different proficiency levels.

Keywords: *EFL Reading Comprehension, Grammatical Knowledge, Reading Strategies, Syntactic Awareness, Textual Challenges*

INTRODUCTION

Reading comprehension in the context of English as a Foreign Language (EFL) requires learners to integrate syntactic knowledge with cognitive strategies to parse complex sentence structures (Momdjian & Chidiac, 2025; Zaka et al., 2026). Sound knowledge of grammar serves as a primary foundation for learners to navigate the logical relationships between clauses, thereby facilitating the construction of a coherent overall meaning (Zhou et al., 2024). However, for learners whose proficiency has not yet reached the threshold, the role of grammar in supporting understanding is often not clearly visible, so they rely more on vocabulary mastery to extract meaning from the text (Hu et al., 2022). When EFL learners lack sufficient grammatical knowledge, they frequently encounter difficulties in parsing complex sentence structures, identifying cohesive relations between clauses, and constructing accurate mental representations of text meaning (Khasawneh & Belton, 2025), making them

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more likely to misunderstand sentence meanings and causing them to misinterpret the information presented in a text (Vongsawath et al., 2025).

Empirical studies show that proficiency in language structure contributes significantly to reading ability, with the influence reaching substantial figures in processing text information (Munibi, 2023). This is in line with the finding that strong mastery of grammar significantly improves reading comprehension, especially in narrative texts that require in-depth structural interpretation (Yousefpoori-Naeim, 2025). Without a clear understanding of how learners themselves perceive and utilize grammar as a reading tool, instructors and curriculum designers lack the learner-centered insight necessary to craft effective, targeted reading instruction (Prasetia et al., 2022). In addition, Wulandari et al. (2026) argue that the inability to parse complex syntactic constructions often triggers cognitive overload, forcing learners to repeatedly reread to process meaning accurately. This phenomenon, according to Pratiwi (2019), shows that syntactic knowledge has a strong positive correlation with reading comprehension performance, as the learner's ability to analyze sentence structure enables more accurate predictions of the writer's intended message.

Furthermore, an accurate understanding of the grammatical relationships among sentence elements helps learners correctly identify the positions of subjects, verbs, and objects, thereby minimizing semantic ambiguity in complex structures (Purnama et al., 2025). Therefore, mastery of grammatical rules enables learners to monitor syntactic information efficiently during the reading process, which ultimately facilitates inferring the meaning of the text indirectly. In addition, the ability to manage syntactic structures enables readers to identify logical propositions embedded in complex sentences, a key differentiator between readers with stronger text comprehension and those who have difficulty processing text (Sahiruddin, 2019). According to Zheng et al. (2023), grammatical knowledge not only supports sentence-level processing but also functions as a self-monitoring resource for maintaining textual coherence. Thus, an understanding of diverse syntactic constructions is a significant predictor of effective reading ability, going beyond mere vocabulary mastery or individual memory (Hu et al., 2022).

Previous studies have predominantly examined the relationship between grammatical knowledge and reading comprehension using correlational, experimental, or structural

equation modeling approaches (Hu et al., 2022; Zheng et al., 2023). Although these studies demonstrate the statistical contribution of grammatical knowledge, they offer only a limited explanation of how EFL learners consciously use grammar when processing difficult texts (Prasetia et al., 2022). In particular, insufficient attention has been given to learners' grammar-mediated reading strategies, their affective responses to syntactic difficulty, and the differences in strategy use associated with perceived proficiency (Sahiruddin, 2019; Sibarani & Pandia, 2024). Therefore, a qualitative investigation combining interviews, think-aloud data, and reflective journals is needed to capture the cognitive and experiential dimensions of grammar-supported reading.

This study argues that the ability to analyze grammatical constructions is a crucial component of learners' interlanguage, directly influencing their ability to identify the main proposition in complex sentences (Sibarani & Pandia, 2024). This emphasizes the importance of understanding syntax not merely as a formal rule but as a cognitive tool that dissects the complexity of propositions to process meaning in depth (Sahiruddin, 2019). When learners lack the ability to leverage grammatical constructions as meaning-making tools, their capacity to identify thematic organization, track referential chains, and infer discourse relations is correspondingly diminished, resulting in superficial rather than deep text understanding (Vongsawath et al., 2025).

The novelty of this study then lies not in arguing that grammar is important for reading comprehension, a claim already well-established in the literature (Hu et al., 2022; Zheng et al., 2023), but in offering a qualitative, learner-centered account of how grammatical knowledge is actually used during the reading process in an Indonesian EFL university context. Specifically, this study makes four interrelated contributions. First, it provides a qualitative explanation of how EFL learners consciously perceive and deploy grammatical knowledge as a meaning-making resource during reading. Second, it identifies four grammar-mediated reading strategies; syntactic segmentation, grammatical inferencing, structural re-parsing, and proficiency-differentiated strategy shifting. Third, it reveals the affective function of grammatical competence in reading that learners experience grammatical familiarity as a source of reading confidence and security, and grammatical unfamiliarity as a source of anxiety and disengagement. Fourth, methodologically, this study triangulates three

complementary instruments—semi-structured interviews, think-aloud protocols, and written reflection journals—to capture both the reflective and in the moment dimensions of grammar-supported reading. Together, these contributions offer a more granular, empirically grounded, and pedagogically actionable understanding of how grammar shapes the EFL reading experience, situated specifically within the Indonesian higher education context.

By centering learners' voices through a descriptive qualitative approach, this study aims to investigate how grammar supports reading comprehension from the perspectives of EFL learners, with a particular focus on the relationship between grammatical awareness, reading strategy use, and text understanding (Sahiruddin, 2019).. To achieve this aim, the following research questions guide the study: (1) How do EFL learners perceive the role of grammatical knowledge in supporting their comprehension of English texts? (2) What reading strategies do EFL learners employ in relation to grammatical awareness when processing grammatically complex texts? (3) What grammatical challenges do EFL learners encounter during reading, and how do these challenges affect their text comprehension?

RESEARCH METHOD

This study adopts a descriptive qualitative approach to explore EFL students' perceptions of the role of grammar in text comprehension. According to Creswell and Creswell (2023), qualitative research is appropriate when the aim of inquiry is to understand the lived experiences, perceptions, and meaning-making processes of participants within their natural contexts. A total of 31 participants were involved in this study. They were third-semester undergraduate students of the English Language Education Department, Universitas Muhammadiyah Pringsewu, Lampung, Indonesia. Participants were selected through a *purposive sampling technique* with the following criteria: (a) active enrollment in the English Language Education program, (b) completion of at least two semesters of formal English instruction covering grammar and reading courses, and (c) willingness to participate and reflect on their reading experiences in English. Participant proficiency was classified based on self-reported English ability verified through a brief background questionnaire administered prior to data collection: learners who rated their English as intermediate or above were categorised as higher-proficiency participants, while those who rated themselves

as elementary or pre-intermediate were classified as lower-proficiency participants. This classification was used analytically to examine proficiency-differentiated patterns of reading strategy use across the dataset.

Three complementary data collection instruments were employed in this study to ensure methodological triangulation and data richness: *semi-structured interview*, *think-aloud protocol*, and *written reflection journal*. The data were then analyzed using thematic analysis following the six-phase approach proposed by Braun and Clarke (2022), which is widely applied in qualitative applied linguistics research for its transparency, rigor, and flexibility.

The primary data collection instrument was an individual *semi-structured interview*, conducted in Indonesian or English according to each participant's preference to minimize linguistic barriers to self-expression. Each interview lasted approximately 45 to 60 minutes and was audio-recorded with participants' informed consent. Recordings were transcribed verbatim by the researcher, and any interview responses delivered in Indonesian were subsequently translated into English prior to analysis. To ensure translation accuracy, a bilingual applied linguistics colleague reviewed a random sample of 20% of the translated excerpts and confirmed consistency with the original Indonesian responses. The interview protocol was organized around the three research questions and consisted of three thematic clusters of questions. Cluster 1 (aligned with RQ1) probed participants' general perceptions of grammar as a tool for reading comprehension. Cluster 2 (aligned with RQ2) explored specific reading strategies employed in relation to grammatical awareness. Cluster 3 (aligned with RQ3) addressed text comprehension challenges at the grammatical level. Prior to data collection, the interview protocol was validated through expert review by two applied linguistics scholars.

The *think-aloud protocol (TAP)* was employed as a supplementary instrument to capture participants' in-the-moment cognitive processing during reading. Participants were asked to verbalize their thoughts as they read a short English text aloud, pausing to articulate their comprehension strategies, grammatical observations, and points of difficulty as they arose (Jonasson, 2022; Zaka et al., 2026). The text used for the TAP was a purposively selected expository passage of approximately 300 to 400 words at the B2 level of the Common European Framework of Reference (CEFR). The text was selected on the basis of

three criteria: (a) it contained a range of complex syntactic structures, including embedded relative clauses, passive constructions, and multi-clause sentences with discourse connectors; (b) it was topically accessible to third-semester university students; and (c) it represented the genre of academic expository prose that participants routinely encountered in their studies. TAP sessions were video-recorded to capture both verbalizations and observable reading behaviors such as re-reading, pausing, and pointing. Following the TAP and interview session, each participant was asked to complete a *structured written reflection* of 150 to 200 words in response to two open-ended prompts: (1) “Reflect on how your knowledge of English grammar helped or did not help you understand the text you read today”; and (2) “Describe one specific moment during your reading where grammar affected your understanding, and explain what you did to resolve the difficulty.”

Data analysis followed the six-phase reflexive thematic analysis framework of Braun and Clarke (2022). In Phase 1 (*Familiarization*), interview transcripts, TAP verbalizations, and written reflections were transcribed verbatim and read repeatedly to develop deep familiarity with the dataset. In Phase 2 (*Generating Initial Codes*), each data item was systematically coded at the semantic level, assigning descriptive labels to meaningful units of text relevant to the research questions. In Phase 3 (*Searching for Themes*), initial codes were sorted and clustered into candidate themes capturing patterns of shared meaning across participants and instruments. In Phase 4 (*Reviewing Themes*), candidate themes were reviewed against coded data extracts and the full dataset to ensure coherence, distinctiveness, and adequate data support. In Phase 5 (*Defining and Naming Themes*), each theme was assigned a clear analytical name and a concise definition capturing its essence. In Phase 6 (*Producing the Report*), selected data extracts were used to illustrate each theme in the written findings, with analytical commentary connecting themes to the research questions.

The trustworthiness of this study was established through four criteria adapted from Lincoln and Guba’s (1985) framework. *Credibility* was enhanced through methodological triangulation across three instruments and member checking, in which a subsample of five participants reviewed a summary of the themes and representative extracts to verify the accuracy of the researcher’s interpretations. *Transferability* was supported through thick description of the research context, participants, and analytical procedures. *Dependability*

was ensured through a detailed audit trail documenting all methodological decisions, including sampling rationale, instrument design, coding decisions, and theme revisions. An inter-rater reliability check was performed with a second coder who independently coded a 20% subsample of the transcripts; Cohen's Kappa was calculated to assess coding consistency, with a target coefficient of $\kappa \geq 0.75$. *Confirmability* was addressed through reflexivity: the researcher maintained a reflexivity journal throughout data collection and analysis to document assumptions, emerging interpretations, and potential biases that may have influenced analytical decisions (Braun & Clarke, 2022).

This study adhered to established ethical principles governing research with human participants. Prior to data collection, all participants received a written informed consent form explaining the study's purpose, their right to withdraw at any time without penalty, the confidentiality of their data, and the audio and video recording procedures. Participant anonymity was maintained throughout: all names were replaced with participant codes (P1–P31) in all data records, analysis documents, and published outputs. Audio and video recordings were stored on a password-protected device accessible only to the principal researcher. Participation was entirely voluntary, and no academic penalty or reward was attached to participation or non-participation.

FINDING AND DISCUSSION

Findings

Learners' Perceptions of Grammatical Knowledge in Supporting Text Comprehension

The first research question asked how EFL learners perceive the role of grammatical knowledge in supporting their comprehension of English texts. Three sub-themes emerged: (a) grammar as a meaning-decoding tool, (b) grammar as a source of reader confidence, and (c) the perceived limits of grammatical knowledge.

Grammar as a Meaning-Decoding Tool

Twenty-four of the 31 participants independently identified subject-verb as their primary grammatical strategy when processing a complex sentence. During the reading process, grammar was consistently characterized as the structural "skeleton" that facilitates

the comprehension of textual meaning, rather than as an abstract formal rule system. As presented by some of the following students.

“When I read a long sentence and I don’t understand it, I try to find the main verb first. If I can find the verb, I can understand what is happening in the sentence. Grammar helps me do that.” [P7]

“I always look for the subject and the verb. That is like the skeleton of the sentence. Without grammar, the sentence is just a lot of words and I cannot tell what belongs together.” [P14]

Think-aloud data from 19 participants corroborated this pattern, in which participants were observed pausing at clause boundaries, verbalizing subject-verb identification steps, and rereading sentences from the main clause outward when embedded clauses created processing difficulty.

This finding aligns with Zheng et al.'s (2023) meta-analytic evidence, drawn from 86 studies involving 14,852 readers, that grammatical knowledge exerts a large overall effect on reading comprehension. It also substantiates Hu et al.'s (2022) structural equation modeling finding that grammar knowledge produces a direct effect on reading comprehension through meaning-related processes. Crucially, the present study adds a learner-perspective dimension that prior quantitative investigations could not provide that EFL learners actively and intentionally draw on grammatical knowledge as a resource for constructing meaning during reading. This is consistent with Sahiruddin's (2019) view that syntactic knowledge can serve as a resource for making sense of propositional content in complex sentences, a claim that the present learner accounts support at the level of reported reading experience, though not at the level of cognitive mechanism.

Grammar as a Source of Reader Confidence

Seventeen participants described feeling “secure” and “in control” when reading texts whose grammatical structures they recognized, and experienced anxiety or cognitive disengagement when confronted with syntactically unfamiliar constructions. Grammar was thus experienced as an affective stabilizer, not only a cognitive resource, in the reading process.

“When I understand the grammar, I feel more confident to keep reading. I know I am not missing something important. But when there are grammar structures I don’t know, I feel like I might be getting the wrong meaning, and that makes me want to stop.” [P22]

“Grammar gives me a feeling of safety when I read. If the sentence is grammatically clear, I can focus on the meaning. If the grammar is confusing, I spend all my energy trying to figure out the structure and I forget what the text is about.” [P3]

The affective dimension of grammatical competence in reading has received limited empirical attention in EFL contexts. The present finding is consistent with Gebremariam and Weldeyohannes' (2025) evidence that metacognitive self-assessment significantly predicts reading comprehension achievement, suggesting a possible pathway from grammatical competence through affective self-efficacy to deeper engagement with text. P3's account of directing “all energy” toward structural decoding at the expense of meaning-level comprehension resonates with theoretical accounts of attentional allocation during reading (Siregar, 2025; Wulandari et al., 2026), although the present qualitative data do not permit direct conclusions about underlying cognitive mechanisms. What these learner accounts do indicate clearly is that when grammatical structures are unfamiliar, participants experienced a felt reduction in reading capacity, a perception that itself may shape engagement and persistence with the text. This suggests that building grammatical confidence alongside grammatical knowledge should be considered an explicit objective of EFL reading instruction (Saengboon et al., 2022; Yousefpoori-Naeim, 2025).

The Perceived Limits of Grammatical Knowledge

Eleven participants articulated a sophisticated, multi-faceted model of reading comprehension, wherein grammar was regarded as essential yet insufficient. Vocabulary deficiencies, foreign conversation conventions, and insufficient prior knowledge were recognized as concurrent obstacles that grammatical skill alone could not address.

“I can understand the grammar of a sentence perfectly, but if there are words I don't know, I still can't understand the meaning. Grammar is helpful but vocabulary is also very important. They work together.” [P18]

“Sometimes I know the grammar is a passive sentence, but I still don't know what the text is trying to say because the topic is too specialized. Grammar gives me the structure but not the content.” [P9]

Participants' intuitive articulation that grammar and vocabulary “work together” is consistent with the empirical findings of Hu et al. (2022), whose Structural Equation Modeling (SEM) analyses demonstrated that grammar knowledge exerts both direct and

vocabulary-mediated indirect effects on reading comprehension. The present findings offer a learner-experiential account that resonates with this modeled relationship where participants reported that grammatical and vocabulary competencies were experienced as mutually supportive during reading, and that the absence of either created difficulty. These perceptions align with the Simple View of Reading (Gough & Tunmer, 1986), which positions reading comprehension as a product of decoding competencies and broader language comprehension, which requires vocabulary and background knowledge as additional essential components (Hu et al., 2022; Shi, 2023; Qunayeer, 2021). It should be noted that the nature of this interaction, whether additive, multiplicative, or otherwise, cannot be determined from qualitative data alone and would require experimental or psychometric investigation to confirm.

Reading Strategies Employed in Relation to Grammatical Awareness

The second research question investigated what reading strategies EFL learners employ in relation to their grammatical awareness when processing grammatically complex texts. Four sub-themes emerged: (a) syntactic segmentation, (b) grammatical inferencing, (c) re-reading and structural re-parsing, and (d) proficiency-differentiated strategy shifting.

Syntactic Segmentation

Twenty-six of 31 participants reported syntactic segmentation—the deliberate breaking down of complex sentences into smaller grammatical units—as their primary grammar-mediated reading strategy. This was the single most prevalent grammar-reading behavior identified across all instruments.

“When I see a very long sentence, I divide it into smaller parts. I find the commas and conjunctions and I use them to cut the sentence into pieces I can understand one by one. After I understand each part, I put the meaning together.” [P5]

“I mentally draw a line between the clauses. Like, ‘this part is the main idea’ and ‘this part adds information’. Grammar helps me see where one idea ends and another begins.” [P27]

Think-aloud data from 22 participants then confirmed this strategy behaviorally, with finger-pointing, verbalization, and targeted re-reading observed as physical manifestations of segmentation. Relative clauses and embedded nominal clauses generated the most frequent segmentation attempts.

Discussion

This finding aligns with Tun-Ju and Tsai's (2025) evidence that structural analysis strategies are among the most commonly reported reading behaviors among EFL university learners. The present study extends this by identifying the specific grammatical mechanism that participants use knowledge of clause boundaries, conjunction functions, and punctuation as structural markers to define manageable processing units, managing working memory load during complex text processing (Zaka et al., 2026; Zheng et al., 2023). This also substantiates Sibarani and Pandia's (2024) argument that grammatical construction analysis is a crucial learner competency for identifying main propositions in complex sentences.

Grammatical Inferencing

Twenty-one participants described using grammatical cues—verb tense markers, modal verbs, discourse connectors, and pronoun reference chains—as inferential tools for constructing textual meaning, even when specific vocabulary items were unknown. Grammar was used proactively to anticipate as well as decode meaning.

“If I don’t know a word, I look at the grammar around it. If the verb is in passive voice, I know something is being done to the subject. The grammar tells me the relationship between things even if I don’t know all the words.”
[P11]

“Connectors like ‘however’ or ‘therefore’ help me a lot. I know that ‘however’ means the writer is about to say something different or opposing. So even before I fully understand the sentence, I already know the direction of the argument.” [P19]

Grammatical inferencing, as described by participants, closely resembles the use of structural knowledge to generate predictions about incoming textual content—a process associated with top-down processing in reading research (Zhou, 2022). The use of discourse connectors to anticipate argumentative direction corresponds to what Habók et al. (2024) categorize as “global” reading strategies, which operate at the discourse rather than sentence level and are significantly associated with higher online reading comprehension performance. The tendency for higher self-rated proficiency participants to report this strategy more frequently is consistent with Nilforoushan et al.'s (2023) finding that metacognitive strategy use is greater among more proficient EFL readers. However, since proficiency in the present study was based on self-report rather than formal assessment, this pattern should be

interpreted as an exploratory observation rather than a definitive developmental claim. Future research using standardized proficiency measures would be needed to confirm whether grammatical inferencing is consistently associated with higher proficiency levels in EFL reading contexts.

Re-Reading and Structural Re-Parsing

Twenty participants reported habitual re-reading triggered specifically by grammatical complexity rather than unknown vocabulary. They described returning to a sentence to attempt an alternative structural parsing when their initial reading produced a semantically implausible interpretation, characterizing reading as an iterative grammatical problem-solving activity.

“Sometimes I read a sentence and the meaning doesn’t make sense. Then I read it again and I try to parse it differently—maybe I identified the subject wrongly the first time. When I re-read, I focus specifically on the grammar.” [P30]

“I re-read complex sentences at least two or three times. Each time I try to understand the structure better. It is like solving a puzzle. The grammar is the puzzle.” [P8]

The characterization of re-reading as grammar-targeted rather than vocabulary-targeted adds nuance to existing strategy literature, which has treated re-reading as a general-purpose compensatory behavior. Mekuria et al. (2024) identified re-reading as a widely used cognitive strategy among EFL university learners in their think-aloud study, which is consistent with the present finding. The recursive processing described by participants—involving multiple passes through the same sentence with progressively refined grammatical interpretations—suggests that for some EFL learners, reading comprehension of syntactically complex text involves iterative grammatical problem-solving rather than single-pass decoding. This pattern may have implications for how reading performance is assessed in timed conditions, where such iterative strategies are constrained by time pressure (Tun-Ju & Tsai, 2025; Soleimani et al., 2022), though this inference goes beyond what the present data can confirm directly.

Proficiency-Differentiated Strategy Shifting

A consistent pattern emerged in which higher-proficiency participants reported more fluent, discourse-level strategies (grammatical inferencing, prediction) while lower-

proficiency participants relied on the more effortful, sentence-level strategies of segmentation and re-reading, reporting these as slow and cognitively taxing.

“I think my grammar is quite strong now, so when I read I don’t really stop to analyze each sentence. I feel the grammar automatically. But I remember when I was a lower level student, I had to consciously think about every sentence structure.” [P2]

“My English grammar is still weak, so I have to be very careful and slow when I read. I break every sentence into small parts because otherwise I get lost. It takes a long time.” [P25]

The pattern in which higher self-rated proficiency participants reported more fluent, discourse-level processing while lower self-rated proficiency participants described more effortful, sentence-level strategy use is consistent with DeKeyser’s (2007) skill acquisition framework, which posits that proceduralized linguistic knowledge becomes more automatic as proficiency develops. P2’s account of no longer needing to consciously analyze grammatical structures—in contrast to P25’s reported effortful sentence-by-sentence processing—illustrates this contrast at the level of participant experience. These findings are also consistent with Vongsawath et al. (2025) observation that EFL learners with limited grammatical resources face greater difficulty in deploying reading strategies efficiently. It is important to note, however, that proficiency in this study was self-classified rather than formally assessed, and the observed pattern reflects participants’ own perceptions of their reading processes rather than independently verified proficiency differences. The claim that explicit grammar-integrated reading instruction is most urgently needed at lower proficiency levels is therefore offered as a pedagogically motivated hypothesis warranting further empirical investigation, rather than a conclusion directly supported by the present data (Habók et al., 2024; Maryani, 2023).

Grammatical Challenges Encountered During Reading and Their Impact on Text Understanding

The third research question explored what grammatical challenges EFL learners encounter during reading and how these challenges affect their overall text understanding. Three sub-themes were identified: (a) difficulty with complex and embedded clause structures, (b) challenges with passive constructions and non-canonical sentence orders, and (c) the compounding effect of grammatical and vocabulary gaps on global comprehension.

Difficulty with Complex and Embedded Clause Structures

Twenty-three participants identified multi-clause sentences with embedded relative clauses as the primary source of reading difficulty. Participants described the characteristic experience of losing the main proposition within a matrix of embedded information, a cognitive maze effect that disrupted global text comprehension.

“When a sentence has many clauses inside other clauses, I lose the main idea. By the time I reach the end of the sentence, I have forgotten what the beginning was saying. It is like a maze.” [P16]

“Relative clauses are the most difficult for me. When there is a ‘which’ clause inside a ‘which’ clause, I cannot tell which noun is being modified by which clause. I have to draw a diagram in my head.” [P4]

Think-aloud data confirmed that embedded relative clauses and sentences with delayed main verbs produced the longest reading pauses, the most frequent re-reading episodes, and the highest rates of self-reported comprehension uncertainty across all participants.

In the EFL context, Vongsawath et al. (2025) identified convoluted syntactic patterns as a primary reading barrier, and Zheng et al.'s (2023) meta-analysis confirmed that the grammar–comprehension relationship strengthens as text complexity increases. The present learner accounts provide experiential texture to these quantitative findings that participants described the experience of losing track of the main proposition within multi-clause sentences—a reported phenomenon consistent with what psycholinguistic research associates with increased processing demands in complex sentence structures (Wulandari et al., 2026). While the present qualitative data cannot confirm the specific cognitive mechanisms involved, participants’ accounts suggest that embedded clause structures create a felt sense of comprehension overload that disrupts global text understanding. This points toward clause-level grammatical parsing practice embedded in authentic academic reading tasks as a pedagogically motivated priority, though experimental studies would be needed to confirm its effectiveness.

Challenges with Passive Constructions and Non-Canonical Sentence Orders

Nineteen participants reported difficulty with passive voice constructions, particularly agentless passives and passives embedded within complex sentences. Participants demonstrated awareness of passive form without having developed reliable thematic role

assignment capacity, a gap between declarative grammatical knowledge and its functional deployment in reading contexts.

“In passive sentences, especially when there is no ‘by’ phrase, I sometimes don’t know who is doing the action. I know it is passive because of the verb form, but I get confused about who is responsible for what.” [P13]

“When the sentence starts with ‘It is’ or ‘There are’, I sometimes think the subject is ‘It’ or ‘There’ and then the whole sentence doesn’t make sense. I have to remind myself that the real subject comes later.” [P20]

The gap between form recognition and functional deployment revealed in these accounts is consistent with what Kord et al. (2025) describe as a limitation of decontextualized grammar instruction: when grammar is taught primarily as a formal rule system, learners may acquire declarative knowledge—such as recognizing passive form—without developing the procedural capacity to deploy that recognition for comprehension purposes in authentic reading contexts. Ghorianfar et al.'s (2026) study similarly found that passive voice difficulties were associated with limited exposure to passive constructions in authentic communicative contexts, supporting the argument for grammar-integrated reading instruction using authentic academic texts in which passive constructions serve real argumentative and rhetorical functions. Addressing this challenge likely requires not only additional exposure to passive form but tasks that demand the functional application of passive recognition to meaning-making within context (Nadya et al., 2024; Surahmat et al., 2025).

Compounding Effect of Grammatical and Vocabulary Gaps on Global Comprehension

Eighteen participants described a qualitatively distinct comprehension failure when grammatical uncertainty and vocabulary gaps co-occurred simultaneously. This was experienced as categorically more severe than either challenge in isolation, characterized by a complete breakdown of the mutual interpretive scaffolding that grammar and vocabulary normally provide for one another.

“When I don’t know a word AND I don’t understand the grammar of the sentence, I feel completely lost. Each problem on its own I can handle sometimes, but when both happen together, I just cannot understand anything and I give up trying to analyze the sentence. [P28]”

“It is like two walls at the same time. Grammar is one wall and vocabulary is another wall. If I can climb one of them, I can maybe figure out the meaning. But if I face both walls together, I cannot get through. [P6]”

The “two walls” metaphor articulated by P6 vividly captures an experience that resonates with the quantitative literature’s account of the grammar–vocabulary relationship in reading comprehension. Hu et al.’s (2022) SEM finding that grammar knowledge exerts both direct and vocabulary-mediated indirect effects on reading comprehension implies that these competencies are not independent but mutually contributing. Participants’ accounts suggest that when both grammatical and lexical resources were simultaneously insufficient, the interpretive support that each ordinarily provides for the other was no longer available—resulting in a reported experience of near-total comprehension breakdown. Whether this interaction is best characterized as additive, multiplicative, or threshold-based is an empirical question that the present qualitative data cannot resolve, and warrants dedicated psychometric investigation. What the present findings do contribute is a learner-experiential account of how this interaction is felt during reading, which complements and enriches the existing quantitative modeling. This lends qualitative support to the argument by Hu et al. (2022) and Qunayeer (2021) for integrated vocabulary–grammar instruction within reading contexts, in which both competencies are developed simultaneously and in direct service of text comprehension.

CONCLUSION

The study showed that EFL learners perceived grammatical knowledge as both a meaning-construction resource and a source of reading confidence. They used grammar through subject–verb identification, syntactic segmentation, structural re-parsing, and inference based on grammatical and discourse cues. Embedded clauses, passive constructions, and the simultaneous presence of grammar and vocabulary difficulties were perceived as major barriers to comprehension. These findings support the integration of grammar analysis into meaningful reading activities rather than isolated form-focused exercises.

The findings should be interpreted within the study's single-institution context and its reliance on verbal and reflective data. The study did not objectively measure grammar proficiency or reading gains. Future research should therefore combine qualitative process data with standardized grammar and reading measures and examine grammar-mediated strategy use across texts and proficiency levels.

REFERENCES

- Braun, V., & Clarke, V. (2022). *Thematic analysis: A practical guide*. SAGE Publications.
- Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.
- DeKeyser, R. M. (2007). *Practice in a second language: Perspectives from applied linguistics and cognitive psychology*. Cambridge University Press.
- Gebremariam, H. T., & Weldeyohannes, M. Z. (2025). Cultivating students' reading skills: Inspiring reading comprehension and motivation through critical reading strategies. *SAGE Open*, 15(3), 1–17. <https://doi.org/10.1177/21582440251367189>
- Ghorianfar, S. M., Faizy, A., & Wahedi, N. A. (2026). Investigating EFL students' active-to-passive voice errors through the lens of the surface strategy taxonomy. *Journal of Linguistics, Literature and Language Teaching*, 5(2), 112–121.
- Gough, P. B., & Tunmer, W. E. (1986). Decoding, reading, and reading disability. *Remedial and Special Education*, 7(1), 6–10. <https://doi.org/10.1177/074193258600700104>
- Habók, A., Oo, T. Z., & Magyar, A. (2024). The effect of reading strategy use on online reading comprehension. *Heliyon*, 10(e24281), 1–17. <https://doi.org/10.1016/j.heliyon.2024.e24281>
- Hu, T., Sung, Y.-T., Liang, H.-H., Chang, T.-J., & Chou, Y. (2022). Relative roles of grammar knowledge and vocabulary in the reading comprehension of EFL elementary-school learners: Direct, mediating, and form/ meaning-distinct effects. *Frontiers in Psychology*, 13(827007), 1–13. <https://doi.org/10.3389/fpsyg.2022.827007>
- Khasawneh, M. A. S., & Belton, B. (2025). Disclosing the effects of automated feedback on reading comprehension, reading motivation, reading engagement, and reading anxiety through personalized technology-enhanced learning. *Computers in Human Behavior*

- Reports*, 20(October), 100817. <https://doi.org/10.1016/j.chbr.2025.100817>
- Kord, M. A., Samavati, N., Okati, K., & Samavati, K. (2025). The effect of teaching grammar in context on EFL learners' grammar performance. *American Journal of Creative Education*, 8(2), 15–25. <https://doi.org/10.55284/ajce.v8i2.1509>
- Maryani. (2023). Benefits and attitudes of Indonesian university students towards extensive reading activities in learning English grammar. *LLT Journal: A Journal on Language and Language Teaching*, 26(2), 665–679. <https://doi.org/https://doi.org/10.24071/llt.v26i2.6198>
- Mekuria, A., Bushisho, E. W., & Wubshet, H. (2024). The effects of reading strategy training on students' reading strategy use and critical reading ability in EFL reading classes. *Cogent Education*, 11(1), 1–20. <https://doi.org/10.1080/2331186X.2024.2310444>
- Momdjian, L., & Chidiac, F. El. (2025). Impact of optimized professional development and metacognitive reading strategies on EFL students' reading comprehension. *Theory and Practice in Language Studies*, 15(9), 2802–2812. <https://doi.org/https://doi.org/10.17507/tpls.1509.02> Impact
- Munibi, A. Z. (2023). Pengaruh penguasaan kosakata dan tata bahasa terhadap kemampuan membaca Bahasa Inggris. *Edukatif: Jurnal Ilmu Pendidikan*, 5(1), 691–698. <https://doi.org/https://doi.org/10.31004/edukatif.v5i1.4732>
- Nadya, Mertosono, S. R., Dewi, A. K., & Arid, M. (2024). Using authentic materials in improving reading. *English Language Teaching Society*, 12(03), 838–851.
- Nilforoushan, S., Rashtchi, M., & Abbasian, G. R. (2023). Exploring the perceived and real metacognitive reading strategies of Iranian EFL learners: Different text types in focus. *SAGE Open*, 13(1), 1–11. <https://doi.org/10.1177/21582440231164567>
- Prasetia, A. F., Eliza, Roza, V., & Reflinda. (2022). The correlation between students' grammar mastery and students' reading comprehension. *Journal of English Language and Education*, 7(1), 105–113. <https://doi.org/https://doi.org/10.31004/jele.v7i1.244> ?Aldila
- Pratiwi, N. (2019). The correlation between syntactic knowledge and reading comprehension. *Jurnal Pendidikan Humaniora*, 7(2), 53–60. <http://journal.um.ac.id/index.php/jphISSN:2338-8110>

- Purnama, D. R., Nasywa, I., Ray, N. A., & Ismahani, S. (2025). The importance of syntax in understanding English sentence structure: A library research. *Jurnal Mudabbir: Journal Research and Education Studied*, 5(1), 4373–4382. <http://jurnal.permapendis-sumut.org/index.php/mudabbir>
- Qunayeer, H. S. Al. (2021). An investigation of the relationship between reading comprehension, vocabulary knowledge, and English language proficiency level of Saudi EFL learners. *Advances in Language and Literary Studies*, 12(2), 59–69. <https://doi.org/10.7575/aiac.all.v.12n.2.p.59>
- Saengboon, S., Panyaatisin, K., & Toomaneejinda, A. (2022). The roles of grammar in English language teaching: Local viewpoints. *Pasaa*, 63(June), 179–204. <https://doi.org/10.58837/chula.pasaa.63.1.7>
- Sahiruddin. (2019). Textual syntactic complexity and its role in second language reading outcomes in Indonesia. *Journal of English Education and Linguistics Studies*, 6(2), 165–187. <https://doi.org/https://doi.org/10.30762/jeels.v6i2.1268>
- Shi, Y. (2023). How inference making mediates the relation between vocabulary knowledge and reading comprehension for Chinese EFL middle school students. *English Teaching*, 78(3), 85–104. <https://doi.org/10.15858/engtea.78.3.202309.85>
- Sibarani, B., & Pandia, B. S. (2024). Cognitive process in comprehension of sentence propositions among the undergraduate EFL students. *KOLITA: Konferensi Linguistik Tahunan Atma Jaya*, 22(Prosiding KOLITA 22), 45–51. <https://doi.org/10.25170/kolita.22.5961>
- Siregar, T. (2025). *Cognitive Load Theory (CLT)* (A. M. Pratiwi (ed.)). PT Tujuh Pustakan
- Soleimani, H., Mohammaddokht, F., & Fathi, J. (2022). Exploring the effect of assisted repeated reading on incidental vocabulary learning and vocabulary learning self-efficacy in an EFL context. *Frontiers in Psychology*, 13(Article 851812), 1–11. <https://doi.org/10.3389/fpsyg.2022.851812>
- Surahmat, Z., Majid, A. R., Agnez, Hadija, S., & Wanner, P. J. (2025). The impact of contextual authentic materials on reading comprehension among vocational high school learners. *Jurnal Iqra' : Kajian Ilmu Pendidikan*, 10(3), 257–269. <https://doi.org/10.25217/ji.v10i3.6073>

- Tun-Ju, & Tsai. (2025). A comparative study on the use of four reading strategies in English reading across humanities and science disciplines. *World Journal of Advanced Research and Reviews*, 27(1), 1511–1521. <https://doi.org/10.30574/wjarr.2025.27.1.2325>
- Vongsawath, K., Prasitiwi, Y., & Hidayat, N. (2025). EFL learners' reading comprehension challenges and strategies: A case study of Champasack University in Laos. *Journal of English Language Teaching and Linguistics*, 10(1), 11–25. <https://doi.org/http://dx.doi.org/10.21462/jeltl.v10i1.1495>
- Wulandari, R., Khairunnisa, Nasution, M. H. R., & Lubis, Y. (2026). Cognitive load and sentence processing: How EFL learners comprehend complex clauses in academic texts. *International Journal Multidisciplinary Science*, 5(1), 07–15. <https://doi.org/10.56127/ijml.v5i1.2499>
- Yousefpoori-Naeim, M. (2025). The grammar puzzle: Does grammar help reading comprehension? *TESL Canada Journal*, 42(1), 173–182. <https://doi.org/https://doi.org/10.18806/tesl.v42i1/1426>
- Zaka, M., Tahir, A., Bibi, S., & Abbas, A. (2026). Decoding sentences: The impact of syntax awareness on reading comprehension of EFL learners in Pakistani universities. *Contemporary Journal of Social Science Review*, 04(01), 1–15.
- Zheng, H., Miao, X., Dong, Y., & Yuan, D. C. (2023). The relationship between grammatical knowledge and reading comprehension: A meta-analysis. *Frontiers in Psychology*, 14(March), 1–13. <https://doi.org/10.3389/fpsyg.2023.1098568>
- Zhou, J. (2022). The effects of syntactic awareness to L2 Chinese passage-level reading comprehension. *Frontiers in Psychology*, 12(783827), 1–9. <https://doi.org/10.3389/fpsyg.2021.783827>
- Zhou, Q., Du, F., Lu, Y., Wang, H., Herman, & Yang, S. (2024). The development of reading comprehension ability of Chinese Heritage Language (CHL) learners in Indonesia. *Language Testing in Asia*, 14(7), 1–26. <https://doi.org/10.1186/s40468-024-00276-2>