Beyond Reading Strategies: Reconceptualising English Academic Reading in AI-Augmented Language Learning Environments

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ABSTRACT

Academic reading is traditionally conceptualised as a process of constructing meaning through the application of reading strategies, metacognitive regulation, and self-regulated learning. While these perspectives have substantially advanced understanding of how learners comprehend academic texts, they provide only a partial explanation of how reading unfolds in current the AI-supported learning environments. As they increasingly engage with artificial intelligence (AI), learners are required not only to understand academic texts but also to make continuous strategic decisions regarding whether AI assistance is necessary, how AI-generated information should be evaluated, when alternative sources should be referred, and when sufficient comprehension has been achieved. These decisions shape the reading processes; however, they remain largely under-theorised within English education. This paper argues that while academic reading strategies remain fundamental to English academic reading, greater theoretical attention to learners' strategic decision-making could provide a more comprehensive understanding of the reading process in AI-augmented learning environments specifically for flipped learning classrooms. Although current perspectives have progressive understanding of how learners apply reading strategies, comparatively, less attention has been given to clarify how learners make strategic decisions in selecting, regulating, adapting, and evaluating those strategies during academic reading. Informed by empirical insights from a completed qualitative study involving Malaysian TESL pre-university students and integrating Simon's Bounded Rationality (1957), Janis and Mann's Conflict Theory of Decision-Making (1977), Flavell's Model of Metacognition (1979), and principles of flipped learning, this conceptual paper develops an integrated perspective that reconceptualises English academic reading as a dynamic process of strategic decision-making. Within this perspective, AI is positioned not as the central agent of learning but as one of several cognitive resources that learners deliberately employ to achieve academic reading goals. By shifting the analytical focus from strategy use to strategic decision-making, this paper extends existing conceptualisations of English academic reading and offers a coherent theoretical perspective for understanding learner behaviour in AI-supported environments. The paper concludes by discussing the implications of this perspective for future theory development, empirical research, instructional design, and the responsible integration of AI into English language education.

Keywords: AI-augmented reading, flipped classroom approach, ESL learners

INTRODUCTION

The quick integration of generative artificial intelligence (GenAI) into the teaching and learning of higher education has transformed how students engage with academic reading materials. University students are no longer passive readers. They increasingly interact with artificial intelligence (AI) tools to summarise complex texts, clarify unfamiliar concepts, evaluate information, to scaffold comprehension. Consequently, for English as a Second Language (ESL) learners, English academic reading is no longer confined to a linear

interaction between readers and the text. Instead, reading has evolved into a dynamic process involving continuous decisions about when, why, and how AI should be incorporated into meaning construction (Joo & Belcher, 2025). This transformation has prompted renewed scholarly interest in understanding how ESL learners regulate their reading processes in increasingly technology-mediated environments.

Existing scholarship has predominantly examined AI from pedagogical and technological views. Research has revealed that AI tools can facilitate reading comprehension, reduce cognitive load, personalise reading experiences, and enhance learners' engagement (Lin et al., 2025; Alyami, 2026). Simultaneously, scholars have expressed concerns regarding learner overdependence, diminished critical thinking, and declining independent reading practices. Thus, contemporary discussions have largely centred on whether AI benefits or hinders learning. While these perspectives have generated valuable pedagogical insights, they have paid comparatively less attention to the cognitive processes that govern ESL learners' decision-making while interacting with AI during academic reading.

Within English education, academic reading has traditionally been conceptualised through established perspectives such as reading strategies, metacognitive regulation, and self-regulated learning. These perspectives have substantially advanced understanding of how learners plan, monitor, and evaluate reading comprehension. Yet, these perspectives primarily conceptualise academic reading as the application of cognitive and metacognitive strategies. Such perspectives become increasingly limited in AI-supported learning environments where learners must make numerous strategic decisions beyond comprehension itself, which includes deciding whether to consult AI tools, determining the credibility of AI-generated responses, verifying information across multiple sources, and evaluating whether sufficient understanding has been achieved. These decisions are not peripheral activities; rather, they are integral to contemporary academic reading.

The growing complexity of AI augmented reading therefore, suggests that English academic reading may be more appropriately understood as a strategic decision-making process rather than solely as the application of reading strategies. Although decision-making has been extensively examined in domains such as psychology, management, and healthcare; it has received comparatively limited theoretical attention within English academic reading. Current research on English academic reading acknowledges that learners continuously make choices as they plan, monitor, evaluate, and regulate their comprehension (Li & Munby, 1996; Mežek, 2022). However, these choices have predominantly been conceptualised through the lens of metacognitive regulation and reading-strategy selection (Mokhtari & Reichard, 2004), leaving comparatively less attention to how individual choices operate as interconnected cognitive judgements across the reading process Consequently, there remains very few integrated conceptual explanation describing how learners navigate academic reading while simultaneously managing cognitive complexity, technological affordances, and metacognitive regulation.

This conceptual paper addresses this gap by integrating Simon's Bounded Rationality (1957), Janis and Mann's Conflict Theory of Decision-Making (1977), Flavell's Model of Metacognition (1979) to propose a conceptual explanation of strategic decision-making in AI-augmented academic reading. Rather than positioning artificial intelligence as the primary focus, the paper conceptualises artificial intelligence as one of several cognitive resources that learners strategically employ while constructing meaning from academic texts. By reconceptualising English academic reading through a strategic decision-making perspective, this paper aims to provide a theoretically grounded explanation of learner behaviour in AI-supported reading environments and to establish directions for future empirical investigation and pedagogical practice.

LITERATURE REVIEW

English Academic Reading and Strategic Reading Practices

English academic reading is a complex and purposeful process that extends beyond decoding textual information. Readers actively construct meaning by integrating textual cues with prior knowledge, reading purposes, and contextual demands. Skilled reading is therefore inherently strategic, requiring readers to

respond to emerging comprehension needs and adjust their actions accordingly (Paris et al., 1983; Pressley & Afflerbach, 1995). For second language (L2) readers, these demands can be particularly significant because engagement with academic texts requires the simultaneous negotiation of linguistic complexity, disciplinary knowledge, and academic reading purposes. Earlier research by Li and Munby (1996), for instance, demonstrated that L2 academic readers employ multiple metacognitive strategies to negotiate these demands, establishing academic reading as a deliberate and strategically regulated activity.

The strategic perspective continues to underpin contemporary research on L2 academic reading. Reading strategies generally refer to purposeful actions employed to facilitate comprehension, address reading difficulties, and achieve reading goals. Accordingly, research has examined behaviours such as planning, monitoring comprehension, rereading, adjusting reading approaches, and evaluating understanding (Mokhtari & Reichard, 2004). More recent scholarship has extended this perspective towards self-regulation, emphasising learners' capacity to monitor and adapt their reading behaviours in response to personal, textual, and contextual conditions. Mežek et al. (2022), for example, demonstrate that knowledge or instruction of reading strategies does not necessarily translate into effective self-regulated behaviour during authentic L2 academic reading. Their findings highlight the importance of reflection, monitoring, and adjustment as learners respond to changing reading demands.

These perspectives have significantly advanced understanding of academic reading by establishing that effective readers do not passively process texts but actively select, monitor, evaluate, and adapt their approaches. Nevertheless, conceptualising academic reading primarily through strategy use and metacognitive regulation leaves an additional question concerning what governs the reader's choice among available courses of action. Identifying that a reader rereads a passage, infers meaning from context, consults another source, or takes notes explains what the reader does, but does not fully explain the judgement through which one action is selected over another. Academic reading may therefore involve not only the deployment and regulation of strategies but also interconnected cognitive judgements concerning what action to take, when it is required, why a particular course of action is appropriate, and whether it should be maintained or changed as reading progresses. This distinction becomes increasingly consequential as contemporary readers gain access to AI-mediated resources that substantially expand the range of possible actions during reading.

AI-Augmented English Academic Reading

The emergence of generative artificial intelligence (GenAI) has further transformed the conditions under which English academic reading occurs. Unlike conventional reading resources that primarily provide access to predetermined information, GenAI allows readers to interact dynamically with academic content through conversational and adaptive assistance. Readers can request explanations of unfamiliar concepts, simplify complex language, generate summaries, obtain contextual information, explore alternative explanations, and engage in iterative dialogue while processing texts. Abdullah et al. (2025), for example, found that postgraduate readers used ChatGPT for academic reading activities ranging from vocabulary simplification and concept clarification to summarisation and idea generation. Their findings also indicate that AI-supported academic reading can become nonlinear and responsive to learners' emerging needs.

Such affordances potentially alter not only the resources available for reading but also the interaction through which academic meaning is constructed. Recent research has begun to conceptualise this phenomenon as human–AI collaborative reading. Joo and Belcher (2025) in their research revealed that ChatGPT functioned as a translator, knowledge facilitator, and strategic partner during L2 academic reading, supporting vocabulary knowledge, background knowledge, inference-making, and reading strategies. Their study further showed that interaction with GenAI contributed to changes in how the reader approached academic texts, while also generating challenges concerning reliability and information overload. These findings suggest that academic reading in AI-augmented environments increasingly involves interaction not simply between the reader and text, but among the reader, text, and AI-mediated information.

However, access to AI assistance does not necessarily produce effective academic reading. AI-generated information may be inaccurate, biased, overly detailed, or insufficiently aligned with readers' needs, requiring learners to regulate rather than simply accept AI assistance (Abdullah et al., 2025; Joo & Belcher, 2025). Recent evidence consequently highlights the importance of metacognition within AI-supported reading. Dai (2026), found that postgraduate students engaged in planning, monitoring, evaluation, information management, and debugging while using GenAI for English academic reading, indicating that effective AI use requires active regulation to prevent uncritical reliance. AI therefore functions not simply as a source of assistance but as an additional cognitive resource whose use must itself be monitored and regulated.

Significantly, this development expands the range of possible actions available during academic reading. When comprehension difficulties arise, readers may continue processing independently, reread the text, infer meaning, consult another source, seek AI assistance, refine an AI prompt, evaluate the generated response, verify it against other sources, or return to the original text. Thus, AI does not merely add another tool to the reader's repertoire. It expands the decision space within which academic reading occurs. While emerging scholarship provides important evidence concerning what AI can afford readers and how learners interact with it, comparatively less theoretical attention has been directed towards the interconnected judgements governing whether AI should be used, for what purpose, how its output should be evaluated, when alternative sources should be consulted, and when sufficient comprehension has been achieved. Addressing these questions requires connecting established perspectives on reading regulation with theories capable of explaining strategic choice under changing cognitive and contextual conditions.

Theoretical Perspectives on Strategic Decision-Making in Academic Reading

Several theoretical perspectives provide complementary explanations for the regulatory and decision processes underlying academic reading. Flavell's (1979) Model of Metacognition provides an important foundation for understanding readers' awareness, monitoring, and regulation of cognition. Within academic reading, a metacognitive perspective explains how readers recognise comprehension difficulties, monitor their understanding, select or modify strategies, and evaluate whether their actions have produced sufficient understanding. This regulatory perspective remains highly relevant in AI-augmented reading, where learners must monitor not only their comprehension of the original text but also the usefulness and reliability of AI-mediated information. Indeed, emerging research on GenAI-supported academic reading demonstrates the continued importance of planning, monitoring, evaluation, and strategy adjustment (Dai, 2026).

Metacognitive regulation, however, does not by itself fully foreground how readers choose among competing courses of action when operating under limitations. Simon's theory of bounded rationality (1957) provides a complementary perspective by recognising that decisions are made within limitations of information, cognitive capacity, and available time. Rather than exhaustively evaluating every possible alternative, individuals may seek solutions that satisfactorily meet their goals within prevailing constraints. Applied to academic reading, this perspective suggests that readers' strategic choices are influenced not only by comprehension goals but also by textual complexity, prior knowledge, available time, cognitive effort, and accessible resources. In AI-augmented environments, readers face an enlarged set of alternatives, including whether to continue processing independently, employ another reading strategy, consult external information, or seek AI assistance. Bounded rationality therefore provides a basis for explaining why readers may select courses of action under constrained reading conditions, rather than if strategy selection always reflects an optimal response.

While bounded rationality explains the constraints surrounding choices, Janis and Mann's (1977) Conflict Theory of Decision-Making provides insight into how individuals approach choices involving competing alternatives, uncertainty, perceived risk, and pressure. The theory distinguishes decision patterns including vigilance, hypervigilance, defensive avoidance, buck-passing, and procrastination (Janis & Mann, 1977). Of relevance to academic reading is the distinction between systematic consideration of alternatives and less deliberative responses when readers encounter difficulty or uncertainty. Applied to AI-augmented reading, this perspective provides a basis for examining why readers confronted with similar comprehension

problems may respond differently: one reader may compare the original text with AI-generated explanations and other sources before accepting an interpretation, while another may rapidly accept the first available AI response. The theoretical focus consequently moves beyond identifying the strategy or resource employed towards considering the pattern and quality of judgement through which that action is selected.

These cognitive and decision processes also occur within certain learning conditions. Flipped learning is relevant because it shifts substantial initial engagement with instructional content to the individual learning space, while face-to-face or synchronous time is typically used for more active learning activities (Abeysekera & Dawson, 2015). During independent academic reading, learners may therefore need to recognise comprehension difficulties, determine whether assistance is required, select appropriate resources, and judge whether sufficient understanding has been achieved before direct classroom interaction. In this paper, flipped learning is consequently treated not as another decision-making theory but as a learning condition that foregrounds learner autonomy and creates circumstances in which strategic reading decisions become particularly consequential.

Simultaneously, these perspectives illuminate complementary dimensions of contemporary academic reading. Flavell (1979) explains the monitoring and regulation of cognition; Simon (1957) explains decision-making under cognitive and environmental constraints; Janis and Mann (1977) illuminate patterns through which individuals approach choices under uncertainty and pressure; and flipped learning provides a context in which learners assume greater responsibility for these decisions. Their integration provides a theoretical basis for examining academic reading not only through the strategies learners employ, but through the interconnected judgements governing their selection, regulation, adaptation, and evaluation. This integrated perspective therefore provides the foundation for reconceptualising English academic reading in AI-augmented environments as a dynamic process of strategic decision-making.

DISCUSSION

The proposed reconceptualisation of English academic reading as a strategic decision-making process is particularly relevant to Malaysian TESL pre-university students, who occupy an important transitional position between school-based learning and higher education. At this stage, students are increasingly expected to move from highly structured learning towards greater responsibility for independent academic preparation, while simultaneously developing the literacy practices required for university study. Academic reading consequently becomes more than an English language learning activity; it represents an important mechanism through which learners begin to engage with increasingly complex concepts, evaluate information, and prepare themselves for disciplinary learning.

The context of Teaching English as a Second Language (TESL) makes this transition particularly significant. As learners preparing for further study in English language and education-related disciplines, TESL pre-university students are expected to engage with English not merely as a language to be learned but increasingly as a medium through which academic knowledge is accessed, interpreted, and evaluated. Their relative linguistic proficiency, however, does not necessarily remove the challenges associated with academic reading. Complex argumentation, unfamiliar disciplinary concepts, specialised vocabulary, extensive reading requirements, and limited prior knowledge can continue to create comprehension difficulties. Consequently, the strategic challenge faced by these learners concerns not simply whether they possess adequate English proficiency, but how they regulate their available cognitive and informational resources when comprehension problems arise.

The increasing accessibility of GenAI adds another dimension to this transitional process. TESL pre-university students now enter higher education with access to tools capable of explaining difficult concepts, simplifying language, summarising academic texts, generating contextual information, and responding immediately to comprehension questions. Such accessibility may provide valuable support for learners preparing to manage university-level academic reading independently. At the same time, it creates a new form of responsibility: learners must determine when AI assistance genuinely supports their understanding

and when it risks replacing the cognitive engagement necessary for developing academic reading competence.

This makes TESL pre-university students a particularly relevant population through which to examine the shift from strategy use to strategic decision-making. When encountering difficulty, these learners may have sufficient linguistic and strategic resources to attempt comprehension independently while simultaneously having immediate access to AI-mediated alternatives. Their reading behaviour therefore cannot be explained solely in terms of whether they know or use particular reading strategies. Of equal importance is how they judge the nature of a reading problem, decide whether independent processing is sufficient, determine when external assistance is warranted, select among conventional and AI-mediated resources, and evaluate whether the resulting understanding is adequate for subsequent academic tasks.

Within a flipped learning environment, these decisions become even more consequential. Pre-class academic reading requires students to engage with texts before direct classroom instruction, creating situations in which comprehension must initially be managed with limited immediate lecturer intervention. GenAI potentially fills part of this support space, but its availability does not eliminate the need for learner regulation. Instead, it expands the range of decisions learners must make independently. The capacity to make informed decisions concerning reading strategies, information sources, and AI assistance may therefore represent an increasingly important dimension of academic readiness for higher education.

The significance of this learner group consequently extends beyond the immediate empirical setting from which the proposed perspective was developed. TESL pre-university students illustrate a broader educational challenge facing contemporary higher education: learners are expected to become increasingly autonomous academic readers at precisely the point when AI makes external cognitive assistance increasingly immediate and accessible. Understanding how learners exercise judgement within this expanded decision environment is therefore important not only for supporting their transition into university study, but also for informing how academic reading competence itself should be conceptualised in AI-augmented learning environments.

For future research, a qualitative exploratory case study design is proposed to investigate the strategic decision-making processes of ESL learners during AI-augmented English academic reading. Such study could involve TESL pre-university students undertaking independent reading within flipped classroom environments. Data could be collected through semi-structured interviews and direct observations of students' independent reading activities and interactions with AI tools to explore how they identify comprehension difficulties, select and regulate reading strategies, determine when and how to seek AI assistance, and evaluate their understanding. Thematic analysis, informed by Simon's Bounded Rationality, Janis and Mann's Conflict Theory of Decision-Making, and Flavell's Model of Metacognition, could provide deeper insights into the cognitive, metacognitive, and contextual factors shaping these decisions. Such empirical investigations would help assess the explanatory value and applicability of the proposed conceptual perspective in authentic academic reading contexts.

CONCLUSION

This paper has argued that understanding English academic reading in AI-augmented learning environments requires attention not only to the strategies learners employ but also to the strategic decisions that govern their selection, regulation, adaptation, and evaluation. Informed by empirical insights from Malaysian TESL pre-university students and drawing on Flavell's Model of Metacognition (1979), Simon's Bounded Rationality (1957), Janis and Mann's Conflict Theory of Decision-Making (1977), and principles of flipped learning, the paper reconceptualises academic reading as a dynamic and recursive process in which learners continuously make judgements about their comprehension needs, available courses of action, and the adequacy of their understanding. Within this perspective, AI is positioned not as a substitute for the reader's cognitive engagement but as one of several resources available within an expanded decision space, the value of which depends on how deliberately and critically it is employed. This perspective is particularly relevant to TESL pre-university students as emerging academic readers who are transitioning towards the greater

autonomy and independent academic literacy demands of higher education while simultaneously navigating increasingly accessible AI support. Moving beyond a primary focus on reading strategies therefore does not diminish their importance; rather, it situates them within the broader decision processes that give strategic actions their purpose. As AI becomes increasingly embedded in English language learning, developing learners' capacity to determine when, why, and how to act; when AI assistance should or should not form part of that action, may become as important as developing the strategies themselves. Future research should empirically examine this strategic decision-making perspective across different learner populations, proficiency levels, disciplines, and learning environments to further establish its explanatory value for AI-augmented academic reading.

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