

Navigating Academic Texts: Challenges and Strategies of International Students in Reading Comprehension

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ABSTRACT

Reading comprehension is a critical skill essential for academic success. However, many international students, particularly those from non-English-speaking backgrounds, often face significant challenges in understanding academic texts. This study explored the reading comprehension challenges encountered by four Asian international students from Bangladesh, Indonesia, Taiwan, and Vietnam at an American university in New York during the Fall Semester of 2023. It also explored the Problem-Solving Strategies they used to overcome these challenges. Using a qualitative phenomenological approach, data were collected through semi-structured interviews and open-ended questionnaires. The findings revealed that both linguistic factors, such as limited academic vocabulary and grammar, also non-linguistic factors, such as background knowledge, significantly affect students' reading comprehension. Despite these challenges, students frequently utilized Problem-Solving Strategies, including rereading, adjusting reading speed, and inferring meanings from context, to enhance their understanding. The study underscored the crucial role of these strategies and suggested that targeted instruction in Problem-Solving Strategies could further support international students' academic success.

Keywords: *academic texts, reading comprehension challenges, problem-solving strategies, international students.*

INTRODUCTION

The number of international students studying in higher education in the United States continues to increase, offering a diverse range of cultural and academic experiences (UNESCO Institute for Statistics, 2024). Although these students seek to improve their education, many face major challenges in adjusting to new learning environments (Park et al., 2016). One of the biggest difficulties is academic reading comprehension, which is especially hard for students who speak English as a second or foreign

language (Hezam et al., 2022; Ramadhianti & Somba, 2023).

Asian international students, in particular, often find it hard to understand academic texts due to unfamiliar words, complicated grammar, and a lack of background knowledge (Al-Jarrah et al., 2018; Hassan et al., 2021). These language and non-language challenges, along with emotional difficulties like anxiety and frustration, can prevent them from engaging effectively with academic materials (Qrquez et al., 2017; Rahmani et al., 2023). Even though reading is important for academic

success (Ma, 2022; Jala, 2020), many students do not have effective methods to deal with these difficulties (Pahrizal et al., 2024).

Given these challenges, reading comprehension is a fundamental skill in the learning process (Jala, 2020; Ramadhianti & Somba, 2023). Proficiency in reading is essential for acquiring knowledge, particularly in high school and university settings, as it allows students to engage critically with academic materials (Hezam et al., 2022). However, without strong reading skills, students may struggle to interpret complex texts, making their learning experience less effective (Rahmani et al., 2023).

Reading comprehension is crucial for international students learning a second language. Limited English proficiency hinders their ability to analyze texts due to unfamiliar vocabulary, complex sentence structures, and lack of background knowledge (Ma, 2022; Al-Jarrah et al., 2018). These challenges slow reading speed and make extracting meaning difficult, especially for English as a Foreign Language (EFL) students who often rely on translation tools, resulting in fragmented comprehension and higher cognitive load (Hassan et al., 2021). This negatively impacts academic progress, particularly for students from non-English-speaking backgrounds (Ramadhianti et al., 2023).

In addition to linguistic factors, emotional factors such as anxiety and frustration further impede reading comprehension. Anxiety can interfere with students' ability to process texts, making it harder to retain key information and ultimately affecting academic performance (Qrquez et al., 2017). Moreover, a lack of background knowledge often prevents students from fully grasping new content, as they struggle to relate it to their prior knowledge (Rahmani et al., 2023). These challenges highlight the need for effective reading strategies to support students' academic performance.

To address these challenges, researchers have explored metacognitive strategies, which help students regulate their reading comprehension processes (Flavell, 1976). These strategies involve self-monitoring, adjusting reading techniques, and

actively engaging with texts (Baker & Brown, 1984; Schraw & Moshman, 1995). One of the most effective approaches is Problem-Solving Strategies (Mokhtari & Reichard, 2002), which include rereading difficult sections, adjusting reading speed, and inferring meanings from context. Studies indicate that students who actively use these strategies tend to perform better in reading comprehension tasks (Aziz et al., 2019).

While many studies have investigated reading comprehension challenges among EFL students (e.g., Septiani et al., 2023; Pahrizal et al., 2024), limited research has focused specifically on the lived experiences of Asian international students at an American university. Most existing studies rely on quantitative methods and do not explore how students personally navigate these challenges. Therefore, this study aimed to explore the reading comprehension challenges faced by these students during the Fall Semester of 2023 and investigate how Problem-Solving Strategies help them overcome these challenges.

To achieve this, a phenomenological approach is employed. Phenomenology is particularly suitable for this study because it facilitates an in-depth exploration of students' subjective experiences, focusing on how they perceive and interpret their challenges and strategies in reading comprehension (van Manen, 1990). Rather than simply measuring reading difficulties, this approach reveals the underlying processes that influence students' academic journeys.

LITERATURE REVIEW

This literature review aims to examine existing research on challenges in reading comprehension, particularly among international students. It features a conversation about significant theories and earlier studies on both linguistic and non-linguistic elements, alongside the application of metacognitive strategies, with a focus on Problem-Solving Strategies. Additionally, this section emphasizes the research gap that supports the utilization of a phenomenological approach in the current study.

Reading Comprehension

Reading is an active cognitive activity that entails creating meaning and gaining knowledge from written materials. Comprehension improves when students can relate new information to what they already know (Sabouri, 2016). Good reading comprehension is important for academic success because it helps students think critically about and interact with academic materials (Gilakjani et al., 2016).

International students face specific challenges when reading academic texts. These challenges include language barriers, like unfamiliar vocabulary, as well as cultural differences that can impact understanding and interest (Khan et al., 2020; Ramadhianti et al., 2011). As a result, reading comprehension involves not just language skills but also cultural and cognitive ones.

Challenges in Reading Comprehension

The literature identifies two main types of difficulties in reading comprehension: linguistic factors and nonlinguistic factors.

Linguistic factors such as vocabulary, grammar, and complex sentence patterns. Hezam et al. (2022) point out that having a small vocabulary makes it hard to understand texts. Cain and Oakhill (2011) add that students who do well on vocabulary tests may still struggle with comprehension because of weak word-processing skills. Grammar is also important, especially for EFL learners who might misunderstand sentence structures due to unfamiliar grammar rules (Al-Jarrah et al., 2018; Koda, 2005).

Nonlinguistic factors, such as background knowledge, cognitive overload, and anxiety, significantly affect reading comprehension. Background knowledge is essential, as unfamiliar topics can impede students' ability to engage with the material (Hassan & Dweik, 2021). Cognitive challenges, including the capacity to distinguish main ideas from supporting details, further hinder students' ability to summarize texts and grasp key themes (Rahmani et al., 2023). Insufficient prior knowledge can also lead to comprehension difficulties, especially with English texts (Al Baihaqi, 2023). Moreover, anxiety negatively impacts concentration and cognitive processing, particularly

in high-pressure situations like examinations (Rahmani et al., 2023; Ashraf, 2023).

Problem-Solving Strategies in Reading Comprehension

In response to these challenges, many studies emphasize the role of Problem-Solving Strategies, a subset of metacognitive strategies that help students monitor and adapt their reading processes. These strategies include rereading challenging passages, adjusting the reading speed, inferring word meanings from the surrounding context, and visualizing the material (Mokhtari & Reichard, 2002). Research conducted by Aziz et al. (2019) and Pahrizal et al. (2024) indicates that students who possess greater metacognitive awareness and actively implement these strategies demonstrate enhanced comprehension and better academic outcomes.

Many studies have investigated the reading comprehension challenges faced by EFL (English as a Foreign Language) students; however, most of these studies have relied on quantitative methods and have not delved deeply into students' lived experiences. Specifically, there is a lack of qualitative research that explores how Asian international students navigate academic reading difficulties in U.S. higher education. This gap underscores the need for a more in-depth, experiential understanding of the issue, which this study aims to address through a phenomenological approach.

THEORETICAL FRAMEWORK

This research is based on three interconnected theories: Metacognitive Theory, Schema Theory, and Cognitive Load Theory.

Metacognitive Theory, developed by Flavell (1976), emphasizes individuals' ability to monitor and reflect on their learning. In reading comprehension, this allows students to recognize their understanding and confusion, enabling them to use strategies like rereading or adjusting reading speed to enhance comprehension (Artelt et al., 2011; Schraw & Moshman, 1995). This theory informed the analysis of participants' evaluation of comprehension and their choice of Problem-Solving Strategies with challenging texts.

Schema Theory, as introduced by Rumelhart (1980), suggests that understanding is reliant on the activation of existing knowledge or "schemas." Readers interpret new information by connecting it to their prior knowledge. For international students, insufficient background knowledge regarding specific academic subjects or cultural contexts can lead to misunderstandings. Schema Theory was applied to investigate how the educational and cultural backgrounds of participants affected their capacity to process and understand unfamiliar academic texts.

Cognitive Load Theory, introduced by Sweller in 1988, posits that individuals have a finite capacity for working memory. When students encounter texts with difficult vocabulary, intricate grammar, or unfamiliar topics, their cognitive resources can become overwhelmed. This theory was significant in analyzing how linguistic challenges and external distractions (such as noise and phone notifications) affected the students' capacity to concentrate and remember information while reading.

Together, these three theories provide a thorough perspective on the challenges of reading comprehension: Schema Theory highlights the importance of prior knowledge, Cognitive Load Theory elucidates the mental demands imposed by complex information, and Metacognitive Theory examines how learners actively navigate and respond to these challenges through strategic thinking.

METHODS

This study utilized a qualitative phenomenological approach to explore the reading comprehension challenges encountered by Asian international students, as well as the Problem-Solving Strategies they employed to overcome these challenges. Phenomenology was selected for its focus on individuals' subjective experiences and perceptions, allowing researchers to uncover the meaning behind participants' thoughts, feelings, and actions (van Manen, 1990). Instead of simply identifying the existing challenges, this approach explored how students personally understood and navigated these obstacles, providing rich and in-depth insights that quantitative methods might overlook.

Instrument

This research utilized semi-structured interviews and open-ended questionnaires to investigate the reading comprehension challenges and Problem-Solving Strategies of Asian international students.

The questionnaire, adapted from Mokhtari and Sheorey's (2002) Survey of Reading Strategies (SORS), used a five-point Likert scale to evaluate students' application of reading strategies, along with additional open-ended questions aimed at uncovering specific obstacles and solutions. Likert-scale items, adapted from the Survey of Reading Strategies (SORS) developed by Mokhtari and Sheorey (2002). These items measured how frequently students used various Problem-Solving Strategies while reading. Each item was rated on a five-point scale (1 = never to 5 = always). Some of the examples of a SORS-based statement used in the questionnaire are:

- 1. I read slowly and carefully to make sure I understand what I am reading. 1 2 3 4 5
- 2. I try to get back on track when I lose concentration. 1 2 3 4 5
- 3. I adjust my reading speed according to what I am reading. 1 2 3 4 5

Open-ended questions, designed to explore participants' personal experiences with academic reading. These questions allowed students to elaborate on their challenges. Sample questions included:

- 1. What types of reading materials do you usually read for your academic studies? (e.g., textbooks, research articles, online journals)
- 2. What are the main challenges you face in reading comprehension? (vocabulary challenges, grammar, cognitive processing, background of knowledge, anxiety)
- 3. Which of the following affects your comprehension the most? linguistic (grammar, vocabulary) or non-linguistic (cognitive processing, background of knowledge, anxiety)

In order to understand the lived experiences of international students with academic reading on a deeper level, the researcher carried out semi-structured interviews. These interviews were structured to provide flexibility while ensuring consistency among participants. The following guiding questions were utilized:

1. Can you explain whether you read slowly and carefully to ensure you understand what you are reading?
2. Can you describe what you do when you lose concentration while reading and how you regain focus?
3. Can you provide some examples of vocabulary or grammar that you found difficult?

Procedures

This research used a phenomenological approach to explore the experiences of Asian international students who face challenges with reading comprehension and apply Problem-Solving Strategies to overcome these challenges. The phenomenological method was chosen because it effectively explores how individuals perceive and understand their own experiences, providing a deeper insight that goes beyond what quantitative data can reveal.

Data were collected through two main instruments: open-ended questionnaires and semi-structured interviews. The open-ended questionnaire was adapted from the Survey of Reading Strategies (SORS) created by Mokhtari and Sheorey (2002). The questionnaire employed a five-point Likert scale to assess how frequently strategies were used, along with open-ended questions such as: “What are the main challenges you face in reading comprehension?” and “Which of the following affects your comprehension the most?”

The responses from participants informed the creation of the interview questions. The semi-structured interviews, held through Zoom Meeting, took between 30 to 40 minutes and provided the flexibility to delve into the participants’ experiences with academic reading. Example questions

included: “Can you identify the main challenges you experience in reading comprehension, such as vocabulary, grammar, cognitive processing, background knowledge, or anxiety?” and “Can you specify how often you stop and reflect on what you are reading to improve comprehension?”

Participants were selected through purposive sampling based on specific criteria: they were Asian international students enrolled at an American university in New York during the Fall 2023 semester, members of the International Students Organization, and non-native English speakers who had encountered reading comprehension difficulties in an academic setting. The sample comprised both undergraduate and graduate students from diverse backgrounds, reflecting a range of reading experiences. As international students, they faced unique challenges, including variations in educational systems and the intricacies of academic language, which were further shaped by cultural and linguistic factors.

Throughout the research process, ethical principles were underscored. Informed consent was secured prior to participation, and participants were oriented on the objectives and procedures of the study, as well as their entitlement to withdraw at any moment. To uphold confidentiality, pseudonyms were employed, and the university’s name was withheld due to the absence of formal authorization.

To enhance data credibility, two validation strategies were employed. First, member checking (Creswell & Miller, 2000) allowed participants to review their interview transcripts and initial findings. This ensured that interpretations remained faithful to their experiences, free from researcher bias, and provided participants an opportunity to correct misunderstandings or add insights. Second, peer debriefing was conducted by discussing findings with research advisors, allowing for an external perspective that helped minimize bias and enhance the study’s trustworthiness.

Moreover, the face validity of the questionnaire was affirmed through assessment by knowledgeable language educators, while its reliability was bolstered by the inclusion of items from the validated SORS instrument.

Data Analysis

Data analysis was conducted using thematic analysis (Braun & Clarke, 2006), following six distinct stages. First, researchers familiarized themselves with the data by extensively reading the transcripts to identify initial patterns. Key phrases and sentences were then coded manually and with the aid of qualitative analysis software. These codes were organized into broader themes, which were subsequently reviewed and refined to ensure coherence. Lastly, the results were synthesized to provide a meaningful interpretation of the participants' experiences, incorporating direct quotes to enhance the credibility of the findings.

To strengthen the validity of the findings, triangulation was employed by juxtaposing data from the questionnaires and interviews with the theoretical framework (Metacognitive Theory, Schema Theory, and Cognitive Load Theory). The researcher also engaged in reflexive journaling throughout the analysis to recognize and mitigate potential biases. These strategies were adopted to enhance the trustworthiness and accuracy of the study's interpretations.

RESULTS AND DISCUSSION

Result

According to the questionnaire results, four international students participated, specifically from Bangladesh, Indonesia, Taiwan, and Vietnam. They are at an American university in New York during the Fall Semester of 2023.

Table 1. Asian international students

No.	Name	Country
1.	IS 1	Bangladesh
2.	IS 2	Indonesia
3.	IS 3	Taiwan
4.	IS 4	Vietnam

The participants were selected based on their status as international students at an American university in New York during the Fall Semester of 2023 and their experiences with academic reading

comprehension. Their diverse linguistic and cultural backgrounds offered valuable insights into the challenges international students face when engaging with academic texts. The inclusion of students from Bangladesh, Indonesia, Taiwan, and Vietnam provided a comparative perspective on reading comprehension strategies across different educational systems. The data gathered from these participants were instrumental in identifying the specific reading comprehension challenges they encountered and exploring the Problem-Solving Strategies they employed to overcome these challenges.

Types of Academic Reading Material Used by Asian International Students

Table 2. Types of reading material Asian international students read

No.	Name	Types of reading material
1.	Bangladesh	Research articles, Textbooks, and academic journals
2.	Indonesia	Textbook
3.	Vietnam	Textbook
4.	Taiwan	Research articles, textbooks, papers, and journals

Participants reported using a variety of academic reading materials, including textbooks, research articles, academic journals, and papers. Textbooks were the most frequently utilized resources as they were provided by the university and closely aligned with the course content. For instance, IS 2 stated, *“It is easier to read from my textbook since my university provides it, rather than using journal articles.”*

Alongside textbooks, some participants referred to academic journals and research articles, particularly for assignments that required more in-depth analysis or thesis development. *“I often use textbooks and library books because I like reading thick books.”* Additionally, students expressed a preference for physical books over digital formats, as they found them easier to concentrate on and more comfortable to engage with.

Reading Comprehension Challenges Encountered by Asian International Students

Table 3. Reading comprehension challenges encountered by Asian international students

No.	Name	Country	Reading Comprehension Challenges
1.	IS 1	Bangladesh	Vocabulary and background knowledge.
2.	IS 2	Indonesia	Vocabulary, grammar, background knowledge, and external distractions.
3.	IS 3	Taiwan	Vocabulary and background knowledge.
4.	IS 4	Vietnam	Vocabulary, background knowledge, and external distractions.

Participants encountered several challenges in understanding academic readings, which can be classified into linguistic and non-linguistic factors.

Linguistic challenges mainly arose from unfamiliar vocabulary and complex grammar structures. Technical terms specific to certain disciplines were identified as barriers to understanding, particularly for students with limited prior exposure to the subject matter. Participants frequently struggled with academic terms that are rarely used in everyday conversations, making it difficult to grasp course materials. One participant, IS 1, explained, “*I feel like I don’t know enough vocabulary because sometimes English uses different terms for different situations.*”

For example, IS 4 encountered significant challenges with the technical terminology in mathematics and biology. Academic vocabulary such as *derivative*, *square root*, *quadratic equation*, *infer*, *parallel*, and *equivalent* posed comprehension to understanding. Similarly, biology-related terms like *eukaryotic cell*, *endocrine system*, and *mitosis* were difficult, requiring not just language skills but also

specific knowledge of the subject matter. For instance, grasping that a *eukaryotic cell* is defined as a cell containing a nucleus and membrane-bound organelles, or that *mitosis* refers to the process where a single cell divides into two identical cells, necessitates an understanding of specialized scientific concepts, which can be daunting without adequate background knowledge.

IS 3 added challenges due to both technical and idiomatic language. The participant encountered the word *arbitrary* for the first time and voiced confusion, mentioning that the meaning remained ambiguous even after examining the surrounding context until they turned to an online translator for help. Furthermore, IS 3 expressed unfamiliarity with the idiomatic phrase *in a nutshell*. While they grasped the literal meaning of nutshell, they did not realize that the expression metaphorically refers to in short or to summarize. This demonstrates that idiomatic phrases prevalent in academic writing can present considerable difficulties for non-native readers, particularly when such phrases diverge from their literal interpretations.

Apart from vocabulary limitations, participants also encountered challenges related to complex grammar structures. Complex sentence structures and formal grammar use created additional challenges. These elements increased the cognitive demands of reading, slowing participants’ ability to interpret texts effectively. For example, IS 2 faced challenges not just with unfamiliar vocabulary but also with grasping how various terms and phrases change their meaning based on their grammatical context. A particular illustration can be found in the sentence, “*Whereas few people set out deliberately to defraud in this way, there is a risk of unintentional plagiarism,*” which posed difficulties. In this context, the subordinating conjunction “*whereas,*” the formal term “*risk of unintentional plagiarism,*” and the phrase “*set out deliberately to defraud*” require an advanced understanding of grammar to fully comprehend the intended contrast and meaning.

The challenges faced by IS 2 illustrate how intricate grammar raises the cognitive demands necessary to interpret academic texts. Grasping such structures requires not just familiarity with individual vocabulary terms but also the capacity to process subordinate clauses and identify logical

connections between concepts. As IS 2 mentioned, *“I feel like I don’t know enough vocabulary because sometimes English uses different terms for different situations,”* highlighting that the relationship between vocabulary complexity and grammar significantly influenced their ability to understand the reading material.

Regarding non-linguistic factors, background knowledge played a crucial role in comprehension. Participants who read materials outside their primary field of study, such as a Computer Science student reading biology texts, tend to experience greater difficulty than when they engage with texts related to their areas of expertise. *“If it’s something related to biology, it’s very obvious that I wouldn’t know certain terms because I’m not a biology major,”* said IS 4.

Another challenge the participants face is maintaining concentration due to external distractions, such as phone notifications that can easily pull attention away from reading. For instance, one person remarked. IS 4 shared, *“It’s easy to lose focus if I have my phone, so I hide it under my pillow to stay focused.”*

The Use of Problem-Solving Strategies to Overcome Reading Comprehension Challenges

Based on the results of the questionnaire using the Survey of Reading Strategies (SORS) by (Kouider Mokhtari & Ravi Sheorey, 2002), all four students exhibited a high level of usage of Problem-Solving Strategies while reading. According to the SORS interpretation guidelines, a score of 3.5 or higher is classified as high in reading strategy usage. This means that all four students actively employ various Problem-Solving Strategies when reading academic texts in English. The strategies utilized by the participants include:

Table 4 below shows the problem-solving strategies used by four Asian international students, based on the Survey of Reading Strategies (SORS) developed by Mokhtari and Sheorey (2002). The responses reveal differences in the approaches each participant takes to tackle reading comprehension challenges.

Table 4. The use of problem-solving strategies by Asian international students

Problem-Solving Strategies	IS 1	IS 2	IS 3	IS 4
I read slowly and carefully to make sure I understand what I am reading.	1	3	5	4
I try to get back on track when I lose concentration.	4	4	4	3
I adjust my reading speed according to what I am reading.	3	4	4	5
When text becomes difficult, I pay closer attention to what I am reading.	4	5	5	4
I stop from time to time and think about what I am reading.	3	3	5	2
I try to picture or visualize information to help remember what I read.	5	3	5	5
When text becomes difficult, I re-read it to increase my understanding.	4	5	5	5
When I read, I guess the meaning of unknown words or phrases.	4	4	5	5

- a. I read slowly and carefully to make sure I understand what I am reading. Participants often read more slowly to fully comprehend the text, especially when they face challenging sections or unfamiliar terms. *“I read slowly because I need time to understand the text,”* according to IS 4, a student from Vietnam.
- b. I try to get back on track when I lose concentration. When the text exceeds ten pages, participants usually take a break first, as noted by IS 3, a student from Taiwan. *“I usually read a paper from start to finish, but if it’s over 10 pages and overwhelming, I pause and skip to the results and discussion.”*

- c. I adjust my reading speed according to what I am reading. When the text is challenging, participants reduce their reading speed; however, if they are already knowledgeable about the subject, their reading pace increases. *"I read lecture books slowly, but I can finish a comic page in one or two minutes,"* added IS 4.
- d. When text becomes difficult, I pay closer attention to what I am reading. When faced with a more challenging text, IS 4 focused intently on what he was reading. *"I often stop reading to review previous sections, as they may be connected. If I don't understand certain words, I pay close attention to their meaning in different contexts."*
- e. I stop from time to time and think about what I am reading. When faced with challenging texts, participants often reread sections to gain a better understanding of their meanings. *"When things get difficult, I stop and reread the passage to connect the ideas,"* said IS 1, a student from Bangladesh.
- f. I try to picture or visualize information to help remember what I read. Some participants use visualization techniques to better remember and understand the concepts they read. *"I search for related pictures on Google, and if I still don't understand, I draw them myself,"* said IS 4.
- g. When text becomes difficult, I re-read it to increase my understanding. Some participants, such as IS 1, IS 2, and IS 4, tend to reread the text when it becomes difficult. As stated by IS 1, *"I reread the text to focus, and if it's too difficult, I watch YouTube videos or use ChatGPT for a simpler explanation."* IS 2 also said, *"When a text becomes difficult, I reread it to understand the meaning. I focus on the main idea rather than translating every word."* Then, IS 4 added, *"My first step is to reread the text to check if I truly don't understand it or just lack confidence."*
- h. When I read, I guess the meaning of unknown words or phrases. Participants attempt to determine the meanings of unfamiliar words by guessing the context of the surrounding sentences. *"I sometimes guess the meaning from context, but if unsure, I look up words on Google or ChatGPT,"* revealed IS 1.

Table 5. The result of the use problem-solving strategies

No.	Name	Country	Overall
1	IS 1	Bangladesh	3.5
2	IS 2	Indonesia	3.9
3	IS 3	Taiwan	4.7
4	IS 4	Vietnam	4.1

The results from the Survey of Reading Strategies (SORS) by Mokhtari and Sheorey (2002), as presented in the table above, offer insights into the Problem-Solving Strategies utilized by four Asian international students from Bangladesh, Indonesia, Taiwan, and Vietnam in their reading comprehension. According to the established classification scale, students scoring 3.5 or above demonstrate high usage of reading strategies, while scores from 2.5 to 3.4 indicate medium usage, and scores at or below 2.4 are categorized as low.

In this study, IS 3 from Taiwan scored the highest at 4.7, placing them firmly in the high usage category, which reflects a strong application of reading strategies. Similarly, IS 4 from Vietnam scored 4.1, and IS 2 from Indonesia scored 3.9, both also indicating a consistent and effective reliance on Problem-Solving Strategies. IS 1 from Bangladesh achieved a score of 3.5, which, while still classified as high, is the lowest among the participants.

This suggests a comparatively lesser usage of reading strategies in their academic approach. Overall, all participants demonstrated a high level of engagement with Problem-Solving Strategies, albeit with some differences in frequency. These findings imply that students who actively employ these strategies often maintain better control over their reading comprehension processes, underscoring the importance of metacognitive awareness in achieving success in academic reading.

Discussion

This study explored the reading comprehension challenges faced by Asian international students and their use of Problem-Solving Strategies to overcome those challenges. The discussion is organized thematically based on key findings and is linked explicitly to the theoretical framework and previous studies.

Linguistic Factors: Vocabulary and Grammar

The results of this study reinforce previous research that highlights the linguistic difficulties faced by international students during academic reading tasks. The participants consistently reported difficulties with vocabulary, finding it challenging to understand key concepts in readings due to unfamiliar academic words and technical terms related to their fields. Many found it challenging to understand important concepts in readings due to unfamiliar academic words and specific terms related to their fields. This result aligns with Hezam et al. (2022), who found that a limited vocabulary significantly affects reading comprehension among EFL students. Similarly, Ha Le (2021) emphasized that vocabulary limitations and insufficient background knowledge were the two main challenges affecting students' abilities to understand readings.

In addition to vocabulary problems, participants also faced challenges with idiomatic and figurative language. As observed by Vongsawath, et al. (2025), when students encounter unfamiliar words, they often rely heavily on dictionaries and translation tools, which frequently leads to only a partial understanding of the text. A similar pattern emerged among the participants in the present study, who often used external resources to support their comprehension.

Grammar also became a significant challenge. Complex sentence structures and formal grammar slowed their reading pace and often caused participants to reread parts. Some participants mentioned they had trouble with long or complicated sentences, showing that syntactic complexity, especially seen in academic texts, is a real difficulty for learners who do not have a strong understanding of grammar (Vongsawath et al., 2025). These results correspond to Al-Jarrah (2018), who observed similar challenges among EFL students when facing syntactic complexity. Likewise, Tajamal (2019) reported that long and complex sentence structures greatly hinder EFL learners' reading comprehension.

Furthermore, the results are supported by Alowalid et al. (2018), who pointed out that while knowing grammar is important, vocabulary proficiency exerts a greater influence on reading

comprehension performance. Their study showed that students with a limited vocabulary struggle to understand or figure out meanings from texts effectively, leading to significant comprehension issues. While spelling was identified as another important factor in their study, the current findings suggest that spelling problems did not stand out among the participants. Instead, the combination of vocabulary challenges and syntactic complexity increased the cognitive demands during reading, which aligns with the Cognitive Load Theory (Sweller, 1988).

Moreover, the importance of metacognitive strategies is crucial when dealing with such language difficulties. According to Metacognitive Theory (Flavell, 1976), students who have a better awareness of their thinking processes are more likely to notice these challenges and use strategies like rereading and simplifying content to boost their understanding.

Overall, the results highlight that challenges related to unfamiliar vocabulary, idiomatic expressions, and complex grammar, combined with limited background knowledge, collectively create significant challenges for international students' academic reading comprehension.

Nonlinguistic Factors: Background Knowledge and Focus

Nonlinguistic factors, such as background knowledge and concentration, play critical roles in reading comprehension. Participants often found it more challenging to understand content outside their academic disciplines, which is consistent with Schema Theory (Rumelhart, 1980). This theory suggests that readers interpret new information more easily when it connects to their existing knowledge. This idea is supported by studies conducted by Hassan and Dweik (2021), Rasakumaran and Patrick (2019), and Al Baihaqi (2023), all of which emphasize the importance of background knowledge in interpreting unfamiliar texts.

External distractions present significant challenges. Phone notifications, ambient noise, and social media disrupt students' concentration. Cognitive Load Theory (Sweller, 1988) explains that such distractions increase cognitive burden, which reduces comprehension efficiency. To address this issue, some students reported using focus-enhancing

apps like Forest, demonstrating self-regulation behaviors aligned with metacognitive principles.

Use of Problem-Solving Strategies

Problem-Solving Strategies were the most frequently used metacognitive strategies. These included rereading difficult texts, slowing down reading speed when necessary, inferring meanings from context, and visualizing information. These strategies helped participants remain engaged with the texts and understand challenging materials, which aligns with findings from Rajab et al. (2017) and Rianto (2021).

Aziz et al. (2019) highlighted that students with strong metacognitive awareness are more effective in using Problem-Solving Strategies, leading to improved comprehension outcomes. This is further supported by the present study, where participant IS 3, who scored highest on the SORS scale, consistently applied these strategies. This underscores the importance of metacognitive training for EFL students.

Use of Digital Resources

Participants often utilized digital resources like dictionaries, Google Translate, and AI tools to understand unfamiliar terms. While these tools proved beneficial, Sheorey and Mokhtari (2002) warn that relying too heavily on translation aids may impede the development of independent reading skills. However, the participants in this study did not directly express this concern.

Study Environment and Self-Regulation

To enhance reading focus, students aimed to create distraction-free environments. They reported using strategies such as silencing their phones, putting away devices, and employing productivity tools to minimize interruptions. Research by Rahmani et al. (2023) supports these practices, indicating a connection between controlled environments and improved academic performance. These behaviors also illustrate self-monitoring and self-regulation, essential components of Metacognitive Theory.

Implications and Recommendations

This study highlights the importance of academic institutions offering specific support for international students. Training workshops on metacognition can help students recognize and use effective reading strategies. Colleges might also add culturally diverse and increasingly challenging texts to their courses to help students build background knowledge and reading strength.

Additionally, the careful use of AI tools and peer-led discussion groups could improve understanding and reduce feelings of loneliness. As Baehaqi (2022) suggests, reflection and cross-disciplinary approaches enhance learning. However, researchers should critically assess dominant ideas that may limit creativity and different viewpoints. Future studies should look further into how international students can be helped to develop independent and flexible reading strategies beyond traditional methods.

CONCLUSION

This study explored the reading comprehension challenges of Asian international students at an American university. Findings revealed that students often struggled with vocabulary, grammar, background knowledge, and external distractions. However, those were able to employ strategies like rereading, adjusting reading speed, and inferring meaning to overcome challenges. The results align with Metacognitive Theory, Schema Theory, and Cognitive Load Theory, which explain how students manage their reading processes and connect new information to prior knowledge.

Practically, the study highlights the need for educational institutions to offer structured training in metacognitive reading strategies, foster peer-led study groups, and provide increasingly challenging texts with diverse cultural content. Utilizing digital tools, such as online dictionaries and AI resources, can also support student autonomy in reading.

However, the research had limitations, including a small and relatively homogenous sample

size and reliance on self-reported data, which may not accurately reflect reading behaviors. Future studies should involve a more diverse group of international students and incorporate longitudinal observations to better understand the development of reading strategies across different academic settings.

REFERENCES

- Akturk, A. O., & Sahin, I. (2011). Literature review on metacognition and its measurement. *Procedia - Social and Behavioral Sciences* 15, 3731–3736. <https://doi.org/10.1016/j.sbspro.2011.04.364>
- Al-Jarrah, H., & Ismail, N.S. (2018). Reading comprehension difficulties among EFL learners in higher learning institutions. *International Journal of English Linguistics*, 8(7), 32–41. <https://doi.org/10.5539/IJEL.V8N7P32>
- Alowalid, A., Mujiyanto, J., & Bharati, D. A. L. (2018). The linguistic factors that affect poor reading comprehension among Libyan students. *English Education Journal*, 8(2), 229–240. <https://doi.org/10.15294/eej.v8i3.22466>
- Ashraf, T. A. (2023). Reading comprehension challenges confronted by Saudi EFL learners. *Language in India*, 23(2), 1–11.
- Aziz, Z., Nasir, C., & Ramazani, R. (2019). Applying metacognitive strategies in comprehending English reading texts. *Celt: A Journal of Culture, English Language Teaching & Literature*, 19(1), 138 – 159. <https://doi.org/10.24167/celt.v19i1.1863>
- Baehaqi, L. (2022). Mandating teaching approaches stifles innovation: a case against. *Journal on English as a Foreign Language*, 12(1), 198–220. <https://doi.org/10.23971/jefl.v12i1.3837>
- Baihaqi, G. A. (2023). The study of difficulties factors in reading comprehension at Junior High School Al Hidayah in Malang (Undergraduate thesis). English Education Department, Faculty of Teacher Training and Education, University of Islam Malang. <https://repository.unisma.ac.id/handle/123456789/6768>
- Baker, L., & Brown, A. L. (1984). Metacognitive skills and reading. In P. D. Pearson, R. Barr, M. L. Kamil and P. Mosenthal (Eds.), *Handbook of Reading Research* (pp. 353–394). New York: Longman.
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi.org/10.1191/1478088706qp063oa>
- Cain, K., & Oakhill, J. (2011). Matthew effects in young readers: Reading comprehension and reading experience aid vocabulary development. *Journal of Learning Disabilities*, 44(5), 431–443. <https://doi.org/10.1177/0022219411410042>
- Chennamsetti, P., & Khawaja, N. (2023). Coping strategies used by Indian international students to overcome transitional challenges in the United States. *Journal of Comparative & International Higher Education*, 15(4), 57–69. <https://doi.org/10.32674/jcihe.v15iNo.4.2478>
- Flavell, J. H. (1976). Metacognitive aspects of problem-solving. In L. B. Resnick (Ed.), *The Nature of Intelligence* (pp. 231–235). Hillsdale, NJ: Lawrence Erlbaum Associates.
- Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, 34, 906–911. <https://doi.org/10.1037/0003-066X.34.10.906>
- Gilakjani, A.P., & Sabouri, N.B. (2016). Learners' listening comprehension difficulties in English language learning: A literature review. *English Language Teaching*, 9, 123–133. <https://doi.org/10.5539/ELT.V9N6P123>
- Ha Le, V. (2021, July). Common difficulties of reading comprehension experienced by Vietnamese students. *Proceedings of the 5th International Conference on Education and Multimedia Technology* (pp. 306–310). <https://doi.org/10.1145/3481056.3481073>

- Hassan, I. J., & Dweik, B. S. (2021). Factors and challenges in English reading comprehension among young Arab EFL learners. *Academic Research International*, 12(1), 18-30.
- Hezam, T. A., Ali, J. K. M., Imtiaz, S., Saifi, M. A., & Rezaul Islam, M. (2022). Challenges and problems of reading comprehension experienced by EFL learners. *Journal of English Studies in Arabia Felix*, 1(2), 11-21. <https://doi.org/10.56540/jesaf.v1i2.28>
- International Students (2024). Migration Data Portal the Bigger Picture. Retrieved on May 27, 2024, from International Students Migrationsdatenportal.
- Jala, G. T. (2020). Pupils' reading comprehension, problem-solving skills and academic performance. *Journal of World Englishes and Educational Practices*, 2(4), 1-9. <https://doi.org/10.32996/jweep.2020.2.4.1>
- Kara, S., (2015). Reading strategies: prospective teachers and their teaching practices. *Journal of Educational and Instructional Studies in the World*, 5(3), 20-28.
- Khan, R. M. I., Shahbaz, M., Kumar, T., & Khan, I. (2020). Investigating reading challenges faced by EFL learners at elementary level. *Register Journal*, 13(2), 277-292. <https://doi.org/10.18326/rgt.v13i2.277-292>
- Koda, K. (2005). *Insights into second language reading: a cross-linguistic approach*. Cambridge University Press. <https://doi.org/10.5785/24-2-46>
- Ma, J. (2022). Challenges and strategies facing international students and faculty in U.S. higher education: A comprehensive literature review. *GATESOL Journal* 32(1), 18-38. <https://doi.org/10.52242/gatesol.122>
- Mokhtari, K., & Sheorey, R. (2002). Measuring ESL students reading strategies. *Journal of Developmental Education*, 25(3), pp. 2-10.
- Moleong, L. J. (2010). *Metodologi penelitian kualitatif*. Bandung: PT. Remaja Rosdakarya.
- Pahrizal, N., Vintoni, A., Sotlikova, R., & Ya'akub, H. Z. H. (2024). Metacognitive reading strategies and their impact on comprehension: Insights from rural EFL learners. *Indonesian Journal on Learning and Advanced Education (IJOLAE)*, 7(1), 18-36. <https://doi.org/10.23917/ijolae.v7i1.23908>
- Park, H., Lee, M.-J., Choi, G.-Y., & Zepernick, J. S. (2016). Challenges and coping strategies of East Asian graduate students in the United States. *International Social Work*, 60(3), 733-749. <https://doi.org/10.1177/0020872816655864> (Original work published 2017)
- Qrquez, M., & Ab Rashid. R. (2017). Reading comprehension difficulties among EFL learners: The case of first and second-year students at Yarmouk University in Jordan. *Arab World English Journal*, 8(3). <https://dx.doi.org/10.24093/awej/vol8no3.27>
- Rahmani, S., Shahab, S., & Mohabat, G. A. (2023). Reading comprehension problems among first and second year EFL students at Shaikh Zayed University in Afghanistan. *Integrated Journal for Research in Arts and Humanities*, 3(5), 294-299. <https://doi.org/10.55544/ijrah.3.5.31>
- Rajab, A., Rahman, H.A., Wahab, S.R., Nor, F.M., Zakaria, W.N., & Rajim, W.Z. (2017). Metacognitive reading strategies among undergraduates. *International Journal of Information and Education Technology*, 7, 548-551. <https://doi.org/10.18178/IJIET.2017.7.7.928>
- Ramadhianti, A., & Somba, S. (2023). Reading comprehension difficulties in Indonesian EFL students. *Journal of English Language Teaching and Literature (JELTL)*, 6(1), 1-11. <https://dx.doi.org/10.47080/jeltl.v6i1.2477>
- Rasakumaran, A., & Patrick, J. J. D. (2019). Schema theory and cognitive aspects of reading. *Journal of Humanities and Social Science*, 24(4), 26-30. <http://dx.doi.org/10.9790/0837-2404032630>
- Rianto, A. (2021). Examining gender differences in reading strategies, reading skills, and English proficiency of EFL University students. *Cogent Education*, 8(1), 1-21. <https://doi.org/10.1080/2331186X.2021.1993531>

- Rumelhart, D. E. (1980). Schemata: the building blocks of cognition. In R. J. Spiro, B. C. Bruce, & W. E. Brewer (Eds.), *Theoretical Issues in Reading Comprehension* (pp. 33-58). Erlbaum.
<https://doi.org/10.4324/9781315107493-4>
- Samarajeewa, C. A. (2023). Metacognition in reading comprehension. *Globus: Journal of Progressive Education*, 13(2), 38-46.
- Sanjaya, H. W. (2015). *Penelitian pendidikan: metode, pendekatan, dan jenis*. Kencana.
- Schraw, G., & Moshman, D. (1995). Metacognitive theories. *Educational Psychology Review*, 7, 351-371. <https://doi.org/10.1007/BF02212307>
- Seidman, I. (2013) *Interviewing as qualitative research: a guide for researchers in education and the social sciences*. Teachers College Press.
- Septiani, D., Lubis, A. A., & Sufiyandi, S. (2023). Metacognitive strategies employed by English students in reading comprehension. *Journal of English Education and Teaching*, 7(4), 1009-1022. <https://doi.org/10.33369/jeet.7.4.1009-1022>
- Sheorey, R., & Mokhtari, K. (2001). Differences in the metacognitive awareness of reading strategies among native and non-native readers. *System*, 29, 431-449.
[https://doi.org/10.1016/S0346-251X\(01\)00039-2](https://doi.org/10.1016/S0346-251X(01)00039-2)
- Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognitive Science*, 12(2), 257-285.
https://doi.org/10.1207/s15516709cog1202_4
- Tajamal, T. (2019). Difficulties in reading comprehension among EFL learners at intermediate level and recommended strategies. *Arab World English Journal (AWEJ)*, 8(1), 256-265.
- van Manen, M. (2021). Doing phenomenological research and writing. *Qualitative Health Research*, 31(6):1069-1082.
<https://doi.org/10.1177/10497323211003058>
- 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), 123-135.
<http://dx.doi.org/10.21462/jeltl.v10i1.1495>