



Emotion, Cognition, and Comprehension: A Psycholinguistic View in EFL Classrooms

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Abstract. *This study investigates the interconnected roles of emotion and cognition in shaping comprehension processes within EFL classrooms from a psycholinguistic perspective. Using a qualitative design involving classroom observations, semi-structured interviews, and document analysis, the research reveals that learners' emotional states significantly influence their attentional control, working memory function, and overall ability to construct meaning. Positive emotions such as confidence and curiosity enhance cognitive efficiency, while negative emotions, particularly anxiety, disrupt processing and lead to superficial comprehension. The findings also highlight the importance of classroom environment, showing that supportive teacher interactions and collaborative peer engagement foster emotional comfort and facilitate deeper comprehension. In contrast, evaluative or high-pressure tasks trigger emotional tension that restricts cognitive readiness. Additionally, learners' emotion regulation strategies play a critical role in sustaining engagement during challenging tasks. Overall, the study underscores that comprehension in EFL settings is a dynamic interaction between affective states, cognitive mechanisms, and classroom conditions. These insights call for pedagogical approaches that integrate emotional awareness to enhance learners' cognitive performance and meaning-making abilities.*

Keywords: *emotion, cognition, comprehension, psycholinguistics, EFL classroom*

1. INTRODUCTION

The growing recognition that language learning is not merely a cognitive activity but also an affective experience has reshaped the way scholars understand comprehension processes in EFL classrooms. As learners engage with new linguistic input, their emotional states interact with attentional mechanisms, working memory, and higher-order processing, ultimately shaping how meaning is constructed. Contemporary psycholinguistic perspectives highlight that comprehension emerges from a dynamic interplay between mental representations and situational factors that influence the learner's readiness to process information (Alduais et al., 2022). In many EFL contexts, classroom environments present linguistic challenges that require sustained cognitive effort, and learners' emotional responses whether supportive or disruptive can significantly modulate the efficiency with which they process language (Thuy et al., 2025).

These intertwined processes become especially evident when students encounter complex texts, unfamiliar vocabulary, or tasks requiring rapid integration of linguistic cues. Emotional factors such as interest, anxiety, confidence, and empathy operate alongside cognitive systems responsible for attention, working memory, and inferencing. When learners feel comfortable and supported, they tend to allocate cognitive resources more effectively,

enabling deeper engagement with textual meaning (Zhang & Xu, 2025). Conversely, emotions like fear of failure, frustration, or excessive stress may limit cognitive flexibility and disrupt the mental operations necessary for comprehension. This suggests that meaning-making in language classrooms is neither linear nor solely dependent on linguistic proficiency; rather, it is embedded in the learner's psychological state at the moment of processing.

Recent discussions in psycholinguistics emphasize how comprehension involves the continuous coordination of emotional activation and cognitive load (Qizi, 2024). For instance, positive emotional arousal can stimulate broader attentional scopes and heighten sensitivity to contextual cues, allowing learners to interpret information more holistically (Kralova et al., 2021). On the other hand, cognitive overload, often triggered by negative emotions or task difficulty, can restrict working memory capacity and hinder the construction of coherent mental models (Brockbank & Feldon, 2024). Such interdependence highlights the need to view comprehension as an adaptive process, shaped by the learner's internal states as much as by external instructional practices.

In many EFL classrooms, however, instructional designs tend to privilege cognitive aspects of comprehension strategy instruction, decoding, inference-making while overlooking the subtler emotional influences that quietly shape processing outcomes (Al-Mahrooqi & Roscoe, 2012). Han et al. (2023) argued classroom realities show that students often fluctuate between enthusiasm and apprehension, depending on the text type, the classroom atmosphere, or the social dynamics of peer interaction. These fluctuations can either amplify or obstruct their cognitive engagement. Thus, understanding the emotional contours that accompany cognitive activity becomes crucial when attempting to interpret why learners comprehend at differing levels, even when exposed to similar input (Macheta et al., 2023).

Furthermore, the sociocultural dimension of the classroom context adds an additional layer to this complex relationship. Peer relations, teacher feedback styles, and the perceived safety of participating in classroom discourse can all activate emotional responses that directly affect cognitive processing (Valiente et al., 2020). A supportive environment may foster risk-taking and deeper comprehension, whereas a tense or overly evaluative atmosphere may limit learners' willingness to engage meaningfully with the material. Through this lens, comprehension becomes a socially situated act, mediated by emotional resonance and cognitive readiness.

The continuing integration of psycholinguistics into language education research provides a powerful framework for interpreting these relationships. By examining how learners' emotional states intersect with cognitive mechanisms during comprehension tasks,

researchers deepen our understanding of the conditions that promote or inhibit meaning-making. This offers insights not only into the internal processes guiding learners' mental activity but also into how classroom practices can be shaped to enhance both emotional well-being and cognitive effectiveness. Ultimately, exploring the intricate ties between emotion, cognition, and comprehension contributes to a more holistic understanding of how learners construct meaning, adapt to linguistic challenges, and engage with the learning experience in EFL settings.

2. LITERATURE REVIEW

The relationship between emotion, cognition, and comprehension has attracted increasing scholarly attention as researchers attempt to understand how learners negotiate meaning within complex linguistic environments (Malau & Damanik, 2025). Earlier views that positioned comprehension as a purely cognitive act have gradually shifted toward integrative frameworks that recognize the significance of emotional and situational factors. Current perspectives suggest that the interplay between affective states and cognitive processes forms the foundation of how learners interpret input, sustain attention, and construct mental representations (Mangaroska et al., 2021). To contextualize this study, the following review outlines key theoretical insights from psycholinguistics and research on affective influences in second language comprehension.

2.1. Psycholinguistic Perspectives on Cognition and Comprehension

Psycholinguistics views comprehension as a multi-layered process that involves decoding linguistic cues, integrating them with prior knowledge, and constructing coherent mental models of meaning (Eskawati et al., 2023). Foundational theories from Pezzulo (2007) highlight the central role of working memory, as it allows learners to temporarily store and manipulate incoming linguistic information. The efficiency of working memory directly affects how learners infer meaning, link propositions, and maintain coherence throughout the reading or listening process. Moreover, attentional control determines which parts of linguistic input receive priority during processing, shaping the depth and accuracy of comprehension.

Recent psycholinguistic models also emphasize interactive processing, wherein bottom-up decoding and top-down prediction operate simultaneously. In EFL contexts, this interaction can be disrupted when learners encounter unfamiliar vocabulary or syntactic structures, leading to increased cognitive load (Jiang, 2024). This strain on cognitive resources often reduces the

capacity for inferencing and slows down meaning integration. Furthermore, contemporary discourse explores how comprehension is sensitive to context, suggesting that learners' interpretations of texts are shaped not only by linguistic competence but also by the situational environment in which processing occurs.

Another important development within psycholinguistic research is the exploration of how neural responses underlie comprehension. Studies using eye-tracking and neurocognitive measures demonstrate that emotional and cognitive responses activate overlapping neural pathways, supporting the argument that comprehension is inherently influenced by affective engagement (Mangaroska et al., 2021). These findings strengthen the proposal that comprehension cannot be understood solely through cognitive mechanisms but must include an appreciation of how emotional signals modulate attention, prediction, and memory functions during language processing.

2.2. The Affective Dimension of EFL Comprehension

The affective domain plays a vital role in shaping learners' engagement with language tasks, particularly in EFL settings where anxiety, confidence, motivation, and interest frequently fluctuate. A substantial body of research shows that emotions can either facilitate or impair comprehension depending on how they influence cognitive readiness. Positive emotions, such as enjoyment and curiosity, tend to broaden attentional scope and enhance memory retrieval, allowing learners to process textual information more holistically. These emotional states often encourage persistence, deeper engagement, and greater willingness to interact with complex material (Fredrickson & Branigan, 2005).

Conversely, negative emotions especially anxiety have been shown to restrict cognitive flexibility and reduce working memory capacity. Language anxiety, for example, may diminish learners' ability to hold and integrate linguistic information, leading to fragmented interpretations or superficial comprehension. This is particularly evident during high-pressure tasks such as oral presentations or timed reading activities. Emotions like frustration or self-doubt can further intensify cognitive load, making it more difficult for learners to infer meaning or connect new information to existing knowledge (Hajiyeva, 2024).

Classroom dynamics also influence the emotional climate that learners experience. Teacher feedback, peer interactions, and perceived judgment all contribute to emotional responses that shape comprehension outcomes (Thuy et al., 2025). A supportive learning

environment can promote emotional security, enabling learners to take risks and engage more confidently with the linguistic material. On the other hand, rigid or overly evaluative classroom practices may heighten emotional tension, discouraging learners from engaging critically with texts or participating meaningfully in discussions.

Scholarly discourse increasingly calls for integrating emotional awareness into instructional approaches to foster better comprehension. This integration aligns with broader educational psychology frameworks that view learning as a holistic experience shaped by interdependent cognitive and emotional systems. In EFL contexts, recognizing the affective dimension provides insights into why learners with similar proficiency levels may display different comprehension abilities. Ultimately, understanding the emotional undercurrents of EFL comprehension contributes to the development of pedagogical practices that support both the cognitive and affective needs of learners.

3. RESEARCH METHOD

This study employed a qualitative research design to explore how emotional and cognitive processes intersect during comprehension activities in EFL classrooms. The qualitative approach was chosen because it allows for an in-depth examination of learners' internal experiences, classroom behaviors, and meaning-making processes elements that cannot be fully captured through numerical measurement alone (Rustamana et al., 2024). Through this design, the study sought to uncover the subtle ways in which emotional states shape cognitive functioning and influence the construction of meaning when learners engage with language tasks.

The participants consisted of EFL learners enrolled in intermediate-level classes at a private university. They were selected using purposive sampling to ensure that the individuals included were actively engaged in comprehension-based activities and demonstrated varied emotional and cognitive profiles. Their familiarity with academic texts and regular classroom discussions provided a suitable context for observing the interplay between affective and cognitive dimensions of comprehension. Participation was voluntary, and all individuals were informed about the purpose of the research to ensure transparency and ethical compliance.

Data were collected through three primary techniques: classroom observations, semi-structured interviews, and document analysis. Classroom observations were conducted over several sessions to capture real-time emotional reactions, engagement patterns, attentional shifts, and behavioral indicators of cognitive load during reading and listening activities. The

observations focused on naturally occurring interactions between learners, peers, and teachers as they navigated challenging linguistic material. Semi-structured interviews were carried out with selected participants to gain deeper insights into their perceived emotional experiences, their strategies for managing comprehension difficulties, and how they interpret their cognitive performance during tasks. These interviews enabled learners to articulate their inner processes, which are often inaccessible through observation alone. Additionally, samples of classroom materials, student notes, and reflective journals were analyzed to further contextualize the emotional and cognitive patterns emerging across data sources.

Data analysis followed an interpretative framework that sought to identify recurring themes and patterns connected to learners' emotional states and cognitive engagement. The transcripts and field notes were read multiple times to gain familiarity with the data, after which coding was applied to categorize meaningful units of information. Codes were then organized into broader thematic clusters representing relationships between emotion, attention, working memory, and comprehension outcomes. The analysis emphasized interpreting the learners' subjective perspectives while linking them to psycholinguistic concepts relevant to comprehension processes.

To ensure the credibility of the findings, triangulation was applied by comparing information gathered from observations, interviews, and document analysis. This approach made it possible to validate emerging themes and reduce the influence of researcher bias. Throughout the research, ethical procedures such as anonymity, confidentiality, and informed consent were strictly upheld to protect participants' rights and maintain the integrity of the study. Overall, the methodological process allowed for a comprehensive exploration of how emotions intersect with cognitive mechanisms during comprehension tasks. By examining learners' real-time behaviors, reflective accounts, and cognitive strategies, the research provides a nuanced understanding of the psycholinguistic factors shaping comprehension in EFL classroom settings.

4. FINDING AND DISCUSSION

The analysis of observational data, interviews, and classroom documents revealed a complex and dynamic interplay between emotional states and cognitive processes during comprehension activities in the EFL classroom. Across the learning sessions, students demonstrated varying levels of engagement, attentional control, and comprehension outcomes

that closely corresponded to their emotional responses to the tasks. These findings highlight that comprehension is not merely a cognitive act of decoding linguistic input but a layered interaction shaped by learners' psychological conditions, classroom atmosphere, and moment-to-moment emotional fluctuations.

Observations showed that students experiencing positive emotions—such as interest, curiosity, or a sense of accomplishment—displayed greater attentional stability when engaging with reading and listening tasks. These students were more likely to maintain focus while processing complex sentences, predicting meaning from context, and connecting new information with prior knowledge. Their body language, participation, and willingness to engage in follow-up discussions indicated strong cognitive readiness. Teachers' supportive feedback, humorous remarks, and empathetic tone often triggered these positive states, creating an environment where students felt comfortable navigating linguistic ambiguity. In such moments, learners processed texts more efficiently and showed higher levels of inferencing accuracy, suggesting that emotional comfort facilitates deeper cognitive engagement.

In contrast, the data revealed that negative emotional states consistently disrupted comprehension. Students who expressed anxiety, frustration, or embarrassment demonstrated reduced attentional control. During challenging reading tasks, these students exhibited frequent pauses, hesitations, and tendencies to jump between sentences without fully processing the text. Their interview responses confirmed that anxiety led to mental blocks, preventing them from holding information in working memory long enough to construct coherent meaning. Some students described how fear of making mistakes inhibited their ability to ask for clarification or share interpretations, further restricting cognitive processing. This tension was most evident during oral discussions, where anxious learners often limited their contributions, despite demonstrating adequate linguistic competence in their written work.

Another key finding relates to how learners' emotional responses fluctuated depending on the type of task and classroom context. Collaborative tasks tended to generate more positive emotions, as peer support reduced the pressure of individual performance. Students reported feeling more confident when interpreting texts in small groups, allowing them to distribute cognitive effort and validate their understanding through shared discussion. On the other hand, high-stakes tasks—such as timed comprehension exercises or teacher-centered questioning—commonly triggered anxiety. These moments intensified the cognitive load, making it difficult for learners to integrate textual information or interpret discourse markers effectively. Thus, emotional safety appeared to play a crucial role in determining how much cognitive capacity learners could allocate to meaning-making.

The analysis also revealed distinct patterns in how learners use emotional regulation strategies to manage comprehension difficulties. Some students engaged in self-talk or deep breathing to reduce anxiety, which helped them regain cognitive control when decoding challenging passages. Others relied on peers for reassurance or validation, demonstrating the social dimension of emotional regulation. However, a portion of the participants admitted to withdrawing from tasks when overwhelmed, indicating that ineffective regulation strategies could lead to disengagement and poorer comprehension outcomes. These patterns highlight that emotional regulation is not only an affective skill but also a cognitive facilitator that determines whether learners can sustain the mental effort required for complex language processing.

Finally, the findings underscore the importance of the teacher's role in shaping the emotional climate of the classroom. Teachers who adopted encouraging tones, acknowledged student effort, and provided scaffolding reduced emotional barriers to comprehension. Conversely, abrupt corrections or rigid teaching styles appeared to increase anxiety, limiting students' willingness to take cognitive risks. The data consistently demonstrated that when learners felt emotionally supported, their cognitive performance improved, allowing them to interpret texts more coherently and participate more meaningfully in class discussions.

The findings of this study reaffirm that comprehension in EFL classrooms is not merely an outcome of decoding linguistic input but a psychological process shaped by the continuous interaction between emotional conditions and cognitive mechanisms. Learners' comprehension abilities shifted noticeably according to their emotional states, indicating that the human mind does not process language in a vacuum. Instead, comprehension emerges from a dynamic system that integrates affective signals, attentional control, and working memory operations. These relationships emphasize the need to revisit traditional comprehension models that prioritize cognitive strategies while underestimating the emotional architecture that supports or constrains cognitive performance.

Moreover, the classroom environment proved influential in shaping how learners experienced both emotional comfort and cognitive readiness. Supportive practices from teachers and collaborative interactions among peers contributed significantly to emotional stability, which in turn enhanced the cognitive flexibility required for deeper comprehension. Conversely, anxiety-inducing tasks or classroom dynamics created emotional barriers that hindered learners' access to cognitive resources, resulting in fragmented or superficial processing. These observations align with broader psycholinguistic and educational

psychology frameworks, suggesting that comprehension cannot be fully understood without acknowledging the interdependence between cognition and emotion.

4.1. Emotional States as Determinants of Cognitive Efficiency

The first major point emerging from the study is that emotional states act as primary determinants of how efficiently learners process linguistic information. Positive emotions, such as curiosity and confidence, were consistently associated with improved attentional focus, increased working memory availability, and heightened inferential accuracy. These findings support theories such as the broaden-and-build framework, which argues that positive affect expands cognitive resources and promotes flexible thinking. In the context of EFL comprehension, this expansion manifested in learners' ability to maintain sustained attention and to integrate textual cues into coherent mental models.

Conversely, negative emotions particularly anxiety constricted learners' cognitive pathways (Hajiyeva, 2024). The data showed clear patterns of reduced working memory function during moments of emotional distress, consistent with psycholinguistic views that anxiety interferes with phonological processing and reduces the capacity to hold information temporarily. The learners' self-reports revealed that anxiety triggered mental blocks, making it difficult to decode meaning even when they possessed the linguistic competence to do so. These reactions confirm that emotional arousal can overload the cognitive system, leaving fewer resources available for crucial comprehension processes such as prediction, monitoring, and inference-making.

These findings challenge instructional models that treat comprehension as a skill isolated from emotional realities. Instead, they highlight that emotional management is intrinsic to cognitive performance. Whether learners can regulate their emotions becomes a determining factor in how effectively they process linguistic input. This suggests that comprehension is not solely an intellectual activity but a psychologically coordinated act requiring emotional stability as a foundation for cognitive efficiency.

4.2. Classroom Environment and Its Role in Mediating Comprehension

The classroom environment emerged as a central mediator in how learners' emotional and cognitive systems interacted. A supportive environment characterized by encouraging teacher feedback, collaborative discussion, and opportunities for low-pressure engagement contributed to emotional safety (Valiente et al., 2020). In these conditions, learners demonstrated more resilience in handling complex texts, and their comprehension processes were noticeably smoother. The social dimension of emotion became particularly evident in

collaborative tasks, where peer interaction distributed cognitive load and increased emotional assurance. Learners felt more confident sharing interpretations, testing their hypotheses, and negotiating meaning within a group dynamic.

In contrast, environments perceived as evaluative or rigid generated emotional discomfort, which directly impaired comprehension. High-stakes tasks often triggered performance anxiety, narrowing attentional bandwidth and disrupting meaning integration. For some learners, the fear of making mistakes overshadowed their cognitive capacity, leading them to withdraw from engagement even when they had previously demonstrated competence. These patterns reinforce the notion that comprehension is situated not only in the learner's internal processes but also within the social ecology of the classroom.

The findings demonstrate that pedagogical choices significantly shape the emotional climate. Teachers who show empathy, recognize effort, and model patience contribute to emotional conditions that facilitate comprehension. On the other hand, abrupt corrections, rushed pacing, or overly formal interactions risk activating negative emotional responses that suppress cognitive performance. Thus, classroom practices must be examined not only in terms of instructional clarity but also in terms of emotional influence. A classroom that prioritizes emotional safety is more likely to cultivate the cognitive readiness necessary for sustained comprehension.

4.3. The Interdependence of Emotion Regulation and Meaning-Making

The third key insight from the findings concerns the role of emotion regulation as an essential component of comprehension. Learners varied significantly in their ability to manage emotional responses during challenging tasks, and this variation directly influenced their cognitive functioning. Those who employed effective regulation strategies such as self-talk, deep breathing, or seeking peer reassurance were better able to regain cognitive control when facing comprehension difficulties. These strategies allowed them to redirect attention, stabilize working memory, and continue processing textual information.

However, a subset of learners demonstrated poor emotional regulation, resulting in withdrawal or disengagement. For these learners, emotional overload led to immediate cognitive shutdown, blocking the processes necessary for decoding and integrating meaning. This highlights that emotional regulation should not be treated as an isolated psychological skill but as a cognitive facilitator crucial for sustaining engagement in complex linguistic activity.

The interplay between emotion regulation and comprehension aligns with emerging views in psycholinguistics that describe language processing as an adaptive system. Learners continuously respond to internal cues (such as anxiety or confidence) while adjusting to external demands (such as task complexity or teacher expectations). Meaning-making, therefore, is a negotiated act that requires coordinated emotional and cognitive effort. These findings also reinforce the importance of teaching learners explicit emotional regulation strategies to support their comprehension processes. When learners gain awareness of how their emotions shape cognitive performance, they become more capable of navigating challenging linguistic tasks.

5. CONCLUSION

This study highlights that comprehension in EFL classrooms is best understood as an integrative process shaped by the dynamic interplay between emotional states and cognitive mechanisms. The findings demonstrate that learners' attentional control, working memory capacity, and overall meaning-making ability fluctuate according to their emotional conditions. Positive emotions foster cognitive flexibility, allowing learners to sustain focus, process linguistic information more deeply, and engage more confidently during comprehension activities. In contrast, anxiety, frustration, and other negative emotions restrict cognitive pathways, often leading to superficial processing and disengagement. The classroom environment also plays a central role in shaping these emotional and cognitive interactions. Supportive teacher behavior, collaborative peer dynamics, and emotionally safe learning spaces consistently enhanced learners' ability to interpret texts effectively. Meanwhile, high-pressure tasks or overly evaluative climates heightened emotional tension, limiting cognitive performance regardless of learners' actual linguistic proficiency. These patterns indicate that instructional designs must consider the emotional dimension as an inherent part of comprehension, rather than an external factor. Additionally, the study reveals that emotion regulation skills are essential in sustaining cognitive readiness during language tasks. Learners who managed their emotional responses effectively demonstrated stronger resilience and better comprehension outcomes. This underscores the need for pedagogical approaches that help students recognize and regulate their emotional states as part of their language learning process. Comprehension in EFL settings emerges not simply from linguistic ability but from the alignment of emotional stability, cognitive preparedness, and supportive learning conditions. By acknowledging this interdependence, educators can create classroom environments that

nurture both affective well-being and cognitive growth, ultimately strengthening learners' capacity to construct meaningful understanding from linguistic input.

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