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DEVELOPING STUDENTS' READING COMPETENCE THROUGH COGNITIVE COGNITIVE STRATEGIES

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Abstract: Reading competence represents a fundamental dimension of second language proficiency and is closely linked to learners' academic success. Contemporary theoretical research emphasizes that effective reading extends beyond linguistic decoding and requires the activation of cognitive strategies that facilitate constructing meaning, integrating textual information, and sustaining comprehension. This article synthesizes key theoretical perspectives on how cognitive strategies contribute to the development of reading competence, drawing on foundational models such as schema-driven processing and the Construction-Integration framework. The analysis highlights the central role of strategies such as predicting, inferencing, elaboration, and summarizing in enabling learners to process texts more efficiently and accurately. It also clarifies the distinction between automatic reading skills and deliberate cognitive operations, demonstrating that strategic engagement enhances readers' ability to interpret, evaluate, and retain written information. The findings suggest that integrating cognitive strategy instruction into reading pedagogy can significantly support the development of higher-order comprehension abilities in EFL contexts and provide a theoretical foundation for designing cognitively informed instructional approaches.

Key words: reading competence; cognitive strategies; reading comprehension; cognitive processing; schema activation; strategy-based learning; text interpretation; EFL reading; comprehension models; academic reading development

INTRODUCTION

Reading competence is widely regarded as a foundational component of second language proficiency, encompassing a complex interplay of linguistic knowledge, cognitive processing, and strategic engagement with written texts. Contemporary scholars consistently emphasize that reading is not a passive act of recognizing words but an active, constructive process in which readers draw on prior knowledge, interpret textual cues, and integrate new information into coherent mental representations. Within this perspective, cognitive strategies serve as critical mechanisms that support the construction and refinement of meaning during comprehension. As Grabe and Stoller note, successful reading requires the coordination of multiple processes that extend beyond vocabulary and grammar to include strategic interpretation and integration of textual information [1].

The theoretical basis for understanding how learners build meaning during reading is grounded in cognitive models such as the Construction-Integration framework, which



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posits that comprehension emerges through the formation of propositions and their integration into a unified mental structure [2]. Complementing this approach, schema theory highlights the centrality of background knowledge in shaping how readers interpret and evaluate textual information, proposing that schemata guide the allocation of cognitive resources and influence the interpretation of new input [3]. These models collectively underscore that comprehension is inseparable from the cognitive strategies that activate relevant knowledge, make inferences, and organize information.

Within the field of second language acquisition, cognitive strategy research further clarifies how learners consciously manipulate linguistic input to enhance comprehension. The foundational taxonomy proposed by O'Malley and Chamot defines cognitive strategies as purposeful mental operations-including inferencing, elaboration, repetition, and translation-that directly contribute to the processing of textual material [4]. Oxford additionally expands on this perspective by presenting cognitive strategies as goal-oriented behaviors that enable learners to manage and transform linguistic information effectively [5]. These insights suggest that reading competence develops not solely through automatic skill acquisition but through deliberate engagement with cognitive processes that facilitate deeper comprehension.

Research in reading pedagogy similarly highlights the importance of strategic instruction. Pressley argues that effective reading instruction integrates strategy teaching with opportunities for students to apply cognitive procedures during authentic reading tasks, thereby strengthening comprehension processes [6]. Anderson's work further demonstrates that learners who employ cognitive and metacognitive strategies flexibly achieve higher comprehension outcomes, emphasizing the role of strategic awareness in guiding reading behavior [7]. The distinction between reading skills and reading strategies, clarified by Afflerbach, Pearson, and Paris, reinforces the idea that competence encompasses both automatic and strategic dimensions, each contributing to the overall effectiveness of comprehension [8]. Studies examining strategy use in EFL contexts, such as the work of Zare and Othman, show consistent evidence that strategic engagement supports improved comprehension and more effective interaction with text [9].

Collectively, these theoretical perspectives converge on the view that cognitive strategies are integral to the development of reading competence. They provide learners with tools for processing information efficiently, constructing meaning, and managing the cognitive demands of text interpretation. As Nation emphasizes, balanced reading instruction that incorporates strategic guidance can significantly strengthen learners' ability to engage with written material in a meaningful and informed manner [10]. This theoretical synthesis underscores the necessity of embedding cognitive strategy instruction within reading pedagogy to support the development of higher-level comprehension and foster independent, capable readers.

METHODS

This study employs a qualitative, theory-oriented research design aimed at synthesizing foundational and contemporary perspectives on the role of cognitive strategies in the development of reading competence. Given the conceptual nature of the

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inquiry, the methodology centers on an in-depth analysis of authoritative scholarly works in reading research, cognitive psychology, and second language acquisition. The methodological approach aligns with established practices in theoretical and narrative reviews, in which existing knowledge is systematically examined to generate an integrated conceptual understanding rather than empirical findings.

The selection of sources was guided by several criteria. First, priority was given to seminal works that have significantly shaped theoretical discussions in the field, such as comprehensive models of reading comprehension and foundational classifications of learning strategies. Grabe and Stoller's comprehensive overview of reading processes [1], Kintsch's Construction-Integration model of comprehension [2], and Rumelhart's exposition of schema theory [3] were selected due to their enduring influence on theoretical conceptualizations of reading. Second, works that systematically classify and explain cognitive learning strategies, including the frameworks developed by O'Malley and Chamot [4] and later expanded by Oxford [5], were included to provide depth to the analysis of cognitive processing during reading.

In addition to foundational texts, the review incorporated theoretical and pedagogical analyses that clarify the instructional relevance of cognitive strategies. Pressley's work on balanced literacy instruction [6] and Anderson's examination of strategic awareness in EFL contexts [7] were selected for their contributions to understanding how strategy use supports comprehension in pedagogical settings. Moreover, studies that differentiate between reading skills and strategies, such as the conceptual analysis provided by Afflerbach, Pearson, and Paris [8], were included to refine the distinctions relevant to reading competence. Research exploring the theoretical relationship between strategy use and comprehension, including the work of Zare and Othman [9], further informed the synthesis. Nation's account of reading instruction principles offered additional grounding for the pedagogical implications of strategy-based reading development [10].

The analytical procedure followed a thematic synthesis approach. First, key theoretical constructs related to reading competence were identified and compared across sources. Second, classifications and definitions of cognitive strategies were examined to establish conceptual consistency. Third, cognitive models of comprehension were analyzed to determine how strategic behavior mediates meaning construction. Finally, themes emerging across authors-such as schema activation, inferential processing, and the interplay between automatic skills and strategic operations-were integrated into a unified theoretical perspective. This method enabled the development of a coherent conceptual model that captures the role of cognitive strategies in shaping reading competence within second language contexts.

RESULTS

The analysis of the selected theoretical sources reveals several converging themes that collectively clarify the role of cognitive strategies in developing reading competence. The first prominent finding concerns the multidimensional nature of reading competence itself. Across the reviewed literature, reading competence is consistently described as a

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complex construct involving the interaction of linguistic knowledge, cognitive processing, and strategic engagement. Grabe and Stoller emphasize that comprehension emerges from the coordination of multiple processes that integrate vocabulary knowledge, syntactic parsing, textual interpretation, and cognitive operations necessary for constructing meaning [1]. This conceptualization underscores that reading competence extends beyond basic decoding to include higher-level interpretive functions.

A second key finding relates to the central role of cognitive models in explaining how readers construct and integrate meaning. Kintsch's Construction-Integration model provides a detailed explanation of how readers develop mental representations of text through iterative processes of proposition formation and integration [2]. This cognitive framework aligns closely with schema theory, which posits that comprehension is mediated by the activation and application of background knowledge structures that guide the interpretation of new information [3]. Together, these models show that effective comprehension depends on readers' ability to apply cognitive strategies that support the activation of schemata, inference-making, and the integration of textual elements into coherent mental structures.

The third finding concerns the conceptualization and classification of cognitive strategies themselves. Within second language acquisition research, cognitive strategies are consistently defined as deliberate mental operations that enable learners to manipulate linguistic information in order to support comprehension. The taxonomy introduced by O'Malley and Chamot-comprising strategies such as inferencing, elaboration, summarization, and repetition-provides a foundational understanding of how these processes function during reading [4]. Oxford extends this classification by framing cognitive strategies as purposeful, goal-oriented behaviors that facilitate information processing and textual understanding [5]. These perspectives establish a theoretical basis for linking cognitive strategy use to the development of reading competence.

A fourth central theme identified in the literature concerns the relationship between strategic engagement and comprehension outcomes. The works of Pressley highlight that instruction in cognitive strategies significantly enhances learners' ability to interact with texts in meaningful ways, particularly when strategies are embedded within authentic reading tasks [6]. Anderson's findings further emphasize that strategic awareness and the flexible use of cognitive and metacognitive strategies are associated with more effective comprehension among EFL learners [7]. This relationship is reinforced by Afflerbach, Pearson, and Paris, who argue that reading competence relies on both the automaticity of skills and the conscious use of strategies, each contributing distinct but complementary functions to the comprehension process [8]. Studies examining learner populations in EFL contexts, such as the analysis by Zare and Othman, provide additional evidence that the strategic use of cognitive procedures correlates with improved comprehension performance [9].

Finally, a fifth finding concerns the pedagogical implications that emerge from these theoretical perspectives. Nation's work on reading instruction demonstrates that balanced literacy approaches incorporating meaning-focused input and strategic

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engagement can substantially support the development of reading competence in second language learners [10]. The reviewed literature consistently indicates that cognitive strategies play a foundational role in enabling learners to process, interpret, and evaluate written texts effectively. Consequently, the integration of cognitive strategy instruction emerges as a theoretically grounded approach to enhancing reading competence within EFL pedagogy.

DISCUSSION

The synthesis of the analyzed literature demonstrates that cognitive strategies constitute an indispensable component of reading competence in second language contexts. The various theoretical models examined collectively reinforce the notion that reading comprehension is fundamentally a meaning-construction activity, one that relies on the interaction of linguistic knowledge, cognitive operations, and strategic decision-making. Grabe and Stoller's model of reading underscores that comprehension involves simultaneous processing at multiple levels, including lexical recognition, syntactic parsing, discourse integration, and higher-level interpretation [1]. This theoretical perspective situates cognitive strategies as essential tools that support the coordination of these processes.

The cognitive mechanisms underlying comprehension are most clearly articulated through models such as Kintsch's Construction-Integration framework, which explains how readers build coherent mental representations by forming propositions and integrating them with existing knowledge structures [2]. Within this model, cognitive strategies serve as procedural mediators that enable readers to identify key propositions, establish relationships among textual elements, and integrate new information with prior knowledge. Schema theory further strengthens this understanding by illustrating how background knowledge structures guide the allocation of cognitive resources during reading and shape the interpretation of incoming information [3]. The activation of schemata through strategies such as predicting and inferencing illustrates the dynamic nature of reading as a cognitive endeavor.

The conceptual clarity provided by strategy taxonomies in the field of second language acquisition is equally significant. O'Malley and Chamot's classification of cognitive strategies—specifically inferencing, elaboration, summarization, and repetition—highlights the deliberate mental actions that contribute to the manipulation and transformation of textual information during reading [4]. Oxford's subsequent refinement of strategy theory emphasizes the intentional, goal-oriented nature of these cognitive operations and underscores their role in promoting effective information processing [5]. These classifications reveal that cognitive strategies do not function as isolated techniques; rather, they constitute an integrated system of operations that collectively contribute to deeper and more accurate comprehension.

The pedagogical implications emerging from this theoretical synthesis are substantial. Pressley's argument that cognitively oriented instruction enhances learners' engagement with text provides strong support for incorporating explicit strategy instruction into reading pedagogy [6]. Anderson's findings regarding the importance of strategic

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awareness further underscore that learners must not only possess cognitive strategies but must also be able to deploy them flexibly and adaptively in response to textual demands [7]. The distinction between reading skills and reading strategies presented by Afflerbach, Pearson, and Paris offers an important conceptual refinement: whereas skills reflect automatic processes that develop through practice, strategies require conscious, intentional application and contribute directly to meaning-making [8]. This differentiation suggests that reading competence requires a balanced integration of automatized processing and deliberate cognitive engagement.

Moreover, research focusing on EFL learners supports the universality of these theoretical claims. Zare and Othman demonstrate that learners who employ cognitive strategies effectively show significantly higher comprehension performance, reinforcing the connection between strategic processing and reading outcomes in foreign language contexts [9]. Nation's framework for reading instruction further illustrates that the development of reading competence is strengthened when learners are provided with opportunities for meaning-focused input, strategy-guided processing, and structured comprehension practice [10]. Taken together, these theoretical perspectives reveal a coherent and compelling understanding of how cognitive strategies contribute to the development of reading competence. Across all reviewed sources, cognitive strategies consistently emerge as foundational mechanisms that support meaning construction, facilitate information integration, and enhance comprehension monitoring. The converging insights indicate that cognitive strategy instruction is not an optional complement to reading pedagogy but rather a necessary component for cultivating independent, proficient readers in second language contexts.

CONCLUSION

The theoretical synthesis presented in this article demonstrates that cognitive strategies play a decisive role in the development of reading competence in second language contexts. Across all reviewed frameworks, reading is consistently conceptualized as an active, cognitively mediated process in which learners construct meaning through the interaction of linguistic knowledge, prior experience, and strategic engagement. The insights offered by Grabe and Stoller highlight the multi-layered nature of comprehension, showing that effective reading depends on the coordinated functioning of linguistic, cognitive, and interpretive processes [1]. Cognitive models such as the Construction-Integration framework and schema theory further clarify that comprehension is grounded in mental operations that enable readers to generate propositions, form coherent representations, and integrate new textual information with existing knowledge structures [2-3].

The taxonomy of cognitive strategies articulated in second language acquisition research provides a detailed account of the mental procedures that support these comprehension processes. Strategies such as inferencing, elaboration, summarization, and repetition, as described by O'Malley and Chamot [4] and expanded by Oxford [5], function as essential cognitive tools that facilitate deeper textual processing and enhance meaning construction. These strategies not only support comprehension at the lexical and syntactic

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levels but also enable readers to navigate discourse structures, evaluate textual information, and monitor their own understanding. Pedagogical analyses in the literature reinforce the significance of these cognitive mechanisms for instructional practice. Pressley's research on literacy instruction demonstrates that cognitive strategy training substantially strengthens learners' ability to engage with texts in a purposeful and informed manner [6]. Anderson's work underscores that strategic flexibility and awareness are key attributes of proficient readers, while the distinction between skills and strategies articulated by Afflerbach, Pearson, and Paris highlights the complementary roles played by automatized processes and conscious strategic operations [7-8]. Empirical correlations between strategy use and comprehension performance in EFL contexts, as shown by Zare and Othman [9], further validate the theoretical models discussed. Nation's instructional principles provide additional confirmation that balanced, cognitively oriented reading pedagogy fosters more effective comprehension and contributes to sustained development of reading competence [10].

Overall, the findings of this theoretical review converge on a coherent conclusion: cognitive strategies are not peripheral components of reading instruction but central determinants of reading competence. They enable learners to process texts efficiently, integrate information meaningfully, and regulate comprehension in ways that support both immediate understanding and long-term literacy development. The theoretical perspectives reviewed here collectively affirm the necessity of embedding cognitive strategy instruction within language pedagogy to cultivate independent, strategic, and proficient readers. Future research may extend this understanding by examining how cognitive strategy development interacts with digital reading environments, multimodal texts, and evolving models of academic literacy in second language contexts.

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