UNIVERSITI TEKNOLOGI MARA

ROLES OF READING STRATEGIES, VOCABULARY SIZE, AND SELF-EFFICACY IN INFLUENCING READING COMPREHENSION PERFORMANCE AMONG IRAQI SECONDARY SCHOOL EFL LEARNERS

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CONFIRMATION BY PANEL OF EXAMINERS

I certify that a Panel of Examiners has met on 28th August 2025 to conduct the final examination of Leena Saad Faaik Alabbaichy on her Doctor of Philosophy thesis entitled "Roles of Reading Strategies, Vocabulary Size, and Self-Efficacy in Influencing Reading Comprehension Performance Among Iraqi Secondary School EFL Learners" in accordance with Universiti Teknologi MARA Act 1976 (Akta 173). The Panel of Examiners recommends that the student be awarded the relevant degree. The Panel of Examiners was as follows:

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ABSTRACT

Reading comprehension in English as a Foreign Language (EFL) is a complex, multifaceted cognitive process influenced by linguistic, strategic, and affective factors. Recent research has shown that reading strategies, reading self-efficacy, and vocabulary size play an important role in students' reading comprehension. However, limited research has explored how these factors influence reading comprehension performance among Iraqi secondary school EFL learners. There was also a paucity of work that used focus group discussions that probed information about the particular educational and contextual factors that contribute to students' challenges in reading comprehension. For this purpose, this study employed both quantitative and qualitative data collection approaches. In the quantitative study, a total of 180 Iraqi secondary school EFL students were recruited. All participants completed two surveys: the reading strategies survey and self-efficacy survey, and two tests: the vocabulary size test and reading comprehension test. In the qualitative study, a group of six participants who took part in the quantitative data were invited to attend focus group discussions, with the aim of probing further insights about the reading comprehension challenges faced by EFL students. The quantitative study was administered across two scheduled sessions that lasted about 45 minutes each, whereas the qualitative focus group discussions were conducted in Arabic and took about 40 minutes to complete. To analyse the quantitative data, the study used descriptive statistics to analyse participants' reading strategy and self-efficacy beliefs, and to determine students' vocabulary size, whereas the mediation and regression analyses were used to assess the relationship between students' reading strategies, self-efficacy, vocabulary size, and reading comprehension. The general results showed that the problem-solving reading strategy was the most frequently used reading strategy among Iraqi secondary school EFL learners. It had a positive and significant effect on reading comprehension performance. The participants' vocabulary size was around 2500 words on average, and there was a positive and significant relationship between vocabulary size and reading performance. Participants' self-efficacy also proved to be not only a positive and significant predictor of reading comprehension performance, but also a significant mediator between reading strategies and reading performance. The transcribed qualitative discussions further showed that students' reading comprehension challenges were mainly attributed to five main factors: limited vocabulary, lack of interest, inadequate language practice, insufficient support, and ineffective teaching approach. This study has discussed the collected data in the light of reading models and empirical findings of the literature and offered context-specific insights for reading instruction in Iraq, and how reading comprehension challenges among EFL learners can be overcome more generally.

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بِسْمِ ٱللَّهِ ٱلرَّحْمَـٰنِ ٱلرَّحِيمِ

إِنَّ مَعَ الْعُسْرِ يُسْرًا

"Indeed, with hardship comes ease."
Surah Ash-Sharh, 94:6

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CHAPTER 1
INTRODUCTION

1.1 Introduction

This chapter provides a general overview of the research area that the present study investigated. It presents the background information, describes the research problem vis-à-vis the existing literature and the research context, states the research objectives and questions, highlights the significance of the research, outlines its limitations, and explains the definitions of the key terms that are situated within the specific scope and context of the present study.

1.2 Background to the Study

English as a Foreign Language (EFL) education places significant emphasis on developing reading comprehension, a skill that serves as both a foundation for language development and a gateway to academic and professional opportunities. Language comprehension is a central topic of discussion in psychology, linguistics, and education, particularly in the context of EFL learners. These students often face challenges in mastering all four language skills: listening, speaking, reading and writing. Each skill entails different cognitive and practical capacities, and achieving them in a foreign language environment can often involve crossing formidable linguistic and pedagogical barriers (Ali, 2022; Ruman, 2021). Of these abilities, reading is the most valuable skill, as it facilitates not just language development but access to professional and scholarly resources (Ehri, 2020; Stanovich, 2024). Reading comprehension stands out as an area that should be investigated because reading, interpreting and analysing texts are skills that EFL students need to be successful both in the classroom and beyond (Capin et al., 2024; Clinton-Lisell et al., 2024).

There have been many discussions in psychology, education, and linguistics about reading comprehension and the possible factors related to reading performance among EFL students (Dagnaw, 2023; Paige et al., 2024; Peng et al., 2023; Yang & Gan, 2024). In essence, reading is a complex cognitive process in which a reader must identify details, make inferences, construct the meaning from context, establish

coherence among textual elements, and then make an appropriate conclusion based on available information (e.g., Duke et al., 2021; Kintsch, 2012). For instance, to read and understand a written text, a reader needs to use specific strategies such as connecting his or her background knowledge to the text, creating a summary of the details, regulating the pace of their reading, and evaluating overall meaning to decipher the text (Samiei & Ebadi, 2021; Stanovich, 2024).

Researchers also consider reading comprehension as an essential element of literacy, success in school, and professional development (Graesser et al., 2019; Suggate et al., 2018; Wexler et al., 2022). It is also largely agreed that reading ability is a prerequisite for language learning. However, the nature of the process that is involved in comprehending the meaning of a written text is relatively difficult to describe (Al-Nujaidi, 2003; Qrqez & Ab Rashid, 2017; Umek, 2020). Most academics and theorists regard reading comprehension as a reciprocal process in which the variables of the reader (e.g., knowledge of the topic, interest in the material, the purpose of reading) and the variables of the text (e.g., text structure, vocabulary) interact to build up the meaning of what the reader has read (Al-Nujaidi, 2003; Qrqez & Ab Rashid, 2017; Umek, 2020).

Reading efficiency in the Second Language (L2) is also viewed as a prerequisite for the development of language and academic skills (Al-Nujaidi, 2003; Anderson, 1999). Given that a large portion of materials in the academic and professional world is available in English, the ability to read in English is crucial (Gingerich & Adler, 2020). However, many EFL learners have reported encountering difficulties in understanding what they read (Alzahrani et al., 2021), as they often struggle with reading components like comprehension, accuracy, and speed.

Several studies attempted to explain students' challenges in reading comprehension, but their findings suggest that the ability to read and comprehend is a by-product of several factors, which include, but are not limited to, vocabulary size, reading strategies, reading anxiety, reading self-efficacy, language/literacy proficiency, and background knowledge (see for instance, Al Asmari & Javid, 2018; Alsamadani, 2009; Alzahrani et al., 2021; Martinez, 2019; Mukhlif & Amir, 2017; Rochmah & Wahyuningsih, 2022). Among the research conducted, one line of research attributed students' poor comprehension to students' inability to use adequate reading strategies (Al-Jarrah & Ismail, 2018; Al-Qahtani, 2016), while others link it to a lack of sufficient prior knowledge (Kintsch, 1994, 2005). Additionally, some evidence suggests that

reading ability is a natural gift, whereas others argue that it is acquired through education (Ellett, 2014; Tong & Yip, 2015).

Of the many factors involved in reading comprehension, it is observed that vocabulary size is an important predictor of reading ability, primarily because it directly influences how well a student reads and interprets texts. Possession of a large pool of vocabulary is facilitative, helping readers to process information, break down unfamiliar terms, draw inferences, and fully immerse themselves in the text (Dagnaw, 2023; Enayat & Derakhshan, 2021). In fact, there is evidence from several studies to show that comprehension is impeded with limited vocabulary, as students find it difficult to understand what is being read and to draw connections between ideas (Alzahrani et al., 2021; Tong et al., 2023). Additionally, vocabulary knowledge is associated with general success in the classroom, because it enhances not only reading comprehension but also aids in the development of writing and speaking skills (Anderson, 1999). Hence, possession of a large vocabulary size plays a crucial role in developing EFL and ESL learners' reading comprehension and language skills.

Considering the importance of reading skills, EFL and ESL learners need to be taught effective reading strategies to enable them to process texts and make use of the content read. Studies have repeatedly shown that students with metacognitive reading strategies, like planning, inferring, guessing information, and analysing details, can understand difficult texts more effectively (Samiei & Ebadi, 2021; Wexler et al., 2022). In the EFL classroom, strategic reading empowers students to be more autonomous and proactive in their learning, because they can employ strategies to overcome challenges during reading (Huo & Khoo, 2022; Solomons, 2023). Reading strategies enable EFL learners with language barriers to tackle unfamiliar words and process complex sentences, ultimately leading to improved comprehension and retention (Kamaliah & Utaminingsih, 2023; Manurung et al., 2023).

In the same vein, reading self-efficacy, defined as a learner's confidence that he or she can successfully read and process information, has been shown as an important aspect of reading comprehension (Jiang, 2023; Muche et al., 2024; Yang & Gan, 2024). Researchers have observed that students with high reading self-efficacy are motivated, persistent, and confident in how they manage reading assignments tend to perform better (Almohammadi, 2023; Apriliyani & Usuludin, 2023; Shehzad et al., 2021; Yang & Gan, 2024) than those with lower reading self-efficacy. By contrast, students who lack self-efficacy have been observed to be unwilling to persevere when confronted

with challenging texts, and thus score low on reading comprehension (Schunk, 2003; Shehzad et al., 2021). Self-efficacy can also affect how one reads and how much effort one puts into reading. In fact, EFL students who trust their own ability to understand texts in English are more likely to use strategies, explore resources, and persevere despite obstacles, which ultimately increases the success rate in understanding texts (Bandura, 1986).

Traditional models of reading comprehension have long emphasised the interplay between various reader-centered factors, including self-efficacy, in determining reading success (Kintsch, 2012; Samuels & Kamil, 1988; Schunk, 2003; Stanovich, 1980). These models highlight readers' text-processing abilities at the level of syntax (Kintsch, 1994), their background knowledge, experiences and memories (Schoenbach & Greenleaf, 2000), their prior academic achievement (Duncan et al., 2007), and their self-efficacy (Guthrie et al., 1999; Martinez, 2019) as predictors of effective reading comprehension. Language is perceived as a code, and the primary task of the reader is to identify and convert graphemes to phonemes. Although it is acknowledged that some processing is inevitably involved, the reader is considered a passive recipient of the text and expects to unlock the meaning within the text, informed by syntactic and background knowledge. Other models of reading comprehension draw attention to affective factors like anxiety (Carroll et al., 2005), mood (Bohn-Gettler & Rapp, 2011) and depression (Bonifacci & Snowling, 2008).

However, influential models of reading comprehension present reading as an interactive, top-down process, where successful reading involves employing not only the reader's syntactic and background knowledge but also numerous cognitive processes and the affective aspects happening simultaneously during reading (Samuels & Kamil, 1988; Schunk, 2003).

However, information remains scant in the research conducted using EFL readers in Iraq, as much of the research has been done in L1 and ESL contexts in different parts of the world that highlighted the role of cognitive resources, including readers' engagement and management of emotions. Investigating these aspects is particularly important in Iraq, where English is learned primarily in formal classroom environments with restricted exposure, making learners' strategic behavior, vocabulary knowledge, and self-beliefs especially critical for comprehension development.

Research that sheds light on the cognitive and the emotive factors will clarify both the process and the complexity of reading, enabling researchers and educators to

identify where and why comprehension difficulties arise and to design targeted instructional interventions that foster strategic reading, emotional regulation, and vocabulary growth. Hence, the present study aims to investigate the interactive, socio cognitive and affective aspects of reading (e.g., Stanovich's interactive-compensatory model; Rumelhart's interactive model), specifically the role of self-efficacy in reading comprehension, and reading strategies and vocabulary size, and how these factors contribute to reading comprehension performance among Iraqi secondary school EFL learners.

1.3 Reading Comprehension and Its Importance in EFL Iraqi Contexts

The ability to understand written language stands as a fundamental skill for successful language acquisition, particularly for students learning English as a Foreign Language (EFL). Globalization has established English as the primary international language and comprehending texts written in English is crucial for effective communication and success in academic and professional fields (Dash & Gandhi, 2022; Grigoryeva & Zakirova, 2022). In Iraqi contexts, learners acknowledge that possession of effective reading skills in English is a pathway to better educational and career opportunities but reading is a complex skill to master because of socio-linguistic, educational and cultural obstacles (Al Zubaidi, 2021). As English is a language that is learnt most commonly as part of the curriculum, EFL learners face many challenges. Linguistically, they must develop reading comprehension skills that extend beyond word and sentence decoding to include text interpretation and information synthesis. They need reading comprehension skills that will allow them to interact with difficult texts and access new ideas while building vocabulary and increasing language mastery (Chamba & Ramirez-Avila, 2021). While listening and speaking require immediate and spontaneous interaction between people, reading enables learners to interact with language material at their individual pace (Stanovich, 2024).

The educational system in Iraq emphasizes development of English proficiency as students need English language skills for academic success and professional advancement. The primary language of instruction in higher education in Iraq includes English for scientific disciplines as well as engineering, medicine and business studies (Jawad & Al-Assaf, 2014; Karam, 2024). Therefore, Iraqi EFL second school students aspiring to pursue higher education must develop efficient English reading

comprehension skills to access academic journals and research materials published in English (Dehham et al., 2022).

It is observed that Iraqi EFL students face major challenges in reading comprehension due to the substantial language gap between their first language, Arabic and foreign language, English. The two languages differ greatly in syntactic structures, phonological systems and vocabularies (Alawajee & Almutairi, 2022; Mkhelif, 2021). The Semitic Arabic language operates on a root word system, while English, with Germanic origins, uses complex tense structures and includes both articles and prepositions (Smolka & Ravid, 2019). These differences pose challenges for Iraqi learners with limited access to English outside the school environment to overcome. Therefore, opportunities for students to improve their English language skills including reading skills through situations in which they can use English and develop their language skills are limited.

The educational system in Iraq also faces multiple challenges. The most urgent problems relate to crowded classrooms, struggles in recruiting qualified teachers and equipping classrooms with modern teaching resources (Harb, 2008; Pir, 2024). Reading comprehension programmes struggle to develop because educational barriers prevent students from accessing reading resources that they need to improve their reading skills. The conventional educational system in Iraq also focuses on developing students' grammatical knowledge. vocabulary learning is embedded into the lessons but reading classes fail to build the full range of cognitive skills required for students to process English texts (Ali, 2022; Mkhelif, 2021). Successful Reading comprehension requires learners to not only understand word meanings, analyze text interactions but also to evaluate information critically (Paige et al., 2024; Yang, 2023). With limited time and resources allocated to the development of essential reading skills for effective reading comprehension, it is unsurprising that many Iraqi secondary school students' English proficiency and reading skills leave much to be desired.

Besides these educational and linguistic obstacles, the EFL learners must manage the psychological and motivational factors that affect their ability to understand the reading material (Bozgun & Can, 2023; Li et al., 2022; Miyamoto, 2024; Yang & Gan, 2024). When Iraqi EFL students struggle with English reading tasks, they are likely to become discouraged because their confidence drops and frustration sets in which affects their motivation. Students who perceive reading comprehension as too challenging or outside their skill set tend to show lower persistence in their learning

assignments which affects their educational advancement (Apriliyani & Usuludin, 2023; Bozgun & Can, 2023; Mohammed, 2022). Enhancing students' confidence in their reading abilities and developing positive attitudes towards reading can therefore greatly improve their ability to advance their reading comprehension skills.

In brief, although it is known that reading comprehension forms the fundamental basis of language learning for EFL students, Iraqi EFL students must surmount challenges stemming from linguistic differences between Arabic and English, limited language exposure hindering their ability to develop their language skills. Targeted educational interventions, alongside self-efficacy development programmes, informed by research findings, will enable Iraqi secondary school students to develop their English comprehension skills so that they, will be better prepared for university education and improve their chances for success in today's global environment.

1.4 Context of English Language Learning in Iraq

English is widely taught as a foreign language in Iraq, as it is considered an important language for business, education, and communication with the outside world. English is taught as a core subject in schools from the primary-school level to the university-school level (Altae, 2020). In addition, there are many private language schools or institutes which offer courses in English for students who want to learn and improve their skills, as English is highly valued as an occupational skill and a platform for professional advancement in the fields of technology, engineering and medicine, among others (Hasan, 2015). The Iraqi educational system has maintained its commitment to the teaching and learning of English even amid ongoing political instability and regional conflict (Altae, 2022).

The education system in Iraq comprises primary education, secondary education (intermediate and preparatory levels), and higher education. While the Ministry of Education directs and supervises the Primary and Secondary Education, the Ministry of Higher Education is responsible for universities and colleges (Jawad & Al-Assaf, 2014). The curriculum and syllabus of Iraqi schools are prescribed by the government through the Ministry of Education. These two ministries have control over the instruction and regulation, being responsible for the appointment of instructors, the selection of curricula and texts, the training of teachers, and all matters pertaining to the public examinations. The Ministry of Education places a great deal of emphasis on the

Baccalaureate Examinations (Grade 12), and the success of students at the end of the primary, intermediate, and preparatory stages depends entirely on their performance on these examinations exams (Altae, 2020; Issa & Jamil, 2010).

English is often taught as a school subject in Iraqi public schools. Teachers typically use textbooks and other materials to teach grammar, vocabulary, reading and writing, and students are expected to complete written assignments and take examinations to demonstrate their mastery of the material (Altae, 2020). In the middle and high school, students learn more advanced English, including more complex grammar and pronunciation. They also read lengthier, more complex content, such as short tales and novels. However, English remains a foreign language in Iraq, as it is not used for daily communication outside the classroom, nor does it function as a societal or institutional language, which significantly limits authentic exposure and input. Unlike contexts aligned with international benchmarks such as the CEFR, Iraqi public-school curricula do not consistently specify proficiency outcomes in terms of internationally recognised levels (e.g., B1/B2) or standardized vocabulary size targets, and large-scale external assessments such as TOEFL or IELTS are not embedded within the national system.

Secondary school students in Iraq take an English proficiency examination at the end of each academic year. It is called a baccalaureate test which is a national and standardised examination. The examination typically assesses grammar, vocabulary, reading comprehension, and guided writing. This proficiency examination which consists of questions that test the reading abilities of students, is based on a scale of 100 percent. A minimum passing grade of 50% is required.

Although Arabic is the official language of Iraq, English instruction has become mandatory in Iraqi schools over the last few decades. During Saddam Hussein's rule, educational programmes in Iraq primarily used Arabic as the language of instruction, with minimal teaching and learning of foreign languages. While taught, English was more common in urban areas than in rural regions, which suffered from a lack of educational resources (Jawad & Al-Assaf, 2014; Rohde, 2013). However, as a result of the political changes following the Iraq War in 2004, the government made concerted efforts to promote English language education, recognising that English has become essential due to globalization and Iraq's increasing participation in international economic activities (Issa & Jamil, 2010).

Despite these changes, learners still have limited opportunities to develop their skills as English remains a foreign language taught in schools. On average, students receive approximately 3–5 hours of English instruction per week, with minimal exposure beyond the classroom, particularly in rural and economically disadvantaged areas. Outside school, learners have very limited opportunities to practice English and develop their English skills. It is observed that rote learning is the most common method used in classrooms. Fundamentally aligned with the behaviorist school (Skinner, 1957; Watson, 1924), this drill and practice method promotes learning and habit formation through repetition. While effective for memorising facts, formulas, definitions and multiplication tables, critics such as Chomsky (1959) and Bruner (1966) point out that this model of learning is essentially passive in nature as it typically views the learner as a passive recipient who absorbs facts instead of actively constructing meaning. Hence, critics also argue that it hinders the development of cognitive skills necessary for processing reading material (Pir, 2024).

Constructivist theorists argue instead that meaningful learning requires active engagement, interaction, and the development of metacognitive awareness (Vygotsky, 1978; Anderson, 2002). While repetition is effective for learning basic vocabulary and grammatical rules, effective reading comprehension demands much more from students. Active reading requires students to have well developed social cognitive skills to engage with the texts to construct meaning. The rote learning methodology practised in most Iraqi classrooms deters students in deprived learning environments from developing analytical and critical thinking skills necessary for effective reading.

Moreover, the English language instructors in Iraq are all local, non-native speakers of English. While the majority of English teachers possess bachelor's degrees in English literature or English education (Altae, 2020) and. Despite possessing adequate language proficiency, most teachers are ill-equipped to teach English to students of varying ages and skill levels (Jawad & Al-Assaf, 2014; Sabti et al., 2019) in large classes. It is observed that there is also a dearth of training programmes focusing on pedagogy and teaching methodology for second and foreign language teaching (Issa & Jamil, 2010; Jawad & Al-Assaf, 2014).

Broader socio-political events that have happened in the last few decades have exacerbated the difficulties in the teaching and learning environment. The combination of prolonged warfare, economic turmoil, and forced family relocations has generated very challenging circumstances that students must confront beyond their school studies

(Altae, 2022). Students in these settings have insufficient access to educational resources such as reading materials and technology. Moreover, the low literacy levels in students' families create barriers to their academic advancement and limit their capacity to aid their children's educational progress. Nevertheless, despite the many challenges, policy makers and educators acknowledge that English language proficiency plays an important role in Iraqi students' academic success for the country's economic development and participation in global affairs.

Overall, English language education in Iraq has faced numerous struggles due to several factors, namely, the profound linguistic differences between Arabic and English, an educational system that prioritises memorisation without offering sufficient authentic English language exposure. Students encounter challenges in developing their English reading skills due to a combination of factors. By implementing educational programmes that develop self-efficacy and effective reading skills, Iraqi students will be more successful academically and professionally.

Reading comprehension is a fundamental academic skill, yet for many EFL learners, it remains a significant challenge. It is a complex process that extends beyond mere decoding to encompass the construction of meaning, the integration of textual information with prior knowledge, and the critical evaluation of content against one's own standards, values, and beliefs. Recent research consistently indicates that EFL learners, including Arab EFL learners, have difficulties in reading comprehension (Bensalah & Guerroudj, 2020; Dehham et al., 2022; Soriano, 2019). These difficulties are manifested in various ways, such as slow and laborious reading, an inability to identify main ideas, poor inferential skills, and a general failure to engage critically with texts. Research findings suggest that these difficulties stem from a confluence of both *language*-related factorsand *reading*-related factors(Al-Jarrah & Ismail, 2018; Al-Nujaidi, 2003; Qrqez & Ab Rashid, 2017; Umek, 2020).

Language-related problems pertain to one's linguistic abilities in the target language, such as vocabulary size, grammatical knowledge, syntactic awareness, morphological knowledge, and decoding/word-recognition skills, which are all critical to performing in a foreign or second language. Language-related problems relate to a learner's fundamental linguistic abilities in the target language, with vocabulary size being paramount. A robust vocabulary is not merely about knowing more words; it is the bedrock upon which reading comprehension is built. As posited by automaticity theory (LaBerge & Samuels, 1974), a reader with a large, readily accessible vocabulary

can recognize words automatically. This automaticity reduces cognitive load, freeing up mental resources that can then be allocated to higher-order processes such as inference, synthesis, and critical analysis. Conversely, a limited vocabulary leads to frequent breakdowns in understanding, forcing the reader to stop and decipher individual words, which disrupts the flow of reading, impedes the construction of coherent meaning, and ultimately undermines comprehension. Research has demonstrated a strong positive correlation between vocabulary size and reading comprehension outcomes (Al-Jarrah & Ismail, 2018; Alzahrani et al., 2021). For instance, Alzahrani et al. (2021) found that vocabulary size was a significant predictor of reading comprehension performance among Saudi secondary school EFL learners, with students possessing a larger vocabulary performing significantly better on reading tasks (see also Al-Nujaidi, 2003; Alahmad, 2020; Maghsoudi & Golshan, 2017). While these findings highlight the critical role of vocabulary, the specific predictive power of vocabulary size for reading comprehension among Iraqi secondary school EFL learners, a group operating within a distinct educational and linguistic context, remains underexplored and requires focused investigation.

Reading-related difficulties, on the other hand, involve the ability to deploy effective reading methods, commonly referred to as reading strategies. These are deliberate, goal-directed attempts to control and modify the reader's efforts to decode text, understand words, and construct meaning (Afflerbach, Pearson, & Paris, 2008). Anderson (1999) suggests that EFL learner's difficulties in reading comprehension result from a combination of *language* and *reading* problems. However, for EFL learners with low language proficiency, the challenges are more likely language-related (i.e., vocabulary size) (see also Fadi, 2019).(Al-Jarrah & Ismail, 2018; Al-Nujaidi, 2003; see also Alahmad, 2020; Alzahrani et al., 2021; Maghsoudi & Golshan, 2017). It is argued that until a threshold of linguistic knowledge (including vocabulary) is met, strategy instruction may have a limited effect, as learners are too consumed by the struggle to decode. This underscores the need to investigate these factors not in isolation, but in tandem.

Reading strategies are broadly categorised into three types: global strategies (i.e., purposeful, planned actions like previewing and using prior knowledge), problem-solving strategies (i.e., actions used when text becomes difficult, like adjusting reading speed or re-reading), and support strategies (i.e., using external references like dictionaries or note-taking). These systematic approaches empower learners to engage

with the text actively and purposefully, leading to more accurate and efficient comprehension (Qrqez & Ab Rashid, 2017; Umek, 2020). Although the positive impact of these strategies is well-documented, a notable gap exists in the literature regarding their specific effectiveness for Iraqi secondary school EFL learners. Given the unique challenges of their learning context, including limitations in resources, pedagogical approaches, and exposure to English, it is vital to investigate how the use of problem-solving, support, and global reading strategies contributes to their reading comprehension.

Despite the considerable body of research on reading strategies and their relationship to reading comprehension, relatively little research has been conducted on the role of learner-related psychological factors that may mediate the influence of reading strategies on reading performance (Muche et al., 2024; Yang & Gan, 2024). Most conceptual models of reading strategy use, such as the Simple View of Reading (Gough & Tunmer, 1986) and metacognitive frameworks (Mokhtari & Reichard, 2002) treat strategy use as a direct predictor of reading comprehension, and not a variable necessarily moderated by other factors. They implicitly assume that the learners who possess and report using more strategies will inevitably achieve higher comprehension scores. What remains unclear, however, is how and under which conditions self-efficacy impacts learners' choice, application, and effectiveness of the reading strategies. Self-efficacy, or one's belief in their capability to successfully perform a task (Bandura, 1997), could be the crucial psychological mechanism that activates and sustains strategy use. A learner may know a range of strategies but lack the confidence to deploy them effectively when faced with a challenging text or may give up easily if initial attempts fail.

This disciplinary gap is becoming increasingly evident in recent literature. For example, a self-regulation training intervention in upper-elementary education increased metacognitive strategy use and reading comprehension (Dermitzaki, 2025; Rollins et al., 2022). Notably, concurrent self-report measures also indicate increases in reading self-efficacy, hinting at a potential mediating relationship among these variables (Dermitzaki, 2025). Similarly, in a study with Saudi EFL university learners, reading strategies were positively related to reading self-efficacy, and both were associated with reading comprehension (Mohammed, 2022). However, this intervention with the few others in this area have not explicitly modelled self-efficacy as a mediator between reading strategies and reading comprehension. They leave open the possibility that

strategy use only translates into improved performance when accompanied by sufficient self-belief and confidence (Bozgun & Can, 2023; Dermitzaki, 2025; Yang & Gan, 2024). Consequently, an integrated understanding of how self-efficacy operates as a psychological mechanism or bridge, or mediator between reading strategies and reading performance is still necessary. Closing this gap is important both for theory, by refining models of reading comprehension and pedagogy by informing the design of more holistic interventions that address not just learners' strategic knowledge, but also their self-belief, empowering them to become more resilient and effective readers.

The need for this integrated investigation is particularly acute for secondary school EFL learners in Iraq. While vocabulary size, reading strategies, and self-efficacy have been identified as influential factors, the vast majority of research has largely focused on university-level learners (e.g., Al-Jarrah & Ismail, 2018; Alsamadani, 2009; Alzahrani et al., 2021), leaving a significant gap in understanding the specific reading challenges faced by secondary school learners(e.g., Al-Jarrah & Ismail, 2018; Alsamadani, 2009; Alzahrani et al., 2021). Studying secondary school learners is critical for several reasons. This age group represents a formative stage in cognitive and academic development, where foundational skills for higher education are solidified. They are often at a critical juncture where the reading demands of their curriculum increase dramatically, moving from learning to read to reading to learn. Understanding their specific challenges is essential for designing timely and effective interventions that can set them on a path to academic success and prevent the consolidation of poor reading habits. In the Iraqi context specifically, the existing literature is dominated by studies that explore students' reading strategies in isolation (Abd Ali et al., 2023; Alsharhani et al., 2023; Dehham et al., 2022; Mukhlif & Amir, 2017; Rahoomi et al., 2019). These studies have not addressed the more complex question of how these strategies directly influence reading comprehension performance, nor have they considered the mediating role of affective factors like self-efficacy or the foundational role of vocabulary size.

Furthermore, previous research in this area has often relied solely on quantitative data collection approaches, such as surveys and comprehension tests. While valuable for establishing correlations, these methods leave significant gaps in our understanding of the complex, dynamic, and often unconscious cognitive and affective processes at play during reading. Recognizing that reading comprehension is shaped by a multitude of interacting factors, the present study aims to delve deeper by employing

a mixed-methods approach. Integrating quantitative measures with qualitative data will illuminate the dynamic interplay between cognitive and affective factors. This methodological rigor will not only enhance the reliability and validity of the findings but also provide a more nuanced and textured understanding of the processes underlying Iraqi secondary school EFL learners' reading comprehension, revealing the "how" and "why" behind relationships.

Given these gaps described above - the limited focus on secondary school learners, the lack of research on the interplay of vocabulary, strategies, and self-efficacy, the predominance of single-factor studies in the Iraqi context, and the scarcity of qualitative depth— there is a clear and compelling need for the present study. By exploring the relationships between vocabulary size, reading strategies, and by investigating the mediating role of self-efficacy, interact and predict reading comprehension, especially in the context of Iraqi secondary school learners, the present study aims to provide a more comprehensive understanding of the factors that influence reading comprehension in English among Iraqi secondary school students. The findings will offer valuable insights for theory and practice. They can serve as an evidence base for the Iraqi Ministry of Education, English language teachers, and researchers, by offering concrete recommendations for improving teaching pedagogy, refining curriculum design, and developing more effective reading comprehension learning materials and resources tailored to the specific needs of Iraqi EFL learners.

1.5 Research Objectives

The present study investigates the complex interplay between vocabulary size, reading strategy use and reading self-efficacy in reading comprehension performance among Iraqi secondary school EFL learners, thereby providing a more comprehensive and nuanced understanding of the cognitive and affective factors that underpin successful reading in this under-research context. In meeting the aims, these objectives of the study were formulated:

1. To determine the types of reading comprehension strategies frequently used by the Iraqi secondary school EFL learners
2. To determine the Iraqi secondary school EFL learners' vocabulary size

3. To examine the relationship between students' reading strategies, vocabulary size, and reading comprehension among Iraqi secondary school EFL learners
4. To investigate the mediating role of self-efficacy in the relationships between reading strategies, vocabulary size, and reading comprehension among Iraqi secondary school EFL learners
5. To explore the challenges encountered by Iraqi secondary school EFL learners in reading comprehension

1.6 Research Questions and Hypotheses

In line with the research objectives stated above, this study seeks answers to the five research questions listed below:

1. What are the types of reading comprehension strategies used by Iraqi secondary school EFL learners?
2. What is the Iraqi secondary school EFL learners' vocabulary size for reading comprehension?
3. What is the relationship between students' reading strategies, vocabulary size, and reading comprehension?

   H1: There is no significant relationship between reading strategies, vocabulary size, and reading comprehension

   H1-1: There is no significant relationship between the global reading strategy and reading comprehension.

   H1-2: There is no significant relationship between the problem-solving reading strategy and reading comprehension.

   H1-3: There is no significant relationship between the support reading strategy and reading comprehension.

   H1-4: There is no significant relationship between vocabulary size and reading comprehension.
4. To what extent can self-efficacy play a mediating role in the relationship between reading strategies, vocabulary size, and reading comprehension?

   H2-1: Self-efficacy significantly mediates the relationship between the global reading strategy and reading comprehension

H2-2: Self-efficacy significantly mediates the relationship between the problem-solving reading strategy and reading comprehension

H2-3: Self-efficacy significantly mediates the relationship between the support reading strategy and reading comprehension.

H2-4: Self-efficacy significantly mediates the relationship between vocabulary size and reading comprehension.

5. How do the Iraqi secondary school EFL learners face challenges in reading comprehension?

1.7 Significance of the Study

This study holds significance across theoretical, pedagogical, and empirical domains, with the potential to make a substantial contribution to the field of EFL teaching and learning related to the development of reading comprehension skills, particularly within the Arab context.

Theoretically, this research aims to enrich the existing body of knowledge by providing a nuanced understanding of the interplay between key variables—vocabulary size, reading strategies, and self-efficacy—and their collective contribution to reading comprehension success among secondary school EFL learners in Iraq. While these factors have been studied in higher education contexts, their specific interaction at the secondary level, a critical formative stage, remains underexplored. By investigating this nexus, the study will offer valuable insights into the mechanisms that either facilitate or impede reading comprehension. The findings will not only raise awareness of these specific determinants among Iraqi educators and researchers but also contribute to the refinement of theoretical models of EFL and L2 reading as established theories of teaching and learning can be refined and extended by contextualising the reading process within the unique linguistic and cultural landscape of the Arab EFL context, potentially revealing context-specific dynamics that influence text comprehension.

In terms of pedagogy especially best teaching practices, this research has the potential to directly inform educational policy, curriculum design, and classroom practice in Iraq and the wider Arab region. A significant proportion of Iraqi secondary school students struggle to meet the English language demands of their curriculum, a factor contributing to disengagement and a notable dropout rate. For instance, recent reports indicate that a considerable number of students in Iraqi intermediate and

secondary schools fail to achieve passing grades in English, hindering their academic progression and future opportunities (Ahmed, 2025; Al Zubaidi, 2021). By identifying the key levers for improving reading comprehension, the findings of this study can equip curriculum planners and policymakers with evidence-based insights to develop more effective teaching methodologies and learning resources. Interventions designed to systematically expand vocabulary, explicitly teach reading strategies, and foster learner self-efficacy could potentially raise students' reading comprehension abilities. Success in such initiatives would not only improve immediate academic outcomes but also help bridge the substantial proficiency gap that often exists between secondary school graduates and the expectations of university-level study, thereby smoothing the transition to higher education and reducing the risk of early academic failure.

From a research perspective, this study addresses a critical gap in the existing literature. Previous empirical work in the Arab world, and Iraq specifically, has predominantly focused on the reading challenges of university-level students. Consequently, the difficulties encountered by secondary school EFL learners have received scant attention. This study directly addresses this gap by providing robust, context-specific evidence on the reading abilities, vocabulary knowledge, and strategic approaches of this younger EFL learners. By generating new knowledge about the factors that can help these students become proficient readers, this research will lessen the empirical gap and provide a much needed understanding to inform future studies.

Furthermore, the practical applications of this research extend beyond Iraq's borders. Arab EFL learners across different regions often share a common challenge: they are learning English as a foreign language in settings where it is rarely used outside the classroom. Therefore, the challenges they face in developing reading skills are often comparable. The findings from this Iraqi-based study could, therefore, be adapted and utilised to design and enhance EFL programmes throughout the Arab world. For example, the insights gained could inform the development of pedagogical frameworks and educational resources specifically designed to build students' reading self-efficacy—a critical driver of motivation, engagement, and strategy selection. When these contextually-relevant insights are considered and adapted by educators and policymakers regionally, they have the potential to contribute to the creation of more effective educational policies that ultimately enhance English reading instruction and improve academic success for EFL learners across the Arab region.

1.8 Limitations of the study

While this study aims to make important contributions to the field, it is necessary to acknowledge its limitations, which also present avenues for future research. First, the scope of this study is confined to a specific population: secondary school students who were in Grade 12 in public (government) schools in Baghdad, Iraq. Consequently, the findings may not be generalisable to other educational contexts within the country, like students outside Bagdad or students enrolled in private schools, which often operate with different curricula, resources, and student demographics. The results should therefore be interpreted as offering valuable insights into this particular population rather than providing a representative picture of all Iraqi EFL learners.

Second, the study's focus was exclusively on the learner's perspective. It investigated vocabulary size, reading strategies, and self-efficacy beliefs through data collected directly from student respondents. Viewpoints of teachers regarding the challenges students face in reading comprehension were not considered. Factors such as teachers' pedagogical skills, their preparation and professional development, and the availability and effectiveness of instructional materials for teaching reading in Iraqi schools remain unexplored. As a result, the findings offer a one-dimensional view of the issue, illuminating student-level factors while leaving the critical role of instructional quality and the learning environment unexamined.

Third, the study investigated only three specific predictor variables—vocabulary size, reading strategies, and self-efficacy—and their relationship with reading comprehension. While these variables were selected based on their theoretical importance, they by no means constitute an exhaustive list. A wide array of other linguistic (e.g., syntactic knowledge, L1 literacy), pedagogical (e.g., instructional time, text type and difficulty), and psychological (e.g., motivation, anxiety) factors are also known to significantly influence the reading comprehension process among EFL students (Liu et al., 2022). Therefore, the findings of this study, while informative, do not provide a comprehensive account of all the factors that may impact reading comprehension among Iraqi EFL learners. Future research would benefit from incorporating a broader range of variables and perspectives to build a more holistic understanding of this complex issue.

1.9 Definition of Key Terms

These are the definitions of the important key terms that are used throughout this thesis.

i. Reading strategies

Reading strategies are defined as the collection of methods and techniques that readers consciously choose to reach a successful understanding of a text (Graesser, 2007). These strategies can lead to more successful comprehension of a text and can be an important step for readers by acting cognitively and metacognitively. This study categorises reading strategies into different types of strategies: Global, problem-solving, and support strategies (Mokhtari & Sheorey, 2002), employed at three phases of reading: before, during, and after reading tasks.

ii. Global reading strategies

Global reading strategies are metacognitive strategies that are applied before the actual reading. The following are instances of global reading strategies:

- "I have a purpose in mind when I read."
- "I think about what I know to help me understand what I read."
- "I review the text first by noting its characteristics and organization."

They are used consciously by a reader to set the stage for reading, activate background knowledge to improve understanding, predict the general idea, determine what the text is about, evaluate the predictions, and make decisions in relation to what to read and the selection of the best reading styles (Mokhtari & Reichard, 2002).

iii. Problem-solving reading strategies

Problem-Solving Strategies are metacognitive strategies that are employed during reading. These strategies include, but are not limited to these following strategies:

- "I read slowly and carefully to make sure I understand what I am reading."
- "I try to get back on track when I lose concentration."

- "I adjust my reading speed according to what I am reading."

They are used mainly to cope with any arising problems or difficulties in reading. In such cases, readers might re-read difficult text/sentences, read slowly, adjust reading speed, guess the meaning, read aloud, ignore difficult words/sentences, and continue reading, analyze the grammatical structure of a difficult sentence, or replace difficult words with similar meaning words. (Mokhtari & Reichard, 2002).

iv. Support reading strategies

Support reading strategies are metacognitive strategies that are used to support readers' understanding of the text while reading through the use of external resources or methods, such as previewing charts, figures, punctuation, tables or bullets, highlighting sentences or parts of the text to remember ideas, using dictionaries, paraphrasing sentences, going back and forth to find relationships, and making note-cards or files after reading to remember or revise text details later (Mokhtari & Reichard, 2002). The following are instances of support reading strategies:

- "I take notes while reading to help me understand what I read."
- "When the text becomes difficult, I read aloud to help me understand what I read."
- "I underline or circle information in the text to help me understand."

v. Self-Efficacy

Self-efficacy is defined as believing in the ability to do things well (Bandura, 1977). Self-efficacy is also viewed as a significant predictor of performance outcomes (Pajares, 1996). According to social cognitive theory (Bandura, 2001), one's beliefs about one's abilities affects task performance. This is why students need to believe in themselves when they are learning something new. It helps them adapt to new situations and do well in their work (Bandura, 1986). The present study investigated self-efficacy in reading to determine ways in which students' beliefs in their ability would influence their reading comprehension.

vi. Vocabulary Size

Vocabulary size refers to the number of words that a person knows and understands in a particular language (Beglar & Nation, 2013). Vocabulary size can vary widely among individuals, depending on factors such as their education level, reading habits, and exposure to different types of language (Nation, 2001). Vocabulary size is often measured using tests or assessments that ask individuals to identify or define a set of words. This study measured students' vocabulary size using Belgar and Nation's (2013) vocabulary size test. An example of the items of the test is the following:

"PATIENCE: He has no **patience**.

A. Will not wait happily
B. Has no free time
C. Has no faith
D. Does not know what is fair."

Participants were required to choose the option closer to the meaning of the word in bold in the sentence "He has no patience". The test had 40 questions of this type. Each question was assigned one mark. Therefore, participants with higher scores on the vocabulary size test suggest they were likely to have higher vocabulary knowledge, thus potentially performing better in their reading comprehension tests.

1.10 Organisation of the Thesis

This thesis is structured as follows:

Chapter 1 introduces the present study and ongoing concerns in the field. It also states the problems and venues left open for current investigation. The research objectives of the study, research questions, significance of the study, limitations of the study, and definitions of key terms are presented and discussed in this chapter.

Next, Chapter 2 reviews relevant literature. This chapter first explains the theoretical perspectives of the study, encompassing the linguistic, cognitive, and metacognitive theories of reading in the literature. It also presents the theoretical and conceptual framework of the study, as well as findings of previous studies on the contributions of vocabulary size, reading strategies, and reading self-efficacy to reading comprehension in the EFL context. The experimental work on the relationships between

these variables and reading comprehension is also revisited and discussed in this chapter.

Following this, Chapter 3 addresses the research methodology of the study and the procedural steps taken to carry out the work. It specifically discusses the research design of the study, the research setting, study population, sampling method, sample size, test instruments of the study, the data collection procedures, ethical considerations, validity and reliability of research instruments, and the statistical methods used to analyse the data.

Then, Chapter 4 presents the data analysis and findings of the study. It presents the results for students' reading comprehension strategies, vocabulary size, the relationship between reading strategies, vocabulary size, and reading comprehension, self-efficacy levels and their mediating role in reading comprehension, and finally, the difficulties in reading comprehension encountered by Iraqi EFL secondary school students.

Subsequently, Chapter 5 discusses the findings of the study. All the research questions of the study are discussed and elaborated to answer the research questions posed in this study.

Finally, Chapter 6 provides a summary of major findings. It also states the contributions of the study, its limitations and provides recommendations for future research, including reflections on the present research and professional context.

CHAPTER 2
LITERATURE REVIEW

2.1 Introduction

This chapter discusses previous work on reading comprehension among EFL learners. It begins with the theoretical perspectives that are regarded as the foundation of empirical research in the literature. It outlines the theoretical and conceptual framework of the present study, discusses the reading strategies among EFL learners and vocabulary size, and addresses the role of vocabulary size, reading strategies, and reading self-efficacy in reading comprehension. The chapter ends with a summary and sets the stage for the research methodology of the present study.

2.2 Theoretical Perspectives

Over the past few decades, numerous theoretical models have been developed to explain the complex process of reading comprehension. This includes the Interactive Model (Rumelhart, 1977, 1980; Stanovich, 1980), the Schema Theory (Bartlett, 1995; Piaget & Cook, 1952), the Metacognitive Theory (O'Malley et al., 1990; Schraw & Dennison, 1994; Schraw & Moshman, 1995), and the Social Cognitive Theory (Bandura, 1977, 1982, 1986). These theories and models have been the most dominant ones in reading comprehension research, where the theoretical assumptions in these models and theories accounted for almost all reading strategies and reading comprehension processes.

2.2.1 Interactive Model of Reading

Reading is a complex cognitive act, and traditional models have captured this complexity through polarised characterisations of elaborate systems of top-down and bottom-up processes (Stanovich, 1980). Foremost among these traditional models is the interactive-reading model, which captures this combination of top-down and bottom-up processes by positing that meaning is constructed through a dynamic interaction between the system and the environment (Rumelhart & McClelland, 1986). The interactive-reading model is one of the first that attempts to capture the simultaneity of

top-down and bottom-up processes. The model manages to capture the dynamism of reading by depicting it as a feedback loop between the system and the environment, and by conceiving meaning as constructed in the interaction that produces it.

Dissimilarly to the traditional views of reading, the interactive reading model does not conceive of reading as a one-way linear process – meaning-making is a two-way between reader and text (Eskey, 2005). From this perspective, we can see how the higher-level meaning-making processes interact with the linguistic microanalysis of which the dichotomies of the traditional approaches prevent any conception (Kim, 2020; Perfetti & Roth, 2017; Wixson, 2017).

The interactive reading model places the reader at the centre of the action: the reader approaches the text with their life experiences and background knowledge at the forefront of their mind, and brings to bear these cognitive strategies during their engagement with the text (Smith et al., 2021; Umek, 2020). And, this engagement with prior knowledge, or the activation of one's schemata, is an important factor in predicting one's ability to understand a text (Rochmah & Wahyuningsih, 2022). Readers bring their extant knowledge to a text, and they use it as a frame to make sense of what they're reading, creating a more robust and integrated understanding (Al Asmari & Javid, 2018; Bensalah & Guerroudj, 2020; Brewer, 2000)

The interactive-reading model acknowledges the contribution of the language elements that constitute the text (Kakvand et al., 2022; Kintsch, 2005), and it explains the fact that reading does involve bottom-up reading processes such as decoding, word recognition and syntactic parsing to first work out the meaning of individual words and phrases. While the top-down model attends to the roles of readers' expectations and prior knowledge, the bottom-up model focuses on the details and nuances of the language itself (Rumelhart & McClelland, 1986; Wixson, 2017). Figure 2.1 below illustrates that these two models provide complementary informations and they feed each other to deepen readers' understanding of the text (Al-Nujaidi, 2003). A reader relies on a bottom-up process (eg, vocabulary size) to help him or her understand a text when he or she does not have the right content schema for it (a top-down variable), but rely on top-down processes (eg, a reader's reading strategies) to help him or her understand when he or she does not have the right bottom-up abilities (Alzahrani et al., 2021).

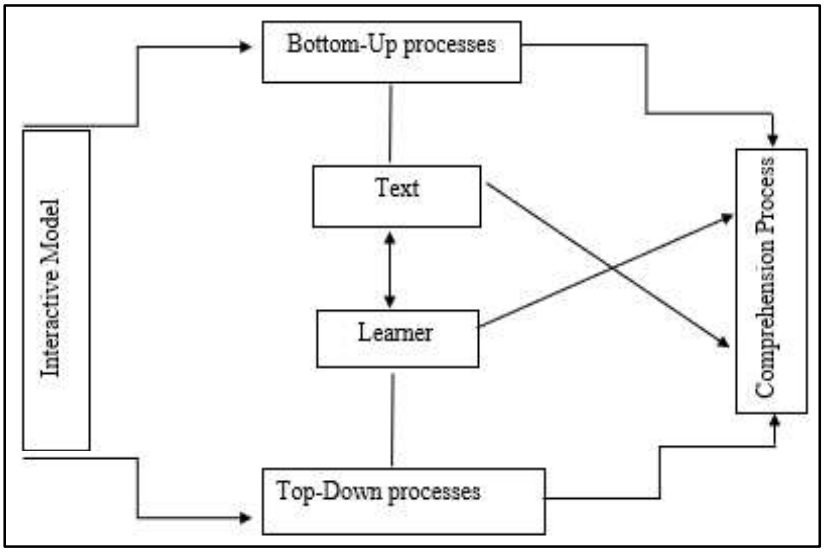


Figure 2.1 Interactive Model of Reading Process

This balanced integration of top-down and bottom-up processes is the defining feature of the interactive reading model. It is emphasised that the interaction between these processes be viewed as a synergistic one, where these higher-level cognitive abilities and the analysis of linguistic details are not working in isolation from each other but instead in a dynamic interplay, where readers are continuously using their knowledge and linguistic skills in combination to create a higher-level, meaningful and coherent understandin (Peng et al., 2023; Smith et al., 2021). Furthermore, the dynamic model of reading highlights the reader's flexibility and the requirement to shift strategies in response to the changing context of the text (Barnett, 1988). The adaptive process of reading involves monitoring and evaluation of comprehension, and revising one's interpretations and predictions when new information calls for those changes (Banditvilai, 2020) Reading is never a static process; it is a dynamic, responsive process.

Active reading strategies also exemplify the dialogue nature of this model. Annotation, questioning and summarisation are not just work that happens to the reader but are tools that prompt the reader to engage thoughtfully with the text (Dua et al., 2020). These strategies prompt readers to interact with the text, so that the act of reading becomes not just a receptive experience but a participatory one (Ahmadian & Pasand, 2017; Banditvilai, 2020; Do & Phan, 2021).

Ultimately, the interactive reading model can be seen as a testament to how reading really works. By incorporating both top-down and bottom-up processing, it can

showcase the dynamic, active process of reading. It can also illustrate how reading can be a collaborative and interactive experience, as opposed to a mere passive one. Readers in this sense become active participants in the sense-making process. And, as a result, they can manage the 'noise' of language and cognition.

2.2.2 Schema Theory

Schema theory (derived from the Greek word schema) is one of the most renowned and powerful of all reading theories, first developed by the British psychologist Bartlett (1995) who described the way in which people use pre-existing mental structures – called schemas – to organise and make sense of new information (Piaget & Cook, 1952).

The overarching principle is that readers' prior knowledge, experience and expectations influence how they make meaning out of new information; a schema (Rumelhart & Norman, 1976). A schema is an idea that readers use to make sense of their world by categorising new information with past knowledge. In relation to reading comprehension, schema theory proposes that readers' schemas help them make meaning out of texts (Brewer, 2000; Carbon & Albrecht, 2012; McVee et al., 2005).

Essentially, the schema idea is that a reader develops in her mind a mental framework or template – derived from experience and culture – that she can deploy in reading a text (Boutyline & Soter, 2021; Derry, 1996). A reader of a text about a birthday might have a schema for a birthday party – involving cake, presents, decorations and celebration – that she brings to bear on the text and with which she can make sense of it. If the text refers to eating pie, she will 'slot in' such a detail for the missing cake.

A key principle of schema theory is the distinction between assimilation and accommodation (Hanfstingl et al., 2021). Information that is consistent with a given schema allows for assimilation because the reader can integrate the information into their schema without changing it. Information that is inconsistent with a given schema, however, requires accommodation: the reader must change their mental schema to incorporate the discrepant information. When confronted with new information, readers employ accommodative processes. For instance, if a reader discovers unexpected facts about someone they believed they understood well, they may adjust their mental understanding of that person to include this new data. Revising existing schemas

enables readers to maintain their mental framework by the most current and accurate understanding of the world (Bormanaki & Khoshhal, 2017; Wachtel, 1980).

Since then, it has received significant empirical support from what cognitive psychologists and educators have found when studying reading comprehension (Al Asmari & Javid, 2018; Cho & Ma, 2020; Rochmah & Wahyuningsih, 2022; Soriano, 2019; Yang, 2023). Research findings have consistently shown that readers with robust schemas for a particular subject domain read and remember information related to that domain more effectively. Schemas are also helpful for teachers because they give greater importance to pre-activating and fostering the activation of students' knowledge (prior to presenting new material) rather than just focusing on the material itself.

However, as many critics have pointed out, schema theory has faced criticism and challenge in a number of ways over the years (Axelrod, 1973; Rest et al., 1999). For one thing, researchers have argued that schema theory suffers from being too reductionist in focusing on the contribution of pre-existing knowledge to reading comprehension (eg, Al-Nujaidi, 2003). For another, it might be difficult for the theory to explain how people can understand any texts at all in domains where they have little or no prior knowledge (McVee et al., 2005).

In sum, schema theory offers readers a useful way to think about the processes of reading comprehension, by emphasising the role of schemas in comprehending text, and by bringing attention to readers' use and relevance of their prior knowledge and preexisting mental models. It is particularly helpful as a way of understanding how readers engage actively in making sense of written text. Though at times criticised and the topic of much debate in academic circles, the persistence of schema theory, and its reliance on the concept of schemas, shows how it has proven a powerful tool for generating new knowledge about reading, and how it has influenced the field as a whole.

2.2.3 Metacognitive Theory

In cognitive psychology and educational research, the term 'metacognition' is most often deployed in theories of reading comprehension – both as an account of what happens when a person engages with text and, more broadly, as a concept for thinking about learning. Metacognition is 'self-regulation of cognition, including attending to, monitoring and regulating cognition during learning and problem solving (O'Malley et al., 1990). When applied to reading comprehension, metacognitive theory suggests that

good readers are not only skillful readers but also actively monitor, control and reflect on their cognitive processing as they read (Schraw & Dennison, 1994; Schraw & Moshman, 1995).

Central to metacognitive theory is metacognitive knowledge, which is further categorised as either declarative knowledge (knowledge about oneself as a learner) or procedural knowledge (knowledge about how to complete specific learning tasks) (Edossa et al., 2019). Declarative knowledge relates to knowledge about one's strengths and weaknesses as a reader, and procedural knowledge relates to knowledge about how to use specific reading comprehension strategies (Fahrurrozi & Hasanah, 2020).

Metacognitive reading strategies can be divided into three main phases: planning, monitoring and evaluating (Muhid et al., 2020). Planning involves setting goals and formulating a purpose to read, which consists of activating relevant prior knowledge and establishing specific strategies to employ. Monitoring is the process of assessing whether one is comprehending while reading – adjusting the comprehension strategies if necessary. Evaluation is carried out after reading and involves reflecting on the comprehension, assessing the effectiveness of the strategies used, and considering how one can approach similar tasks in the future (Bria & Mbato, 2019; Do & Phan, 2021).

A cornerstone of metacognitive theory is metacognitive awareness – the ability to monitor one's cognitive processes and self-regulate them (Do & Phan, 2021; Mokhtari & Reichard, 2002; Yousif, 2012). Readers with high metacognitive awareness can judge their understanding of a text and bring to bear strategies that will help them address comprehension problems. Metacognitive awareness is also how a reader knows when they need to slow down or speed up their reading, clarify a difficult concept or bring other strategies to bear on the task of comprehending the text (Jun Zhang, 2001; Song et al., 2020).

Experimental work in the metacognitive tradition shows that metacognitive reading instruction leads to gains in reading comprehension (Muhid et al., 2020). Programmes explicitly teaching students metacognitive strategies for reading, such as summarising, questioning, and monitoring, improve reading comprehension (Teng, 2020). Students also benefit when a supportive learning environment encourages metacognitive reflection on their reading processes and helps them develop a sense of agency as learners (Edossa et al., 2019; Mohseni et al., 2020).

Although metacognitive theory is a useful guide for how to help students maintain their comprehension, the concept of metacognition is elusive, and it is difficult to measure it objectively (Fiedler et al., 2023). Individual differences in metacognitive abilities may inhibit the usefulness of metacognitive strategies and personalised and flexible instructional strategies are needed (Grabman & Dodson, 2024; Kelemen et al., 2000; Teng, 2020).

In recent years a few studies have addressed the issue by investigating the role of metacognitive strategies in reading comprehension (Do & Phan, 2021; Mohseni et al., 2020; Muhid et al., 2020; Teng, 2020). For example, a study by Schraw and Dennison (1994) showed that the metacognitive strategies would help the students to have good reading comprehension through such metacognitive strategies as self-monitoring and self-evaluation. In addition, in a study by Baker and Brown (1984), the researchers suggested that metacognitive strategies such as summarising and prediction are effective ways to improve the students' reading comprehension. In the present study, the researcher aims to investigate whether the students' metacognitive strategy can influence their reading comprehension. According to the metacognitive theory, metacognitive reading strategy plays a crucial role in the process of students' reading comprehension (Bria & Mbato, 2019).

To summarise, metacognitive theory leads to a more dynamic view of the reading process because it emphasises the active, reflective nature of reading over a passive reception model. The focus on metacognitive knowledge and awareness in the metacognitive theory emphasises the importance of teaching students the skills of monitoring and controlling their cognition. Within the present study, the researcher will examine how students' metacognitive strategy use contributes to their reading comprehension. Metacognitive theory suggests that metacognitive reading strategies have a major influence on students' reading comprehension process.

2.2.4 Cognitive Theory

Social Cognitive Theory, first proposed by Albert Bandura (2001), expands our understanding of cognition by incorporating social interactions into the learning and meaning-making process (Schunk & Usher, 2012). According to Social Cognitive Theory, individuals do not only learn through their own experiences. They also learn through observing the experiences of others in a social context (Schunk & DiBenedetto,

2020). In regards to reading comprehension, Social Cognitive Theory emphasises how social factors shape students' ability to acquire, process and use information from written text.

A central tenet of Social Cognitive Theory is observational learning, or learning from observing others. It is in this way that novice learners acquire new skills or information from observing expert models (Eekhof et al., 2021). Therefore, observational learning plays a crucial role in the development and accumulation of such strategies; hence, struggling readers can learn from observing more cognitively able readers (or their teachers) as they read and discuss texts. In social interactions, we can acquire new ways of seeing, interpreting, and understanding textual content (Chen et al., 2020).

One specific component of Social Cognitive Theory applicable to reading is modelling (Schunk, 2013). Modelling refers to modelling behaviours or thought processes for others to see and then copy. In relation to reading, proficient models could include teachers, peers, or even characters in the text (Dehham et al., 2022; Muhid et al., 2020; Oranpattanachai, 2023). When learners see good readers working through a text, they can internalise techniques, such as effective questioning, summarising, or inferencing, which can help with reading comprehension (Song et al., 2020).

Social Cognitive Theory also highlights the concept of self-efficacy, which he describes as 'people's judgments of their capabilities to organise and execute courses of action required to attain designated types of performances' (Bandura, 1977, 1982, 2012). When it comes to reading comprehension, self-efficacy can be a major factor in whether a reader approaches a text with motivation and tenacity – or if they give up easily. Positive social experiences, appropriate feedback, and successful reading experiences are factors that can help build reading self-efficacy, increasing confidence and feelings of competence.

Consequently, a student with high reading self-efficacy will feel a certain passion, enjoyment and excitement when they start off on a reading task and they will have confidence in their ability to complete the task successfully. Meanwhile, a student with low reading self-efficacy will experience feelings of reading anxiety due to their uncertainty about the nature of the task before them and about their capacity to carry out the task successfully (Naseri & Zaferanieh, 2012; Oranpattanachai, 2023; Sofyan & Jayanti, 2019).

In addition, the social nature of reading comprehension is also reflected in settings that promote collaborative learning. Social Cognitive Theory suggests that reading comprehension can be supported through collaborative learning, such as group discussions, peer tutoring, or literature circles, because students have the opportunity to share their ideas, discuss their own interpretations, and learn to construct meaning together (Abuhamda et al., 2021; Espitia Pelaez, 2014).

While Social Cognitive Theory is a valuable resource for understanding the social dimensions of reading comprehension, it is important to recognise potential limitations or challenges. For example, the theory might not fully explain individual differences in learning styles and preferences, how different modalities of social interactions affect comprehension, and other factors (Van den Broek et al., 2015). Moreover, the influence of social factors on reading comprehension can differ depending on the context, such as cultural factors and the specific educational environment (Bandura, 1986; Lee, 2020).

To conclude, Social Cognitive Theory adds to our understanding of reading comprehension because it presents it as an interactive, social process (Bandura, 2001). By bringing to the fore the role of social influences, the theory shows how modelling and observational learning can be useful for developing readers and their comprehension skills through social interactions. As educators and researchers continue exploring the connection between Social Cognitive Theory and reading comprehension, it is becoming increasingly clear that social processes and cognitive processes are intertwined in the development of strong reading comprehension skills (Dodge, 2013; Schunk, 2013; Schunk & DiBenedetto, 2020).

2.3 Theoretical Framework of the Study

Reading comprehension is a complex interaction between the text and the cognitive processes of readers. The theoretical structure of the study represented by Figure 2.2 below captures the complexity of this interaction through the combination of the major theories and processes that underpin the process of comprehension. At the centre of the figure is the Interactive Model of Reading, as well as the bottom-up and top-down processes, which represent the dynamic interaction that takes place between the linguistic features of text and the cognitive processes of the reader. Bottom-up processes refer to the way in which the reader decodes the linguistic features of the text,

whereas top-down processes involve the interaction of prior knowledge and cognitive strategies to help readers make sense of the text.

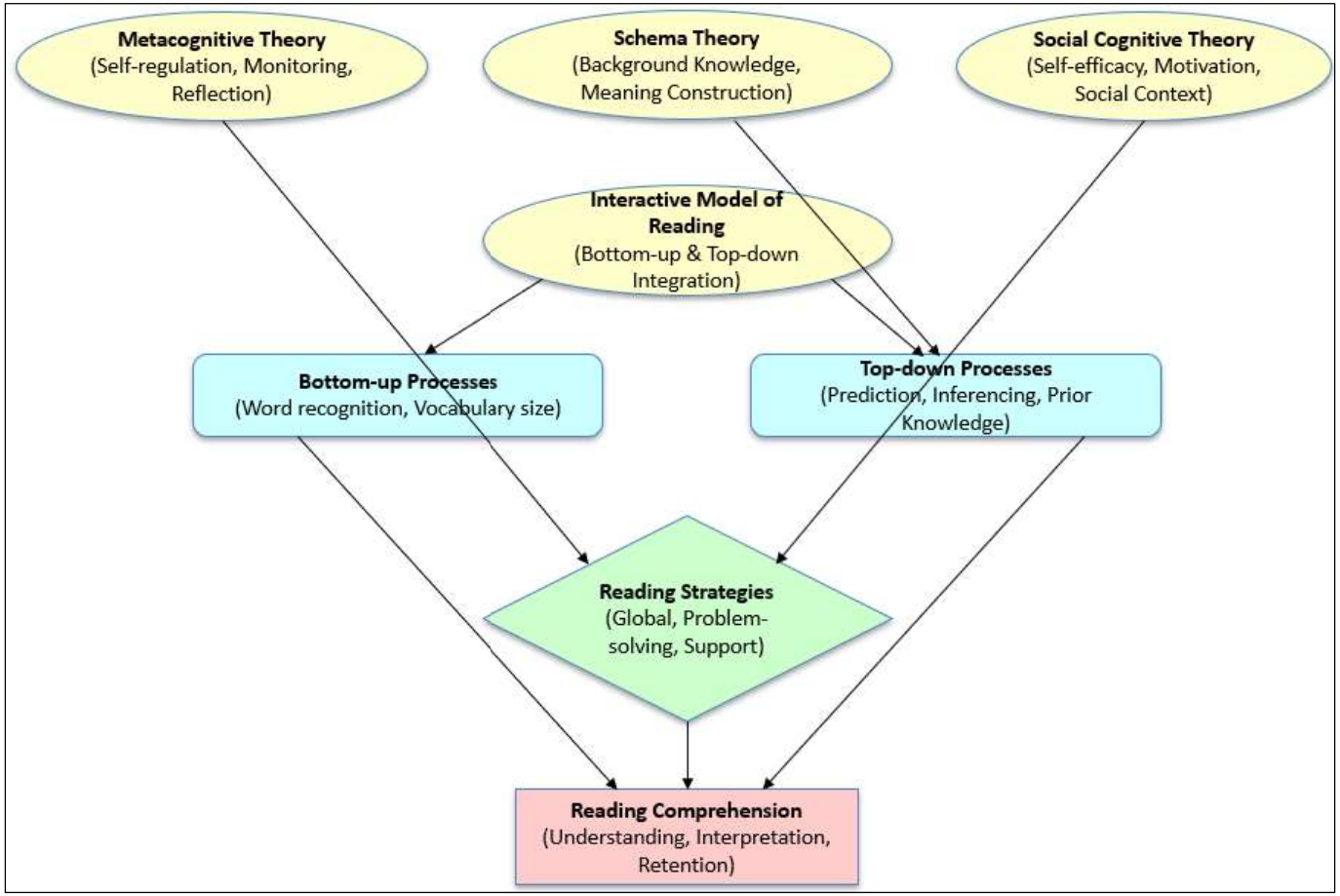


Figure 2.2 Theoretical Framework of the Study

As shown in Figure 2.2, this study is grounded in an integrative theoretical framework of reading comprehension. At its core is the Interactive Model of Reading, which posits that successful comprehension is a dynamic product of both bottom-up processes, such as efficient word recognition and a broad vocabulary, and top-down processes, like making inferences, predictions, and activating prior knowledge. These processes are guided by an individual's cognitive schemata, as explained by Schema Theory, wherein existing background knowledge structures are essential for constructing meaning from text.

Furthermore, the framework is enriched by Social Cognitive Theory, which emphasizes the role of motivation, self-efficacy, and the social context in engaging with reading material. The active application of specific reading strategies (e.g., global, problem-solving, and support) is crucial for navigating texts, and this entire process is managed through metacognitive theory, which involves the reader's ongoing self-regulation, monitoring, and reflection to ensure understanding, interpretation, and long-term retention.

2.4 Conceptual Framework of the Study

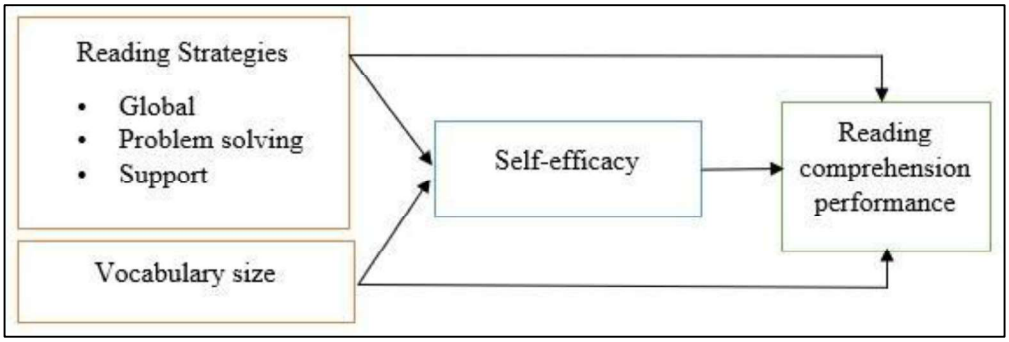
This study examines the complex relationships among students' reading strategies, vocabulary size, and reading comprehension in a sample of Iraqi secondary school students, with self-efficacy as a mediator. The premise of this study is that the understanding of these interrelationships will have significant implications for instruction and teaching practices (Alharbi, 2021; Oranpattanachai, 2023; Shehzad et al., 2021).

Based on Bandura's Social Cognitive Theory (Bandura, 1986, 2001), the theoretical background emphasises that learners' efficacy beliefs (the extent to which they believe they can perform certain tasks) are important in the learning process (Bandura, 1982, 1997). Bandura's theory of self-efficacy suggests that self-efficacy beliefs have an influence on how much motivation, effort, and persistence learners put towards overcoming challenges. In reading comprehension, self-efficacy is suggested to be a mediator between reading strategies and vocabulary size and comprehension of written texts (Alharbi, 2021; Cho et al., 2021; Delgado-Vásquez et al., 2022; Martinez, 2019; Shehzad et al., 2019; Sofyan & Jayanti, 2019; Taghizadeh & Jamali, 2018).

Reading strategies, understood as methods used while reading, constitute the core of this research. It explores the different strategies used by readers to understand a text, from global reading strategies to problem- strategies and support strategies, which are considered essential to guide the cognitive processes leading to text comprehension. (Hasan, 2015; Mokhtari & Reichard, 2002; Song et al., 2020)

Vocabulary size is known to be a key component of language proficiency, as it is believed that a larger vocabulary allows readers to gain deeper comprehension of text by identifying more distinctions in meaning and allowing readers to make inferences (Alzahrani et al., 2021; Dong et al., 2020; Tan & Goh, 2017; Zhang & Zhang, 2020). Therefore, vocabulary size is thought to play a major role in the complex reading comprehension process by helping readers to understand unfamiliar words, identify words in context, recognise nuances in syntax and distinguish connotations of words, and ultimately comprehend and interpret text (Alzahrani et al., 2021; Duff & Brydon, 2020; Peter et al., 2019; Zhang & Zhang, 2020).

A conceptual model showing the nature of the relationship among the reading strategies, vocabulary size, and reading comprehension variables through the role of self-efficacy is illustrated below in Figure 2.2. It is hypothesised that the readers who have higher self-efficacy on reading are more likely to use more effective reading strategies and utilise their vocabulary knowledge better, which in turn influences their understanding of any written content (Javad & Masood, 2019; Jiang, 2023; Shehzad et al., 2019). Self-efficacy as an intervening variable is playing a vital role in explaining the psychological mechanism that is responsible for the relationship between the use of reading strategies and vocabulary size with comprehension.



- Independent variables: Reading strategies, Vocabulary size
- Mediating variable: Reading self-efficacy
- Dependent variable: Reading comprehension performance

As illustrated in the figure above, the participants' vocabulary size, reading strategies, including global, problem-solving, and support strategies, are the independent variables in this study. Self-efficacy is the mediating variable, whereas students' reading comprehension performance is the dependent variable. It is worth noting that the study aims to investigate whether students' use of reading strategies, or global, problem-solving, and supporting strategies, would increase vocabulary size and reading comprehension, and how self-efficacy can mediate the relationships between these variables and reading performance. Based on the literature, students' self-efficacy in reading could be a facilitating factor that might enrich our understanding of the reading material and improve reading comprehension performance (Delgado-Vásquez et al., 2022; Henk & Melnick, 1995; Oranpattanachai, 2023; Sofyan & Jayanti, 2019).

In sum, this study investigates the mediating effect of self-efficacy in the relationship between reading strategies and vocabulary size on the reading comprehension performance of Iraqi students in public schools in Iraq. Based on theoretical models and empirical evidence, this study attempts to unfold the dynamic between reading strategies, vocabulary size, and reading comprehension mediated by self-efficacy.

2.5 Reading Strategies

Reading strategies are an important topic of research in both first- and second-language reading. An effective reading strategy may be defined in general terms as a "goal-directed, intentional, planful, and conscious process of text processing, comprehension monitoring, and comprehending or solving problems that readers may attempt to construct meaning from a text" (Afflerbach et al., 2020; Grabe & Stoller, 2019). A major aspect of reading strategies is that they are not automatic like basic reading skills, but rather require conscious awareness, attention, and a flexible approach to the reading task, the text, and the context. Strategies are the process through which the reader connects the knowledge with that in the text, and because of that, a reader's comprehension of a text is an active and self-regulated mental process (Ahmad, 2024; Dermitzaki, 2025; García-Pérez et al., 2021).

A look at the history of the development of reading strategies research reveals how the conceptualization of strategies is dependent on the theoretical approach to reading and the process of text comprehension. The initial stages of this research

coincide with the period of a change in perspectives about reading. In the first bottom-up model (Gough et al., 1972). Reading was reduced to a decoding process that required the recognition of letters and words that served as input for building comprehension. The top-down approach (Goodman, 1967; Kintsch, 2005) shifted the focus from the text to the reader's activity and suggested that predictions made by the reader on the basis of background knowledge and the context are central to reading. The next stage was associated with the interactive model (Rumelhart & Norman, 1976; Stanovich, 1980), which views reading as an interactive process of the input from the text and the reader's knowledge. This stage could be considered the final one for the conception of reading as an automatic decoding process and the starting point for the cognitive and metacognitive view of reading as a strategic activity.

In the 1980s, cognitive psychology (Anderson, 2002) and the theory of metacognition (Flavell, 1979) considerably influenced reading research. The researchers began to study the processes that a reader experiences during text comprehension in order to understand how they think about reading and how they regulate their own processes. As a result, the term strategic reading was introduced to define a reading process with a clear intention and conscious use of several tactics, such as predicting, summarizing, clarifying, and evaluating understanding (Graesser, 2007; Nguyen, 2022). In other words, the term was connected to metacognitive awareness, which is a conscious control of one's own understanding during reading (Baker & Brown, 1984). The studies also found that effective readers not only have a large set of strategies but are also aware of how to use and when to use them (Dermitzaki, 2025; Teng, 2020).

For research in the EFL and ESL contexts, the study of reading strategies became an important field because it was found that EFL and ESL learners use strategies much more than native speakers. The EFL and ESL contexts are very different from L1 reading because they are often characterized by greater attention to individual components of reading, thereby hampering automatic processing (Grabe & Stoller, 2019). In addition, the presence of linguistic and cultural challenges for EFL readers forces them to use more strategies to compensate for a lack of vocabulary or grammatical knowledge (Grabe & Stoller, 2019; Solomons, 2023). Empirical research supports these observations and found that the strategic awareness, especially the skills to plan and monitor one's reading process, is one of the key features of an effective EFL reader (Do & Phan, 2021; Habók & Magyar, 2018; Payaprom, 2023). The focus on the

role of reading strategies also contributed to their use in the EFL and ESL contexts as an important pedagogical tool for helping students to become independent and self-regulated (Grabe & Stoller, 2019; Oxford, 2016).

The current view of reading strategies also extends the scope of this concept beyond the cognitive and metacognitive aspects of reading. There is evidence that successful readers are not only those who have cognitive and metacognitive abilities but also are socially and affectively intelligent. In particular, these readers are highly motivated and enjoy the reading process (Do & Phan, 2021; Payaprom, 2023). Other research highlights the importance of emotions for the cognitive and metacognitive processes involved in reading (Dewaele & Alfawzan, 2018). This work also shows that students may also be affected by their expectations about reading tasks, as well as the influence of other students and teachers. In addition, the development of digital reading environments has affected reading strategies and research on these strategies: the contemporary readers are required to use not only traditional cognitive and metacognitive skills for reading but also such strategies as evaluating the credibility of online sources, integrating information from different media, and compensating for various distractions (Hahnel et al., 2023; Leu & Zawilinski, 2007). In other words, these results also show that reading strategies are not stable techniques that are always used in the same manner. On the contrary, reading strategies depend on the context and purposes of reading, which are now more varied than ever.

To summarize, the history of research on reading strategies shows that this field has expanded from a rather narrow focus on the mental processes related to decoding and text processing. The research on reading strategies now includes such areas as the cognitive and metacognitive aspects of strategies, their affective and social dimensions, and the cultural and contextual factors that have an impact on strategy use. To reflect this diversity, various taxonomies of reading strategies have been developed, which will be discussed in the following section.

2.6 Classifications of Reading Strategies

Taxonomies of reading strategies have developed as part of wider theoretical and empirical advances in the fields of cognitive psychology, applied linguistics, and literacy studies (Lorch Jr & Van Den Broek, 1997; Nguyen, 2022). Although early classifications were largely focused on the cognitive dimensions of processing,

subsequent work has led to more inclusive and complex models that also take into account affective, social, and contextual variables. This section reviews major classification systems that have had a major impact on the research and scholarship of reading strategies and their underpinnings, as well as how each addresses a multi-dimensional view of reading.

2.6.1 Cognitive and Metacognitive Strategies

The broadest and the oldest way of classifying reading strategies distinguishes between cognitive and metacognitive ones (Anderson, 2002; O'Malley & Chamot, 1990). This dichotomy has its roots in cognitive psychology and learning theory: Flavell (1979) originally proposed to understand metacognition as knowledge and regulation of one's own cognitive processes. Reading researchers (Anderson, 2002; Baker & Brown, 1984; O'Malley & Chamot, 1990) then divided the mental operations that underlie text comprehension into those that are involved in direct processing of the text (i.e., cognitive) and those that "regulate" these processes (i.e., metacognitive). In this way, these two broad categories of strategies reflect two inseparable aspects of the reading process: reading as an operation of sense-making and reading as an activity of deliberate self-regulation.

Cognitive reading strategies are what readers actually do to make sense of a written text: these include such operations as summarizing, paraphrasing, inferencing, translating, predicting, and scanning for main ideas (Grabe & Stoller, 2019). Cognitive strategies act on the information provided in the text and are typically deployed to decode its linguistic form (e.g., words, sentences) or to elaborate on its informational content (e.g., semantics, ideas). An example of a cognitive strategy might be an EFL learner using context to guess the meaning of a new word: this is a strategy because it is a deliberate, goal-oriented procedure that helps the reader build a mental representation of the written message. Cognitive reading strategies are thus considered to be instrumental, text-based, and locally and globally oriented toward meaning construction (Stranovská et al., 2020; Zhang et al., 2017).

Metacognitive reading strategies, by contrast, are typically defined as executive processes that readers use to plan, monitor, and evaluate their own comprehension. Planning includes all preparatory procedures that set the reading in motion: from goal-setting to text previewing to forecasting of potential difficulties (Do & Phan, 2021;

Grabman & Dodson, 2024; Teng, 2020). Monitoring involves the reader's awareness of his or her own understanding during the reading, as, for instance, in the recognition that a sentence does not make sense and the decision to reread it. Evaluation, finally, refers to a post-reading judgment as to the overall extent of comprehension and the satisfaction of the learning goals (Afflerbach et al., 2020; Anderson, 2002). In contrast to cognitive strategies, metacognitive strategies do not work on the text directly; rather, they control when, why, and how cognitive strategies are activated. As such, they capture the self-reflective component of reading and have a strong affinity with the concept of self-regulated learning (Zimmerman & Schunk, 2013).

Research in many different contexts and with various groups of readers has consistently shown that skilled native or second-language readers use metacognitive strategies both more effectively and more frequently than less proficient readers (Habók & Magyar, 2018). To be successful, it is not enough for a reader to simply know how to construct meaning from a text; they must also be able to regulate the use of cognitive strategies, knowing when and why to use which strategy, for what purpose, depending on the task, text, and reading objective (Grabe & Stoller, 2019). For example, in EFL settings, where a lack of language skills often prevents the reader from automating the bottom-up process of meaning construction, metacognitive awareness of the reading process can help students compensate for their limitations by actively and adaptively managing their own behavior before, during, and after reading (Kitichaidateanan & Sukying, 2024).

The dichotomy of cognitive and metacognitive strategies has recently been extended to dynamic models of reading regulation, which see the relationship between these two categories of strategies as cyclical rather than linear (Kitichaidateanan & Sukying, 2024; Zhang et al., 2017). Readers repeatedly alternate between the use of cognitive strategies and the control of their efficiency, continuously monitoring the effectiveness of their approach and adjusting it as comprehension unfolds. Thus, rather than being a static and stable trait, the ability to read strategically is defined by a constant interplay between cognition and metacognition.

For this reason, the cognitive–metacognitive distinction remains central to the field of reading strategies, as it captures both the mechanics and the awareness necessary for successful sense-making. This dichotomy also forms the basis for many later taxonomies and instruments, including the Metacognitive Awareness of Reading Strategies Inventory (MARSI; Oxford, 1990) and the Survey of Reading Strategies

(SORS; Oxford, 1990). Both of these well-known questionnaires have served as the foundation for decades of research into strategic reading.

2.6.2 Affective Strategies

Extended from the broad theories of self-regulated learning (Oxford, 2016; Zimmerman & Schunk, 2013), current research in reading is increasingly adopting the view that affect is not a secondary variable in reading strategy use but an integral self-regulation system that controls comprehension. Affective strategies refer to a set of deliberate actions used by a reader to manage emotions that might interfere with or facilitate understanding, such as anxiety, confidence, interest, and motivation (Dornyei & Ryan, 2015; Oxford, 2016). In reading, emotions influence attention, persistence, and comprehension monitoring, all of which are crucial for reading performance. Anxiety or low confidence, for example, can lower processing capacity and thus affect comprehension (Pekrun, 2021). In short, affective strategies are used to regulate one's own emotional states and thus keep the mind focused and engaged when reading texts.

Examples of affective strategies in reading include positive self-talk (e.g., "I can understand this if I read carefully"), relaxation techniques, taking a break when frustrated, or rewarding oneself for progress (Oxford, 2016). By boosting confidence and inducing relaxation, these techniques help learners stay emotionally balanced and in control of the reading process. On an instructional level, students who can use affective regulation techniques are more likely to stick with a difficult text and show better comprehension results (Teng & Zhang, 2020). In this way, affective strategies mediate the impact of emotion on reading strategy use and outcomes, thus further supporting the perspective that emotions are a key determinant of strategy effectiveness.

In L2 reading, affective factors play an even more important role, as L2 learners are often reported to experience more anxiety, linguistic insecurity, or fear of failure when exposed to L2 reading tasks (Alsharhani et al., 2023; Dewaele & Alfawzan, 2018). In this context, affective strategies seem to interact closely with another variable, self-efficacy or the beliefs about one's own L2 reading ability. Studies show that high self-efficacy is positively related to persistence in reading tasks, growth-mindset, and effort after meaning, even after failed comprehension attempts (Dermitzaki, 2025; Gunawan & Wulandari, 2024; Liu et al., 2024). On the other hand, low self-efficacy often predicts avoidance strategies, such as avoiding difficult texts or disengaging from texts when

difficulties arise. Affective regulation can thus be seen as a protective mechanism against emotional interference, used by readers to stay motivated and in control of their emotions when reading, alongside other regulatory processes, such as cognitive and metacognitive regulation.

Recent attempts to model metacognition and regulation in L2 reading have started to include affective regulation in their frameworks (Habók & Magyar, 2018; Teng & Zhang, 2020), thus helping conceptualize the shift to an emotionally intelligent reading approach. These models typically position cognition and affect as two subsystems that are mutually regulated. On the one hand, being aware of and recognizing emotional states, such as anxiety or confidence, is seen as a form of metacognitive monitoring. On the other hand, metacognitive control processes (e.g., rereading, slow reading, etc.) are also supposed to affect emotional states, thus closing the regulatory loop. For example, a reader who notices they are anxious may then slow down and reread a text in order to return to a state of comprehension. The key point is that cognition and affect are thus closely intertwined in this perspective, with both required for successful reading.

As such, the expansion of reading strategy research to include affective and motivational variables is a sign of a theoretical shift away from a cognitivist understanding of reading toward a self-regulated reading model, in which managing emotions is as important as making sense of the text.

2.6.3 Compensatory or Support Strategies

Compensatory or repair strategies are a particular set of conscious self-regulatory strategies used by readers to repair or compensate for comprehension breakdowns or knowledge gaps in linguistic or background knowledge (Lundberg & Leong, 1986). They involve purposeful actions that help maintain the continuity of meaning construction and prevent getting stuck when faced with language or content difficulties, such as unknown vocabulary, complex syntax, missing inferences, and cultural references (Grabe & Stoller, 2019). As Grabe and Stoller (2019) state, compensatory strategies are essential for effective reading in second or foreign languages, where learners may not possess the full linguistic competence needed for automatic or fluent comprehension. Some common compensatory behaviors include rereading, guessing, slowing down or speeding up, skipping, and using dictionaries or

translations. These strategies can be seen as instant or on-the-spot tools for repairing comprehension breakdowns and restoring local coherence in text processing.

Cohen (2012) differentiates between reactive and proactive compensatory strategies, depending on when they are used in the reading process. Reactive strategies are those that are applied in response to comprehension problems after they occur, such as rereading a sentence or a passage, reanalyzing a sentence structure, or checking previous parts of a text for clarification. Proactive strategies are used before comprehension problems arise, with a preventive function. These include previewing a text, looking up or predicting important vocabulary, or activating background knowledge. This distinction highlights the dual and dynamic nature of compensatory strategies as a complex and adaptive skill: expert readers constantly monitor their comprehension and deploy various repair techniques flexibly depending on the text features, reading purpose, and time constraints (Anderson, 2002; Zhang & Zhang, 2020).

From a cognitive perspective, compensatory strategies can be viewed as the behavioral manifestation of metacognitive control. They are initiated by readers' comprehension failure awareness and involve regulating their problem-solving behavior (Baker & Brown, 1984; Teng, 2020). This close relationship with metacognition explains why compensatory strategies are seen as simultaneously cognitive and metacognitive, with the former in their use and the latter in their activation (Cohen, 2012). In other words, the ability to diagnose a loss of meaning and to reread to regain it are two different processes that are coordinated skillfully by proficient readers. This link with metacognitive awareness is the reason why good readers are more likely to use compensatory strategies and, in general, perform better in using a range of reading strategies (Habók & Magyar, 2018).

Compensatory or repair strategies are even more important in EFL settings, where the reader's language proficiency and limited exposure to authentic texts make comprehension breakdowns more common (Lundberg & Leong, 1986). EFL learners often need to compensate for lexical gaps by consulting dictionaries, using translations, or guessing words from context. However, studies show that relying too much on local repair strategies, such as word-for-word translation, can have a negative effect on global comprehension and text-level meaning construction (Grabe & Stoller, 2019). Rather, skilled readers use compensatory strategies judiciously and strategically, depending on the reading situation, and integrate them with other higher-level strategies. For instance,

when time is limited, and the local meaning is not critical for the overall understanding, a reader may decide to skip a word or a passage.

The recent work of Rollins et al. (2022) and Takács et al. (2021) demonstrates that compensatory strategies are not just a means of coping with comprehension difficulties but an adaptive and self-regulatory skill that enhances reading resilience and persistence. Compensatory strategies can help EFL learners maintain reading engagement, reduce frustration, and increase their confidence by providing them with ready solutions to comprehension problems. In fact, the use of compensatory strategies has been found to have a positive relationship with reading self-efficacy and motivation: readers who have a firmer belief in their ability to cope with and overcome reading difficulties are more likely to engage in compensatory strategies than to disengage from reading (Dewaele & Alfawzan, 2018).

In summary, compensatory or repair strategies are a specific group of conscious self-regulatory strategies that readers use to fix or circumvent comprehension breakdowns or knowledge gaps. They are a response to local meaning loss and an attempt to restore local coherence. While they are just one aspect of the large and diverse group of reading strategies, they can be regarded as a necessary one because of the interactive and self-regulatory nature of successful reading. For EFL learners, the awareness and development of compensatory strategies can greatly contribute to reading success, self-confidence, and autonomy when approaching different and challenging texts.

2.6.4 Social and Interactive Strategies

Reading used to be seen as an essentially individual and cognitive activity, but research in the last half-century, especially under the influence of Vygotsky's (1978) sociocultural approach to second language acquisition, has also brought a new focus on the social dimensions of reading. This view sees reading and understanding as a collaborative process of shared meaning-making and negotiated communication. From this vantage point, the term social and interactive strategies refers to ways that readers connect with other people to get help with understanding, clarifying meaning, and enriching their interpretation of a text (Barnett, 1988; Oxford, 2016; Teng, 2020). Social and interactive strategies recognize that reading is an inherently social activity and that

language learning is scaffolded by the interpersonal processes of language in use: negotiation of meaning, reasoning, and dialogue.

Social strategies for reading might include asking other people for help, discussing, comparing and contrasting your understanding, or engaging in interactive tasks (pair reading, reciprocal teaching) with another person. A learner might use a social strategy to share an interpretation, to check if their understanding is correct, to co-construct meaning from a difficult text, to get a new vocabulary item, or to explain a phrase they do not understand. Social strategies support externalization of the internal thought processes involved in understanding a text as learners explain their thinking and respond to the ideas of their peers (Pickren et al., 2024; te Brinke et al., 2021).

There is a large body of research which has used social and interactive reading strategies to show benefits in terms of comprehension, motivation and critical thinking (Ashford, 2024; Buehl, 2023). It is clear that tasks and classroom activities which involve students reading with others (reciprocal teaching, group annotation, peer questioning, collaborative summarizing etc.) have a positive impact. We also know that social and interactive reading scaffolds the internalization of comprehension strategies as it provides for collaborative dialogue in the learners' Zone of Proximal Development (ZPD) (Vygotsky & Cole, 1978). In other words, it is when students are operating on the edge of their independent capabilities that collaborative peer and teacher scaffolding is most needed and that its effects can be most powerful. In addition, the accountability which accompanies social interaction is also likely to promote higher levels of motivation and effort: in many ways, students are reading not just for their own understanding but also to contribute to a social task.

The rapid growth of online and blended language learning in the 21st century has also extended and developed the social nature of reading even further. Digital tools now allow students to create online discussion groups, virtual reading circles, and collaborative digital annotation on their own terms and at any time and place (Dancsa et al., 2023; Zhu et al., 2020). These new social and interactive reading strategies make it possible for people all over the world to read together (physically distant, but socially connected), share interpretations, and negotiate meaning at the speed of thought and over multimodal (text, voice, video, annotation) online channels. These innovative uses of social and interactive strategies for reading help to create "dialogic comprehension" (Nystrand, 2006), where understanding is not just negotiated in the mind of an individual reader, but dynamically co-constructed in social space. In addition, recent

research has suggested that networked, social, and collaborative reading enhances engagement and the critical perspective of online language learners by helping to connect their reading with real-life communication and authentic interaction (Habók & Magyar, 2018; Teng & Zhang, 2020).

Crucially, social and interactive strategies may also have positive effects in the affective domain by reducing anxiety, building self-efficacy and maintaining persistence and effort (Mensah et al., 2023). The fact that the negotiation of meaning is a social, shared experience means that struggling to understand a text is not something to be feared but an experience that other people have (Kitichaidateanan & Sukying, 2024; Oxford, 2016). Through social and interactive strategies, EFL learners co-construct meaning with others and may internalize their peers' effective comprehension strategies, becoming increasingly autonomous and self-directed in the process.

In conclusion, social and interactive reading strategies have brought a social and dialogic understanding of reading that complements and extends the more traditional focus on cognitive processes and skills. By nature of the processes involved in successful language learning, the social uses of reading for EFL learners, where both language and culture may be barriers to complete and independent understanding, have a special and powerful role to play in reading development. In many ways, social and interactive strategies offer a way to transform the activity of reading from an isolated, abstract, and sometimes intimidating cognitive experience into one which is collaborative, dialogic and socially empowering.

2.7 EFL Vocabulary Size

A thorough understanding of vocabulary serves as a crucial foundation for language acquisition enabling better performance in listening comprehension, reading proficiency, speaking fluency and writing accuracy. EFL learners depend on vocabulary size to measure their language competence and their success in academic performance and effective communication (Nation, 2001; Schmitt & Schmitt, 2020). Vocabulary knowledge comprises two distinct elements: vocabulary breadth representing the number of words a learner knows and vocabulary depth which measures the learner's understanding and ability to use those words.

Successful language learning depends on both vocabulary breadth and depth because research shows imbalances can cause comprehension and production problems.

Students who know many words yet lack depth of understanding recognize numerous words but face challenges when using them correctly. Learners who exhibit profound understanding of limited vocabulary words can express themselves precisely yet struggle to understand new vocabulary terms (Alsahafi, 2023; Dickinson et al., 2019). The section delves into both aspects by discussing their significance and exploring development factors and instructional methods to enhance them.

2.7.1 Vocabulary Breadth in EFL Learning

A student's vocabulary breadth is defined by how many basic-level words they comprehend. argue that when students develop a larger vocabulary they experience enhanced reading abilities and interactive skills which subsequently advances their overall language proficiency. Studies show vocabulary breadth serves as an essential element of EFL learning which affects both reading and listening abilities and enhances overall communicative competence.

Several previous studies show that good reading comprehension skills is strongly associated with vocabulary size. According to Webb and Nation (2017), EFL students require knowledge of 8,000 to 9,000 word families to properly understand written materials such as novels and academic texts. Understanding spoken communication requires familiarity with word families which range between 2,000 and 3,000 words. Luo et al. (2021) found a strong connection between vocabulary size and listening comprehension indicating that broader vocabulary leads to better spoken input processing abilities.

Previous work in the literature also attempted to explore the connection between extensive vocabulary knowledge and higher academic achievement levels. According to Laufer and Aviad–Levitzky (2017), EFL university students who displayed extensive vocabulary breadth surpassed others in reading comprehension tasks as well as essay writing and oral presentations students possessing limited vocabulary understanding. Therefore, research findings reveal vocabulary development as a basic requirement for academic achievement. The vocabulary breadth of students studying English as a Foreign Language also develops through an interaction of multiple elements. They are discussed below in the following subsections.

2.7.1.1 Language Exposure

The vocabulary knowledge of students who participate in extensive reading and listening to English materials through interactive sessions can improve significantly. Through incidental learning, learners develop their vocabulary from exposure instead of direct teaching methods. For instance, Peters and Webb (2018) examined the effects of graded readers and subtitled videos on vocabulary development. English extensive readers developed a wider vocabulary range and better understood word meanings by interpreting contextual clues during their reading experiences. The process of learning vocabulary words from English-language video subtitles incidentally demonstrates that continuous exposure to language-rich environments helps expand vocabulary knowledge.

Studies also demonstrate that being in environments with different languages enhances vocabulary size. Horst (2019) demonstrated that students acquired vocabulary more efficiently through authentic materials like newspapers and blogs than through standard classroom textbooks. According to Rogers and Cheung (2021), learners who used English-language podcasts and social media while talking with native speakers face-to-face experienced significant vocabulary growth. Studies reveal that students who learn vocabulary through various instructional formats demonstrate superior word retention and retrieval abilities.

2.7.1.2 Explicit Instruction

EFL learners also depend on direct instruction in vocabulary learning. Sonbul and Schmitt (2010) show that explicit teaching methods yield the best results for students when learning vocabulary that seldom appears in combination with academic and specialized terminology. Their study investigated different instructional techniques and found the following:

a) When learners preview vocabulary before reading or listening exercises they become better at recognizing and processing new words.
b) The teaching of word families alongside morphological patterns enables students to discern meanings of new words through an understanding of roots and affixes.

c) Semantic mapping through lexical sets groups words by related meanings which results in more structured and deeper retention.

Explicit teaching methods deliver powerful benefits for maintaining vocabulary knowledge over extended periods. Webb and Nation (2017) demonstrated that students engaged in structured vocabulary instruction (such as word definitions and practice activities) achieved better results than students who depended only on incidental learning. Schmitt and Schmitt (2020) maintain that combining explicit and incidental learning methods delivers optimal results because it enables students to learn both frequently encountered words through exposure and less common words through formal instruction.

2.7.1.3 Learning Strategies

Effective vocabulary acquisition extends beyond just exposure and teaching because students must actively work with new words for better learning. Several studies explored the effect of learning strategies on vocabulary learning and they reported various techniques that significantly expand students' vocabulary breadth.

Spaced Repetition Systems (SRS): Digital flashcards combined with spaced repetition methods led to greater vocabulary retention in students compared to traditional memorization techniques (Bromer, 2022; Xodabande et al., 2024). The primary strength of Spaced Repetition Systems lies in how they use ideal intervals for reviews to both stop memory decay and improve memory retention.

Keyword Mnemonics: The use of visual imagery and personal experiences to connect with new words improved learners' vocabulary retention. Students who linked "gregarious" to a fun social gathering retained its meaning more effectively (Hill, 2022; Susana, 2017).

Contextualized Learning: Students who used new words in sentences and discussions displayed stronger memory retention than those who simply memorized words without contextual application (Tadayonifar, 2024). The work by Gu and Johnson (1996) verifies that vocabulary development occurs when words are used within meaningful contexts. Reynolds and Teng (2021) found that vocabulary growth in learners who used self-regulated learning techniques like goal setting and metacognitive monitoring exceeded that of learners who followed passive learning

approaches. Therefore, studies demonstrate autonomous learning functions as a crucial component in acquiring vocabulary skills.

2.7.1.4 Motivation

Students' motivation can influence their vocabulary development. Dörnyei (2020) shows that vocabulary learning depends on internal drives such as personal interest and enjoyment together with external rewards like academic goals or professional opportunities. When English learners initiate conversations with native speakers or those proficient in English they actively seek out reading materials and English content due to their intrinsic motivation. According to research conducted by Tabata-Sandom (2023), students who read English books for pleasure outside school contexts achieved greater vocabulary growth than students who read English books just for academic reasons.Students who study vocabulary systematically through external motivation aim to achieve success on standardized tests like TOEFL or IELTS. The method produces rapid vocabulary gains initially but demands sustained language interaction to maintain vocabulary over time (Schmitt & Schmitt, 2020). Research shows that self-efficacy or belief in one's capacity to achieve success connects with effective vocabulary learning (Bozgun & Can, 2023; Muche et al., 2024; Oranpattanachai, 2023). Students who show high self-efficacy tend to adopt advanced learning strategies including self-quizzing and vocabulary journal maintenance as well as extensive reading. In contrast, students who have low beliefs about their learning abilities frequently used rote memorization methods that do not support effective vocabulary learning.

2.7.2 Vocabulary Depth in EFL Learning

The concept of vocabulary depth describes how well a learner understands a word through its meanings, collocations, grammatical properties and connotations. The study of vocabulary breadth examines how many words learners know while vocabulary depth investigates learners' comprehensive understanding of each word (Alsahafi, 2023; Dagnaw, 2023; Shen, 2008). Multiple essential elements of vocabulary depth have been determined through various studies.

1. Semantic Understanding: Semantic understanding requires recognizing multiple meanings of a word and understanding its meaning variations in different contexts. The term bank describes both a financial institution as well as the land next to a river. Nation and Beglar (2020) state that learners exhibit improved text processing abilities through enhanced semantic knowledge while Dagnaw (2023) shows that such knowledge leads to better reading comprehension and language proficiency.
2. Collocational Knowledge: Mastery of standard word pairings enables people to express themselves naturally and fluently during communication. Second language learners who enhance their knowledge of common word combinations achieve better progress in writing speed and vocabulary variety (Laufer & Waldman, 2011). According to Schmitt and Schmitt (2020), language learners benefit from understanding common word pairings as it improves their comprehension of language patterns used in real-world situations.
3. Morphological Awareness: The study of prefixes, suffixes and word roots enables students to determine word meanings which enhances their vocabulary range. While exploring how the adjective “happy” becomes the adjective “unhappy”, students gain knowledge about text structure and word formation skills. Crossley et al. (2011) found that learners of a second language who develop morphological awareness demonstrate improved abilities to retain vocabulary. The research conducted by Kieffer and Lesaux (2012) demonstrates that morphological processing leads to vocabulary expansion in students by boosting their understanding of complex and numerous words.
4. Syntactic Usage: When learners understand how words function within sentences they create grammatically correct sentences that lead to effective communication. Students must learn to distinguish between the verb “suggest” and the noun “suggestion”. Students improve their vocabulary depth by acquiring syntactic knowledge which enables them to create grammatically correct and coherent sentences (Firda & Azkiyah, 2021; Zhang & Lin, 2021). Students who develop syntactic awareness improve their spoken language comprehension by processing sentence structures more rapidly (Webb, 2019).
5. Pragmatic and Connotative Meanings: The way words convey social and emotional meanings heavily influences human communication processes. The words “thin” and “slim” have similar meanings yet “slim” carries a more

positive connotation. According to Crossley et al. (2011), learners achieve advanced proficiency through pragmatic competence which enables them to interpret meanings beyond basic definitions. According to Schmitt and Carter (2008), learners who grasp both connotations and formulaic expressions become proficient at handling authentic communication situations.

Extensive vocabulary depth remains essential for understanding language meaning and producing language output according to research findings. Qian's study (1999) found extensive vocabulary breadth predicts reading comprehension yet vocabulary depth enhances students' abilities to infer meanings and understand word connections during complex text analysis. Similarly, according to Schmitt and Schmitt (2020) ,students who possessed extensive vocabulary depth demonstrated both coherent and sophisticated writing due to their precise word choices and appropriate connotations.

The study conducted by Reynolds and Teng (2021) explored how vocabulary depth relates to speaking fluency among students learning English as a foreign language. The study revealed that students who possessed stronger collocational knowledge together with syntactic awareness demonstrated improved fluency and accuracy in their spoken language. Given this, the depth of vocabulary proves crucial beyond reading and writing and also influences spoken language proficiency. Targeted instruction combined with practice is essential to deepen vocabulary knowledge. Previous studies have recommended the following strategies:

1. Explicit Teaching of Collocations: Students learn vocabulary most effectively when educators teach them common word combinations and collocations together. According to Nation (2022), understanding word pairings in language greatly improves both fluent speech production and accuracy. Educational methods that teach students to use "make a decision" instead of "do a decision" enable them to naturally absorb standard language patterns. Collocations can be explicitly taught using word matching activities, fill-in-the-blank exercises, and authentic reading and listening tasks that support these word groupings.
2. Word Formation Exercises: Understanding word morphology allows learners to deepen their vocabulary through the ability to recognize and manipulate prefixes, suffixes, and roots. Schmitt (2020) demonstrates that educators who

show students how to dissect words into their fundamental parts such as morphemes can enhance vocabulary breadth and comprehension through examples like the word “unhappiness” which originates from “happy” with the prefix “un-” and suffix “-ness”. Word-building games together with vocabulary tasks that focus on affixes and morphological analysis of new words within context improve this ability.

3. Contextualized Learning: Words become part of learners’ vocabulary most effectively when they appear in meaningful contexts that are relevant to their use. According to Sonbul and Schmitt (2010), vocabulary should be presented through real communication activities including reading and storytelling instead of relying on rote memorization methods. Contextualized learning helps learners retain and apply words through the understanding of pragmatic, connotative and syntactic meanings. Educators facilitate vocabulary acquisition by implementing extensive reading programs along with role-playing activities and interactive dialogues to enable learners to encounter and employ new words across diverse linguistic scenarios.
4. Use of Corpora and Data-Driven Learning: Technological progress has opened up large linguistic databases (corpora) to learners which present real examples of how words are used. Boulton (2021) propose that learners should engage in data-driven learning by examining actual language use through corpus tools to study word functionality across different contexts. Students can investigate the common usage of words such as “argument” within phrases like “compelling argument” and “heated argument,” which leads to independent exploration and improved lexical understanding that benefits advanced learners who want to enhance their vocabulary skills.

The two concepts of vocabulary breadth and depth typically receive separate study attention but share an important connection. Full language proficiency requires learners to have both extensive vocabulary knowledge and deep understanding of word usage. Research by Alsahafi (2023) indicates that concentrating only on vocabulary breadth while ignoring depth results in passive identification instead of active word application. Specializing in deep knowledge of only a limited vocabulary can restrict total language comprehension.

Overall, the depth of vocabulary serves as an essential component of second language proficiency because it determines learners' capacity to apply words correctly and flexibly across various contexts. A broad vocabulary base establishes basic communication skills but depth defines how well words are understood and used. EFL instruction needs to combine explicit teaching strategies with contextualized learning and meaningful language usage to enhance learners' deep word knowledge. Upcoming research needs to further investigate teaching methods and the relationship between vocabulary breadth and depth for comprehensive vocabulary development in EFL students.

2.8 EFL Reader Self-Efficacy

Self-efficacy, a term coined by the social cognitive psychologist Albert Bandura (1982, 1997), is one's perception of their ability to execute specific behaviours to accomplish desired outcomes. Self-efficacy is a significant construct for reading comprehension, not just because it affects how individuals approach reading tasks, but also because it relates to their reading achievement (Alharbi, 2021; Apriliyani & Usuludin, 2023; Delgado-Vásquez et al., 2022; Jiang, 2023; Oranpattanachai, 2023; Shehzad et al., 2021). It is one of the most investigated concepts in educational psychology; researchers seek to better understand the connections between self-beliefs, cognitive processes, and academic performance (Pajares, 1996; Zarei, 2018).

In principle, reading comprehension self-efficacy involves a person's belief in their ability to derive understanding and meaning from written text (Bandura, 1977) – a belief that is not solely contingent on their actual reading skill or proficiency, but on their perceived level of control over skill and proficiency. Bandura (1997) maintained that, when it comes to learning to self-regulate, self-efficacy is 'an intrinsic motivator and a tool for invigorating action', helping a person make decisions about which paths to follow, how hard to work at them, and how long to persevere when presented with challenges.

Self-efficacy and reading comprehension reciprocally influence each other (Apriliyani & Usuludin, 2023; Cho et al., 2021; Shehzad et al., 2019). That is, when one feels high efficacy, they're more likely to choose to engage in reading activities voluntarily and to persevere in difficult reading activities. On the other hand, when one feels low efficacy, they're more likely to choose to engage in reading tasks with

reluctance, anxiety, and disengagement. The reciprocal or bidirectional relationship between beliefs and behaviour is especially noteworthy in the case of reading comprehension. Comprehension is a complex cognitive activity, especially when higher-order thinking like inference, analysis or synthesis is involved (Jiang, 2023; Oranpattanachai, 2023).

Second, self-efficacy also impacts metacognitive strategy use (Ahmadian & Pasand, 2017; Bozgun & Can, 2023; Naseri & Zaferanieh, 2012; Okyar, 2021). When readers feel effective in their reading behaviours, they are more likely to use metacognitive strategy use, such as monitoring their understanding, clarifying their areas of uncertainty, and shifting their strategy when they start to struggle with the text (Schunk, 2003). These strategic behaviours support understanding of the text and navigating complex reading tasks.

Self-efficacy is related to reading comprehension, especially when we read something challenging or unfamiliar (Bandura, 1997; Pajares, 1996). Readers who have confidence in their abilities to comprehend are likelier to believe that they can master the text when they encounter it, by affirming that it may be challenging but it is doable. They may even experience an emotionally positive valence towards the moment when the text becomes challenging. This sense of optimism can also activate perseverance in the face of comprehension difficulties.

In this study, the 23-item scale developed by Henk and Melnick (1995, p. 472) was used to measure students' perceptions of their self-efficacy in reading. The purpose of this scale was to evaluate students' self-efficacy comprehensively (four subscales were designed to categorise students' self-efficacy in a nuanced way). The four scales were: social feedback, progress monitoring; physiological state, and observational comparison.

2.8.1 Social Feedback

The foundation of learners' self-efficacy beliefs rests upon social interactions through which they receive feedback from teachers, peers, and family members. Bandura (1997) identified self-efficacy as a concept that develops primarily through external experiences where social feedback acts as a major determinant. Students develop stronger self-belief regarding their reading capabilities when they obtain positive reinforcement through praise for effort and constructive feedback. Negative

feedback combined with criticism or lack of support results in reduced motivation and avoidance of reading activities (Gunawan & Wulandari, 2024; Rahımı & Abedını, 2009).

Reading self-efficacy among students is greatly affected by teacher feedback. According to Mills et al. (2007), students who receive regular detailed positive feedback about their reading advancement develop a stronger belief in their success potential. Teacher feedback that combines recognition of student achievements with improvement strategies helps increase students' confidence in their reading skills. Studies demonstrate that students develop growth mindsets when teachers deliver clear and constructive feedback, because this method helps them see reading challenges as opportunities to grow, instead of evidence of failure (Kim & Lorsbach, 2005). Specific feedback directed at students' individual reading levels and difficulties proves to be more successful than broad praise or general criticism.

Peer interactions also play an important role in developing students' reading self-efficacy alongside teacher feedback. Students learn and provide support to each other through collaborative reading activities which include peer tutoring and group discussions as well as literature circles. Teng's study (2020) indicates EFL learners who participated in cooperative reading tasks saw more significant self-efficacy development because of their peers' validation and support. The observation of successful reading problem-solving by peers increases learners' confidence in their ability to achieve similar results. The impact becomes most pronounced within structured collaborative learning environments because students feel at ease with idea sharing and receiving feedback. The social environment within a classroom determines how effective peer feedback will be. Students in competitive or unsupportive settings who experience negative comparisons face reduced self-efficacy and show less willingness to engage in reading activities.

Positive feedback from peers strengthens self-efficacy while negative responses or severe criticism reduce self-efficacy. Students who experience consistent negative assessments about their reading abilities tend to develop anxiety which results in avoidance strategies and decreased motivation (Bürgermeister et al., 2021). A learning atmosphere that provides support along with constructive feedback proves essential to develop reading self-efficacy among EFL students.

2.8.2 Progress Monitoring

Monitoring progress plays a key role in building reading self-efficacy. Tracking their progress over time enables learners to build confidence in their reading skills which helps them persist in difficult reading activities (Chung et al., 2021). found that learners experience increased self-efficacy when they see direct connections between their efforts and measurable progress. Student progress tracking of reading speed, comprehension levels, and vocabulary expansion helps them build stronger confidence in their reading success.

Students can track their reading progress through self-assessment which helps them evaluate their development. Students who practice self-assessment methods like reading journals along with goal-setting and checklist utilization develop a clearer understanding of their strengths and improvement needs (Chung et al., 2021). Students develop ownership of their reading progress through self-assessment which motivates them to actively participate in their reading improvement. Learners who establish precise and attainable reading goals show greater motivation because they maintain higher levels of engagement and persistence in their reading activities (Alharbi, 2021; Apriliyani & Usuludin, 2023; Bandura, 1982).

Beyond self-assessment activities, learners receive concrete proof of their advancements through formative assessments. Continuous assessments through quizzes and reading logs combined with teacher observations demonstrate incremental progress to students which strengthens their reading self-efficacy (Sonbul & Schmitt, 2010; Zimmerman & Schunk, 2013). Formative assessments achieve their best results by delivering prompt constructive feedback which enables students to modify their reading approaches while strengthening their confidence in their reading abilities.

Effective progress monitoring requires learners to be able to identify and understand their developmental progress. When student progress remains hidden from self-reflection or teacher feedback they may not realize their true potential and become frustrated (Ahmad, 2024). Educators need to establish systematic progress-tracking systems which help students see their development and sustain motivation.

2.8.3 Physiological State

The emotional and physical states of readers play a crucial role in shaping their self-confidence about reading abilities. Reading performance deteriorates under stress and anxiety while positive mental states improve both understanding and reader engagement. Bandura's (1997) research showed physiological state as one of the four essential sources for self-efficacy beliefs because students' emotional experiences affect their belief in their own abilities.

Reading anxiety stands as a principal barrier to students who attempt to build their reading self-efficacy. Rahimi and Abedini's (2009) work demonstrates that students learning English as a foreign language with high anxiety levels find reading difficult which leads them to shun reading activities. Reading anxiety originates from the fear of making mistakes when reading combined with the struggle of interpreting unfamiliar words and negative past experiences with reading tasks. Students who experience high anxiety levels struggle to stay focused during information processing while keeping their comprehension strategies effective (Rahimi & Zhang, 2019).

Educators can diminish reading anxiety by implementing relaxation techniques together with mindfulness exercises and creating stress-free reading experiences (Haberlin, 2025). When teachers combine graded readers with vocabulary support before reading and let students choose their own reading materials, students experience reduced anxiety and enhanced confidence. A learning environment that frames mistakes as opportunities for growth rather than failures plays a crucial role in diminishing reading anxiety.

The mental effort needed to process reading tasks defines cognitive load which influences self-efficacy (Bishara, 2022). Learning gets complicated when texts display unfamiliar vocabulary and complex sentence structures along with abstract concepts which may lead to learner's overwhelm and self-doubt. According to Li et al. (2024), educational support tools like glossed readings and guided comprehension exercises reduce mental workload and build confidence in reading skills.

Overall, when learners adopt a growth mindset, they learn to view reading difficulties as challenges instead of threats. Educators who highlight the fact that reading skills develop gradually and recognize struggle as part of learning can motivate students to continue working through challenging moments.

2.8.4 Observational Comparison

The method of self-evaluation through comparison with others significantly impacts the development of self-efficacy. Students frequently evaluate their reading capabilities by observing how their peers, educators, or exemplar role models perform. According to Pajares and Schunk (2001), students who witness effective reading behaviors from others develop greater confidence in their own reading abilities.

The practice of peer modeling has a significant impact on students' development of reading self-efficacy. Students who observe their classmates finishing reading tasks successfully tend to adopt similar methods for their learning (Cui et al., 2021). EFL students who observed proficient readers through peer modeling showed significant increases in self-efficacy and developed better reading habits (Teng, 2020). Shared reading activities and group discussions about reading strategies represent just a few of the methods through which peer modeling takes place.

Learning through observation serves as an important mechanism for developing self-efficacy. Teachers demonstrate effective reading techniques like predicting and questioning to show learners how these methods work in practice (Zimmerman & Schunk, 2013). The observation of teachers demonstrating successful reading strategies increases students' confidence in their ability to use these techniques.

When students make negative comparisons, it leads to harmful impacts on their belief in their own capabilities. Students who continuously measure their progress against advanced peers risk developing a fixed mindset about their reading skills because they become discouraged by the comparisons (Redifer et al., 2021). Educators need to prioritize personal progress tracking instead of encouraging competitive comparison to help students focus on their individual growth rather than comparing themselves to peers.

In brief, the self-efficacy of readers learning English as a foreign language depends on several interconnected elements such as social feedback and progress monitoring combined with physiological state and observational comparison. The confidence learners feel about their reading abilities develops through teacher and peer reinforcement together with progress awareness and emotional control while observing successful role models. By understanding these components educators can create specific interventions that build self-efficacy resulting in EFL students who are more motivated and achieve better reading success.

2.9 Challenges in Reading Comprehension Among EFL Learners

Reading comprehension stands as a fundamental skill for EFL students since it supports academic success and facilitates efficient communication. EFL learners face many difficulties which obstruct their ability to understand reading materials. Educational, socio-cultural, technological, and psychological factors are commong challenges faced by EFL learners in reading comprehension. Educators, developers, and policymakers need a complete understanding of these obstacles to develop successful interventions and teaching methods. The the following sections analyze major reading comprehension difficulties faced by EFL learners.

2.9.1 Educational and Instructional Challenges

2.9.1.1 Inadequate Reading Instruction Methods

EFL students face significant reading comprehension challenges due to ineffective teaching approaches. EFL curricula typically focus on memorization and repetitive learning methods instead of teaching interactive and communicative reading techniques (Grabe & Stoller, 2019). Conventional language instruction primarily emphasizes grammar translation and vocabulary drills performed in isolation which fails to provide students with necessary reading comprehension abilities for authentic texts. The absence of direct teaching on reading strategies like inferencing and summarization prevents learners from decoding texts independently (Nation, 2013).

Research findings reveal that meaning-focused techniques including content-based instruction together with task-based learning yield substantial improvements in reading comprehension abilities (Brown, 2021). Interactive teaching approaches like guided reading sessions and reciprocal teaching along with peer discussions facilitate active text engagement while enhancing deep comprehension (Snow, 2020). Strategic text engagement methods that teach skimming, scanning, predicting and summarizing through process-oriented instruction result in significant enhancements to reading proficiency (Nation, 2013).

Differentiated instruction that customizes reading tasks to match student skill levels and interests demonstrates improved learning motivation and engagement (Tomlinson, 2017). Using genuine texts across multiple genres and media platforms enables learners to build critical reading abilities while gaining exposure to real-life

language use. Educators need to adopt multimodal teaching strategies by mixing textual content with visuals and audio recordings alongside interactive reading apps to address different student learning styles (Richards & Rodgers, 2022).

2.9.1.2 Lack of Exposure to Extensive Reading

The reading materials available to many EFL students consist mainly of textbooks which fail to provide exposure to a broad vocabulary and real-world language usage. According to Krashen (2004), reading for enjoyment and understanding rather than language analysis through extensive reading leads to better reading fluency and comprehension skills. Reading instruction in numerous EFL classrooms remains under teacher control while students receive minimal motivation to read independently beyond their course obligations.

Day & Bamford (2019) demonstrate that learners who read a range of materials including novels, newspapers and online articles show improved reading skills and motivation. Through extensive reading students experience vocabulary in multiple contexts which helps them learn new words and enhances their reading comprehension abilities (Lao & Krashen, 2021). Books written for different levels of language proficiency known as graded readers offer learners a well-organized but captivating approach to develop reading skills and self-assurance (Nation & Yamamoto, 2020).

The absence of institutional backing and access to comprehensive libraries with varied reading materials stands as a key obstacle for extensive reading promotion (Renandya & Jacobs, 2016). Language programs and schools need to establish extensive reading initiatives that allow students to select their reading materials while monitoring their progress through reading logs or book discussions (Bamford & Day, 2018). Educators can establish a reading-friendly classroom by adding book clubs, literature circles, and storytelling sessions to their lesson plans. Interactive and adaptive digital reading platforms deliver engaging reading experiences while offering learners immediate comprehension feedback (Godwin-Jones, 2021).

2.9.1.3 Teacher Competency and Training

Reading instruction effectiveness depends primarily on teacher proficiency and pedagogical methods. Educational professionals in EFL settings frequently lack proper

instructional training for reading strategies and comprehension skill development. Farrell & Jacobs (2010) discovered that numerous EFL teachers do not understand evidence-based reading instruction techniques which causes ineffective teaching methods. The English proficiency level of some educators prevents them from demonstrating fluent reading and comprehension strategies effectively (Richards, 2021).

When teachers receive training through professional development programs in scaffolding reading activities and metacognitive strategies along with multimodal resource utilization they can improve student reading comprehension skills (Philip & Tan, 2006; Pohl, 2020; Yapp et al., 2021). Educators who participate in continuous workshops and peer mentoring while working with reading specialists remain updated on current research-based reading instruction techniques (Larsen-Freeman & Anderson, 2013). The ability of teachers to understand formative assessment methods enables them to detect students' reading challenges and deliver individualized support through interventions like differentiated instruction or single-student focus (Black & Wiliam, 2018).

Teacher training requires emphasis on incorporating digital tools in reading instruction while making use of adaptive learning systems and developing individualized reading exercises (Chapelle & Sauro, 2020). Through digital literacy training teachers will gain the skills to use online reading resources as well as interactive e-books and gamified reading apps to engage students more effectively (Lai & Morrison, 2021). Educators who analyze their teaching methods and implement changes based on student feedback create continuous improvements in reading instruction (Philip, 2018; Philip & Tan, 2006). Through improved teacher training and professional development programs educational institutions can achieve successful reading instruction for EFL students.

2.9.2 Socio-Cultural Challenges

2.9.2.1 Influence of First Language Literacy

The literacy skills learners develop in their first language (L1) have a significant impact on their English reading comprehension capabilities. According to Cummins (2016), students who build strong literacy skills in their native language more

effectively apply these skills to English reading proficiency. Many EFL teaching settings involve students from educational systems that do not emphasize reading which leads to their struggles in developing successful reading strategies in English.

According to Koda (2020), students with a native language that has a substantially different writing system encounter additional decoding challenges when reading English texts. The contrast between different writing systems and phonetic structures together with reading direction presents obstacles in recognizing letters and segmenting words. Educators must teach English reading systems through transparent instruction while developing students' phonemic awareness to address these learning gaps.

2.9.2.2 Cultural Background and Content Familiarity

Understanding written content requires readers to have both knowledge of language structure and insight into cultural references found within the text. Students learning English as a foreign language struggle with reading materials when they encounter unfamiliar cultural references and historical allusions or idioms (Carrell, 2021). Non-Western students face comprehension difficulties when texts include references to Western traditions, holidays, and literature without sufficient context being added.

Educators can reduce this issue by selecting texts that reflect cultural relevance and pairing them with pre-reading discussions as well as visual aids and explanatory notes to engage students' prior knowledge. Research results from Kintsch (2020) show that activating background knowledge before reading enhances comprehension outcomes. Through the use of multicultural literature in EFL classes students develop deeper engagement while learning to appreciate various cultural perspectives.

2.9.2.3 Socioeconomic Barriers

Socioeconomic factors influence how EFL learners develop their reading skills through the quality of educational resources they access. Limited access to books and digital learning tools combined with restricted exposure to language-rich environments impedes reading development among low-income students (OECD, 2022). Students

with limited finances face restrictions when trying to engage in extra language learning experiences such as obtaining private tutoring or traveling abroad to study.

Education authorities and government institutions must develop strategies to ensure all students have access to reading materials through free digital libraries and subsidized reading programs as well as community literacy campaigns. Open-access reading materials that are low in cost enable disadvantaged learners to access educational opportunities and promote inclusive literacy development.

2.9.3 Technological Challenges

2.9.3.1 Digital Literacy and E-Reading Difficulties

The increasing implementation of digital tools in educational settings requires digital literacy skills for students to understand reading materials. Eshet-Alkalai (2021) explains that numerous EFL students experience difficulty with digital reading due to their limited technological skills and challenges in navigating online resources while also dealing with excessive digital content. Reading digitally involves learners interacting with hyperlinks and multimedia content while interpreting multiple formats which requires more cognitive processing power than reading traditional printed materials (Coiro & Dobler, 2018).

Digital reading becomes challenging as users must discern useful information from numerous online sources. English as a Foreign Language students struggle to distinguish authentic academic resources from false or unrelated content which negatively impacts their reading comprehension skills (Leu et al., 2022). Zhang and Duke (2021) found that digital texts' non-linear design creates distractions which impair reading focus and impede deep understanding. According to Wolf (2018), students cannot learn important concepts when they browse lengthy digital articles or switch tabs multiple times.

Students experience a significant challenge because they do not understand digital reading techniques. Afflerbach and Cho (2020) identified skimming, scanning and keyword searches as essential navigation techniques used by successful digital readers. The study conducted by Park & Warschauer (2021) shows that passive reading methods employed by EFL students do not support their understanding of online material. The absence of physical markers like page numbers in digital documents

causes readers comprehension difficulties because learners tend to lose their place in digital texts unlike printed materials (Mangen & Kuiken, 2019).

To manage these challenges educators must incorporate digital literacy training into their language teaching curricula. Learners demonstrate marked progress in digital reading abilities through the evaluation of online sources and implementation of annotation tools in combination with active reading methods (Kress, 2021). Structured digital reading exercises such as article summarization and digital discussion participation enhance learners' digital text processing skills through guided practice (Coiro, 2022). Liu et al. According to Liu et al. (2020), vocabulary development and comprehension improve when students use e-readers that include built-in dictionaries and note-taking features.

Digital reading performance depends on eliminating distractions which allows readers to maintain better focus and comprehension. Wolf (2020) notes that helping learners adopt reader-friendly interface modes such as ad-free reading platforms and offline document readers reduces their cognitive overload. The Pomodoro technique, which consists of reading in focused intervals followed by short breaks helps to boost digital reading efficiency according to Gura (2021). Educators who teach essential digital literacy skills and structured reading strategies enable learners to navigate digital texts with better effectiveness which leads to improved reading comprehension.

2.9.3.2 Over-Reliance on Translation Tools

The excessive dependence on translation tools represents a major technological obstacle for EFL reading comprehension. Digital translation services like Google Translate and DeepL offer immediate word-for-word translations yet their excessive use prevents learners from acquiring new languages and obstructs the progress of reading comprehension abilities (Luo & Sun, 2021). The majority of EFL learners depend on translation applications to interpret nearly every unknown word instead of applying contextual hints and inference abilities to understand meaning (Nation, 2022). Engaging with texts through translation tools results in learners developing only a surface understanding which lacks deep comprehension (Karakas & Kartal, 2020).

Translation tools fail to replicate the nuanced meanings and cultural references that exist in original texts (House, 2018). Automated translations result in literal interpretations that frequently fail to convey the intended message which causes

misunderstandings and misinterpretations (Munday, 2021). Direct translations prevent learners from building critical reading skills like synonym recognition, paraphrasing abilities, and inference-making which are vital for achieving reading fluency (Schmitt, 2020).

Translation outputs may contain grammatical inaccuracies that present significant concerns. AI-driven translation software has made great strides but continues to produce frequent issues with sentence structure, word choice and syntax (Garcia & Pena, 2022). The over-reliance of EFL learners on translation tools can lead to the absorption of incorrect grammar patterns that adversely affect their language proficiency (Bowker, 2021). Students who utilize digital translation tools excessively may experience decreased motivation for vocabulary expansion and independent reading strategy development (Laufer & Hulstijn, 2020).

To reduce student dependence on translation tools educators must promote the use of monolingual dictionaries along with contextual analysis methods. Students who learn to determine word meanings from context and recognize word roots and collocations will improve their reading comprehension abilities without needing continuous translation assistance (Nation, 2022). Learners can achieve better understanding of language structures and word connections by engaging in vocabulary-building exercises like word-mapping together with lexical chunking (Schmitt, 2021).

Gradual reduction strategies provide an effective method for translation tool usage. Educators should not ban translation tools entirely but instead help learners use them selectively for words that are too complex to understand through context alone (Karakas & Kartal, 2020). Learners who use bilingual glossaries to document new words alongside their meanings and example sentences can decrease translation reliance while enhancing vocabulary retention according to Laufer (2022).

The combination of interactive reading activities including peer discussions and comprehension quizzes with summarization assignments enhances student engagement with texts and reduces their need to use translation support (Gass & Mackey, 2021). Teachers enable EFL students to enhance their reading abilities and reduce translation tool dependence through the promotion of various reading techniques and self-directed vocabulary learning.

2.9.4 Psychological Challenges

2.9.4.1 Reading Anxiety and Lack of Confidence

Reading anxiety presents a psychological barrier for many EFL students which triggers avoidance behaviors and affects their comprehension skills. Students learning to read foreign languages must handle unknown words and complex sentences while managing their fear of making mistakes (Saito et al., 2021). Students exhibit elevated anxiety when they have to read aloud during class or when they need to understand academic texts with time limitations (Zhao et al., 2022). Reading difficulties produce a negative feedback cycle as learners' confidence drops which increases their avoidance of texts and further worsens their comprehension abilities (Horwitz, 2017).

Various elements lead to reading anxiety in learners of English as a Foreign Language. The most significant obstacle for readers is limited vocabulary knowledge because repeated exposure to unknown words makes texts appear daunting (Nation, 2022). Sentence processing becomes difficult because of grammatical complexity and unfamiliar syntactic structures which lead to frustration and discouragement (Grabe, 2018). Reading self-efficacy affects students because those who doubt their comprehension abilities tend to lose motivation for reading tasks (Bandura, 2020).

Reading anxiety can be intensified by classroom environments. Students in traditional teacher-centered classrooms experience heightened anxiety because of the pressure to demonstrate their performance to their classmates (Young, 2019). According to MacIntyre & Gregersen (2021), strict testing formats like timed comprehension tests and high-stakes exams generate stress that hinders students' reading abilities.

Educators can use multiple effective strategies to both reduce reading anxiety and enhance students' confidence. A foundational step to support learners' reading development is to create an environment where they feel safe to read without pressure. By promoting silent reading along with peer reading partnerships and small-group dialogues teachers can help students feel less judged and establish a comfortable classroom environment (Krashen, 2021). Day and Bamford (2019) demonstrate that students who participate in extensive reading programs which allow them to choose their own texts and read at their own pace experience substantial improvements in reading confidence and fluency.

Reading tasks can be scaffolded by dividing them into smaller, manageable steps. Preparing learners for text engagement through pre-reading activities like discussing background information and teaching essential vocabulary helps build their readiness as suggested by Kintsch (2020). According to Duffy (2018), text processing is enhanced when learners apply comprehension strategies like predicting, questioning, and summarizing during reading sessions. Reflective exercises and post-reading discussions enhance understanding and build learner confidence at the same time. Students experience positive results when educators use positive reinforcement together with a step-by-step approach to difficult texts. Deci and Ryan (2022) found that recognizing students when they complete tasks such as passage summarization or main idea identification builds their confidence in their reading abilities. Educators need to start teaching with simple reading materials which will then graduate into more advanced texts as students enhance their reading capabilities.

Students become more engaged with reading materials through multimedia and interactive resources that also help to reduce their anxiety levels. Through audiobooks and interactive e-books along with language learning apps learners gain access to different reading methods which improve both their ability to access texts and their enjoyment of reading (Park & Warschauer, 2021). Renandya and Jacobs (2020) found that audiobooks provide pronunciation practice that enhances learners' understanding of text rhythm and thus strengthens their reading confidence.

Reading anxiety can be effectively addressed by combining instructional methods with positive reinforcement inside a supportive classroom setting. Teachers who build a protective learning space for students to exercise reading techniques and read texts at their preferred pace help lower anxiety levels while creating enjoyable reading experiences for EFL students. Through steady support and motivation learners can gradually build reading confidence which enables them to improve reading abilities and conquer anxiety-related obstacles.

2.9.4.2 Motivation and Engagement Issues

Reading comprehension suffers significantly when motivation levels are low. EFL students find reading English challenging and boring which causes them to disengage from reading activities (Guthrie & Wigfield, 2021). Research demonstrates that internal motivation is essential to achieving reading success (Dörnyei, 2022). A

lack of motivation prevents learners from participating in independent reading activities which hold critical importance for both language acquisition and comprehension development. Lack of confidence together with insufficient access to interesting reading materials and prior negative reading experiences in English act as factors which lower motivation (Ryan & Deci, 2020).

Educators can boost learners' motivation by selecting reading materials that reflect individual interests and educational objectives. Gambrell (2022) found that students who read materials connected to their personal interests or professional goals show higher engagement levels and improved understanding. Teachers can evaluate student reading preferences by conducting surveys or discussions then offer multiple reading materials such as fiction books, non-fiction works, blog posts and multimedia content.

Gamified reading activities serve as a key method for boosting student motivation. Reading becomes more engaging and rewarding when it includes elements like badges, leaderboards and reading challenges (Huang & Soman, 2021). The ability of digital reading platforms and educational apps to track progress and deliver immediate feedback helps learners maintain their commitment to their reading objectives. Peer discussions combined with book clubs and collaborative reading tasks establish community bonds and accountability leading to enhanced learner engagement (Deci & Ryan, 2022). Interactive storytelling proves to be an effective method for enhancing student motivation. Storytelling activities including role-playing and dramatized readings foster stronger connections between learners and the text according to Moran & Gillon (2021). Students find reading more pleasurable as their understanding improves through deeper engagement with the content.

When educators acknowledge their students' reading advancements through positive reinforcement it results in a substantial increase in motivation. Recognizing student accomplishments with verbal praise, certificates or progress-tracking charts leads to feelings of achievement while motivating them to further improve their reading abilities (Bandura, 2020). By establishing reachable reading targets like finishing specific pages weekly or summarizing main text concepts learners obtain clear direction and purpose during their reading process.

Linking reading tasks to real-world situations helps to increase student motivation. Students develop a greater appreciation for reading comprehension when they witness its application in daily life tasks such as job documentation analysis and

media consumption (Guthrie, Klauda, & Ho, 2021). Enabling students to engage with practical reading activities like researching travel destinations or following instructional guides helps them find reading more useful in their everyday life.

EFL reading comprehension improvement demands multiple strategies to resolve motivation and engagement challenges. Educators can establish a dynamic and nurturing reading environment by combining interest-driven content with gamification strategies, interactive storytelling methods, positive reinforcement techniques, and real-world applications. The techniques employed help to increase reading motivation while establishing enduring reading practices which aid both language proficiency development and academic achievement.

2.10 Relationship Between Reading Strategies and Reading Comprehension

The relationship between reading strategies and reading comprehension is a cornerstone in the understanding of the cognitive mechanisms that underpin good comprehension (Follmer & Sperling, 2018; Par, 2020; Song et al., 2020). It is universally accepted that reading strategies (a set of cognitive approaches and techniques) are critically important for comprehension (Al-Nujaidi, 2003; Banditvilai, 2020; Muijselaar et al., 2017; Peng et al., 2023).

They are one of the key factors in the comprehension process where the reader engages with the text using the strategies that are available to him or her and that are being applied to the text. As readers engage with the text's content, they make connections with their prior knowledge and do so in a way that is coherent for them. Using these strategies, readers construct a 'meaning representation' through predicted inferences and making sense of the content through the use of metacognitive strategies such as anticipating what they will read, questioning, visualising, summarising, and rereading (Anderson, 1999; Graesser, 2007; Mokhtari & Reichard, 2002).

Given the fact that utilisation of reading strategy is one of the most important reading components that contribute to the achievement of reading comprehension, Al-Rubaye (2012) conducted a study to detect Iraqi learners' perceptions of utilising reading strategies for reading comprehension. The participants of this study were 115 students who were studying in the USA. The data of this study were collected through a modified version of the Survey of Reading Strategies which was developed by Mokhtari and Sheorey (2002) and was used by several recent studies in the domain of

reading comprehension (Albazi & Shukri, 2016; Fathi & Afzali, 2020; Hasan, 2015; Mukhlif & Amir, 2017; Rahoomi et al., 2019). The results indicate that Iraqi students used global reading strategies more often than problem-solving and support reading strategies. Al-Rubaye (2012) argued that Iraqi students who studied in the USA have a good awareness of reading strategies as they can be considered proficient readers they can simultaneously use more than one strategy to gain reading comprehension.

In addition, Hasan (2015) did a study on the influence of teaching-learning strategies on the reading performance of Iraqi EFL college students to find out if it improves reading performance. The author divided the participants into an "experimental" and a "control". Each group contains 20 first-year college students. The students in the experimental group use the reading skill which they were taught, while the students in the control group use their traditional teaching method. After the experimenters provided the instruction to the students in the experimental group, the results revealed that the students in the experimental group significantly improved reading comprehension. The statistical results of the awareness questionnaire showed that the students in the experimental group used significantly more strategies than the students in the control group. The result of the study can strengthen the argument that students' awareness of the reading strategies would result in deeper reading comprehension.

Recent work by Aini and Akhiriyah (2022) discussed how reading strategies could be employed to improve students' reading comprehension and the relationship between these strategies and reading comprehension. The study, which was conducted among 9-graders at a junior high school in Surabaya, followed a correlational approach and recruited participants through convenience sampling. The data was gathered via a reading strategies questionnaire and a comprehension test. Aini and Akhiriyah (2022) found that readers often relied on problem-solving, global reading, and support reading strategies in reading. However, their relationship analyses revealed no significant association between the use of these techniques and reading comprehension. The researchers concluded that successful reading habits do not necessarily improve comprehension.

Reading strategies were also tested at that school level of study. Alkhateeb and Hasan (2016) studied the reading strategies used by Fifth and Sixth primary graders in government schools in the province of Babylon in Iraq. The students' reading strategies in English were tested using an adapted questionnaire by Oxford (1990). The researcher

stated that the purpose of the research was to find out how children who learn a language not used around them or in their environment can understand a reading text in English. Results indicated that students use a variety of strategies in learning and using English as a foreign language. The most frequently used type of strategy is the indirect metacognitive reading strategy. The researcher concluded that 'students have an extensive resort to learning strategies irrespective of their stage or their proficiency'. However, this claim needs more investigation as the researcher did not measure specific learning strategies.

Similarly, more recent work focused on learners of English struggling with understanding English texts (Manurung et al., 2023). The study analysed the strategies EFL students employ to improve reading comprehension and the relationship between those strategies and comprehension performance. The study involved senior high-school students in Batam, Indonesia who were given a reading strategy questionnaire and a reading comprehension test. Statistical analysis calculated the normality of the data and looked for the relationship between strategy use and comprehension. In contrast to Manurung et al. (2023) above, the authors found that problem-solving strategies were the most common strategies that students used, and that strategy use was strongly positively related to reading.

On the other hand, Par (2020) investigated whether the use of strategies relates to the EFL students' reading achievement in Indonesia. The participants were 56 EFL university students who majored in English and completed the SORS questionnaire to measure the participants' use of reading strategies and also Reading Comprehension Test with 35 multiple-choice items to measure their reading achievement. The summarised reading strategies are divided into Global, Problem Solving, and Supporting strategies.

Par (2020)'s findings indicated that EFL students are active users of strategies: Problem-Solving strategies are used more frequently than global and supporting strategies. Besides, there is a significant correlation between the use of overall strategies and students' reading achievement. Problem-solving strategies as predictors in terms of the student's reading achievement. In general, Par (2020) mentioned that the higher use of problem-solving strategies in reading activities is associated with a greater understanding of the text. This is very similar to the research conducted by Tobing (2013) who studied the relationship between the use of the overall strategy and students' reading comprehension abilities for 138 Indonesian high-school students. Tobing also

used SORS. The participants in their SORS test indicated that they use more problem-solving strategies than global and supporting strategies.

Moreover, Do and Phan (2021) have also conducted a survey by asking 123 undergraduate English majors students from Hong Bang International University about the application of problem-solving, global, and support reading strategies. Furthermore, after the survey, all participants should complete a TOEIC-formatted comprehension test and then their results categorized into 3 types which are good, medium and poor readers. The mean scores of the reading strategy usage were compared between 3 types of readers and then analysed over groups. The result showed that the reading strategies on academic text are being used with a moderate frequency. The frequency of using reading strategies by female readers when compared shows that proficiency levels are perceived as a predictor of metacognitive awareness for reading, with high-reading-ability students applying reading strategies more frequently than poor-reading-ability students. This is in line with the point that these three types of reading strategies should be applied in teaching, especially global and support reading strategies for Vietnamese learners.

Fathi and Afzali (2020) studied the increasing knowledge of Taiwanese students about the use of reading strategies and their effect onEnglish reading comprehension. The researchers focused more on how the increase in such knowledge may reduce reading anxiety and level up their self-efficacy and proficiency. Therefore, the researchers used a quasi-experimental research and training for 15 weeks. The researcher made two experimental groups (experimental and control groups) with 31 students in each group. The experimental group used to receive training on reading strategy and the control group used to receive traditional training. The result was that the students who received training on the use of reading strategies showed less anxiety during their reading in English than the students in control group. Also, the students in the experimental group show higher self-efficacy in four determiners of self-affirmation, perseverance of effort, verbal persuasion, and performance overall respectively to reading in English than the students in the control group.

Oranpattanachai (2023) studied the relationship between the reading strategies of Thai EFL tertiary students and their perceived self-efficacy in reading and reading comprehension. The study used the data obtained from 31 Thai engineering students who were taking TOEIC tertiary and had an overall medium ability in English. The data was collected from the reading strategy questionnaire, the reading self-efficacy

questionnaire, and the TOEIC reading comprehension test. According to the descriptive results, the reading comprehension ability is below the mean while the perceived reading self-efficacy is at a moderate level. In addition, the test of Pearson's correlation coefficient helped to determine the significant relationship between their overall reading strategy and reading ability. It also showed that there is a significant relationship between their ability in reading comprehension and top-down reading strategies. On the other hand, the test did not show a significant relationship between the ability to read and the bottom-up reading strategies. Furthermore, the descriptive results showed that their perceived reading self-efficacy is at a moderate level. In addition, the subsequent correlation test showed a significant relationship between their ability in reading comprehension and self-efficacy in reading.

It is important to note that despite the large number of studies reporting a significant relationship between reading strategies and reading comprehension, as depicted above, other studies have other challenging reports: they report no association between general reading strategies use and participants' reading comprehension skills (Hoàng, 2016; Meniado, 2016). For instance, Hoàng (2016) investigated the relationship between the utilisation of reading strategies and proficiency in reading comprehension among 85 Vietnamese EFL students who attend British universities in the UK. The primary mechanism of data collection was a questionnaire adapted from Oxford et al. (2004) and Sheorey and Mokhtari (2001) to measure participants' self-reported reading strategy use. The study found no significant relationship between their utilisation of reading strategies and their reading comprehension proficiency abilities. Similarly, Meniado (2016) reported no correlation between metacognitive reading strategies and reading comprehension abilities.

Considering these unresolved findings from the reviewed correlational studies and the lack of any Iraqi studies that investigated the relationship between the utilisation of reading strategies and reading comprehension skills among secondary-school participants (to the best of the researcher's knowledge), the present study aims to fill this research gap and, hopefully, to contribute to the body of knowledge on foreign language reading, especially in terms of the Iraqi context.

2.11 Relationship Between Vocabulary Size and Reading Comprehension

The role that vocabulary size plays in reading comprehension is a topic that has been debated by many researchers for quite some time, in fields such as linguistics, cognitive psychology, and education (Dong et al., 2020; Röthlisberger et al., 2023; Tong et al., 2023). This interplay is important for understanding how reading skills may work and what cognitive processes contribute to good reading comprehension.

There is a robust body of literature finding that vocabulary size is an effective predictor of reading comprehension (Alzahrani et al., 2021; Tong et al., 2023; Zhang & Zhang, 2020). Specifically, the breadth of one's vocabulary predicts their ability to understand written texts. This relationship holds across the lifespan and is robust across different groups defined by age and educational background (Alshehri, 2023; Alzahrani et al., 2021; Ocampo & McNeill, 2019).

It appears that vocabulary size is a major factor in reading comprehension performance (Al-Khasawneh, 2019; Alzahrani et al., 2021; Dagnaw, 2023). The ability to understand what is read depends on a number of factors, one of which is vocabulary knowledge (Masrai, 2019). Several authors have highlighted the relationship between vocabulary size and successful reading, however, there is a lack of work addressing the role of vocabulary size and its effect on reading comprehension performance among EFL learners, especially Iraqi students (Al-Nujaidi, 2003; Alzahrani et al., 2021; Nouri & Zerhouni, 2016; Qrqez & Ab Rashid, 2017). Recent work by Ibrahim et al. (2016) also supports this assertion. Researching the relationship between reading comprehension and vocabulary size among a sample of 129 pre-university EFL students, Ibrahim et al. found a statistically significant relationship between vocabulary size and reading comprehension.

Similarly, Al-Khasawneh (2019) investigated the contribution of vocabulary knowledge to reading comprehension in Saudi EFL learners. The participants were first year students at King Khalid University. They took a vocabulary size test based on a test developed by Schmitt et al. (2001) and a TOEFL-based reading comprehension test. The results of the survey showed that the total number of word families for the vocabulary of Saudi EFL learners is 2025, which, according to reports (Laufer, 1997; Nation, 2001) is a number that enables learners to comprehend 90% of written texts. Additionally, Al-Khasawneh (2019) found a significant correlation between vocabulary

size and reading comprehension, which implies that vocabulary knowledge is a big determiner of reading comprehension.

However, more recent studies on vocabulary size with Saudi secondary school EFL learners, such as the investigation made by Alzahrani et al. (2021) on its relationship to reading comprehension, show that students lack vocabulary knowledge. Participants completed two tasks: vocabulary size test consisting of the four first word-families (1000-4000 word frequency level) for Beglar and Nation (2013), and an adapted reading comprehension test. The results showed that most students have low vocabulary. The level of vocabulary size was found to be a good predictor of reading comprehension. Participants who performed better in the reading comprehension test had higher levels of vocabulary.

Furthermore, Masrai (2019) investigated the contribution of orthographic vocabulary size based on three frequency-based ranges (ie, high-, mid- and low-frequency-based) in predicting L2 reading comprehension. He tested the vocabulary size of 256 tertiary-level Arab learners of English, then administered the listening and reading part of the IELTS to the same group of participants. These learners' was from B2 to C1, according to the CEFR. The results showed that the high- and mid-frequency word range was uniquely related to L2 reading comprehension for the whole sample. However, when the sample was split into two subgroups, low- and high-proficiency, only the high-frequency range was significantly related to L2 reading comprehension in the low-proficiency subgroup, whereas in the high-proficiency subgroup, the high-, mid- and low-frequency-based ranges were uniquely related to L2 reading comprehension, and the mid-frequency range accounted for the highest variance. These findings showed us that it is not only important to pay attention to the size of vocabulary in general, but also important to focus on mid-frequency words instead of the highest-frequency words to foster L2 reading comprehension. This is a piece of empirical evidence that helps us strategise vocabulary size development focusing on mid-frequency words to help L2 reading comprehension.

Ocampo and McNeill (2019) also recently studied 140 Thai secondary school students who completed sections of the PISA reading test and an English vocabulary size measure to establish the relationship between vocabulary size and reading comprehension measured by the PISA reading literacy tests. There were significant positive correlations between overall reading comprehension and vocabulary size at 2000, 3000, 5000- word families and, when analyses went further, there were significant

positive correlations between vocabulary size and three specific reading skills assessed by PISA: retrieving information, interpreting texts, and reflecting and evaluating. Vocabulary size, then, not only relates strongly to overall reading comprehension, but to many of the individual reading skills as well.

Alshehri (2023) also explored the relationship between vocabulary size and reading comprehension on EFL learners' receptive skills. The specific purpose was to examine to what extent vocabulary size influences the reading and listening skills of Saudi EFL learners. The investigation was conducted on 38 university undergraduate Saudi EFL learners. The researcher used the Vocabulary Size Test (VST) (Nation and Beglar, 2007), which was constructed to measure the size of vocabulary across different word families. Moreover, for reading comprehension and listening comprehension, the researcher took tests from the TOEFL official application from ETS. The findings demonstrated that the vocabulary size averaging 2790 words of Saudi EFL learners at the tertiary level. Furthermore, the correlation between vocabulary test scores and reading/listively correlated; this means that the higher vocabulary performance may produce a better performance in reading and listening. The statistically significant level was at 0.01. Based on the findings, the researcher recommended that a variety of teaching and learning techniques for vocabulary would benefit both teachers and learners.

In short, previous studies on vocabulary size have largely focused on the role of vocabulary learning strategies on expanding vocabulary size, while there is little research on the role of vocabulary size in reading comprehension, and even fewer studies on secondary school EFL learners. For example, in the most recent study, Mahmood and Arslan (2017) examined the vocabulary size of 118 university students who were learning English as a foreign language at Sulaymaniyah University in Iraq. The findings revealed that while students were able to use 2000-level vocabulary quite well, they experienced difficulty with 3000-level vocabulary words. Unfortunately, they were very limited in their knowledge of the 5000-level vocabulary words. Overall, the students' vocabulary size was below the mastery level. This means that vocabulary knowledge for Iraqi EFL students is critically low.

2.12 How Self-Efficacy Affects Reading Strategies, Vocabulary, and Comprehension

Research demonstrates that self-efficacy interacts dynamically with various aspects of reading abilities. Students who possess self-efficacy demonstrate better text engagement through the use of advanced reading strategies such as inferencing and self-monitoring (Al-Khresheh & Alkursheh, 2024; Alabbaichy et al., 2024; Alharbi, 2021). Students who believe in their ability to learn new words work harder to expand their vocabulary and research shows this vocabulary expansion is essential for reading comprehension success because of its connection to self-efficacy (Schmitt & Schmitt, 2020). Text processing becomes more efficient for learners who merge strong self-efficacy with good reading strategies and extensive vocabulary knowledge resulting in better interpretation (Mills et al., 2007).

Given these interconnections, this section explores the relationship between self-efficacy and three essential aspects of reading development: reading strategies, vocabulary size, and reading comprehension. The influence of self-efficacy across various reading development domains supplies valuable information for designing educational methods that lead to independent reading success in English as a Foreign Language settings.

2.12.1 Relationship Between Self-Efficacy and Reading Strategies

Some studies indicate that students choose and implement reading strategies based on their self-efficacy beliefs. Students who exhibit strong self-efficacy beliefs apply deeper reading strategies by making predictions and summarizing information while also asking themselves questions (Ahmadian & Pasand, 2017; Bergey et al., 2019; Bozgun & Can, 2023). Students who implement these strategies both understand reading material better and retain information more effectively. Students who possess low self-efficacy generally depend on basic strategies like rereading or memorization which often lack effectiveness for improving comprehension.

Bozgun and Can (2023) explored how self-efficacy influences metacognitive reading strategies in English as a Foreign Language students. Students who possess powerful self-efficacy beliefs consistently check their understanding of the text while making necessary adjustments to their reading methods and demonstrating greater

determination when facing reading challenges. Earlier studies by Schunk (2003) showed that learners with high self-efficacy tend to adopt self-regulated learning practices such as planning their reading tasks, monitoring their comprehension, and evaluating their reading strategies.

Okyar (2021) also examined the impact of self-efficacy on students' reading strategy deployment within academic environments. Students who demonstrated higher self-efficacy showed a greater tendency to use inferencing along with skimming and scanning techniques which helped them process texts more quickly. Students with greater self-efficacy choose not only to use learning strategies but also select higher quality and more advanced approaches for their application.

The motivation of students to engage with reading strategies depends on the level of their self-efficacy. According to Alharbi's (2021) study, students who possess high self-efficacy showed greater perseverance with challenging reading tasks and explored various reading strategies to enhance their understanding. Bandura (1997) claimed that self-efficacy serves as motivation which leads people to engage with challenges and maintain effort despite obstacles.

Likewise, Oranpattanachai (2023) explored the effects of self-efficacy on students' strategy choices in English as a Foreign Language (EFL) learning settings. Students with high self-efficacy demonstrated greater risk-taking behavior during reading activities including inferring unfamiliar word meanings from surrounding text instead of consulting dictionaries. Students need to develop reading fluency and comprehension skills through their readiness to take risks.

Although many studies show that self-efficacy affects strategy use others believe this relationship works in both directions. Delgado-Vásquez et al. (2022) discovered through their research that students who adopted effective reading strategies reported higher self-efficacy levels over time. The findings showed that students who consistently applied effective reading strategies developed higher self-efficacy as time progressed. The findings indicate that while self-efficacy affects strategy use, strategy use also helps build self-efficacy beliefs.

In a longitudinal study, Jiang (2023) investigated the changes in students' self-efficacy alongside their reading strategy development throughout one academic year. Students who started with low reading confidence but implemented effective strategies saw their self-efficacy beliefs strengthen over time. Students need practice opportunities

to develop and perfect their reading strategies which boosts their confidence in reading abilities.

The connection between students' self-efficacy and their use of reading strategies depends on instructional practices and the learning environment. Shehzad et al. (2021) demonstrated that explicit reading strategy instruction led to increased self-efficacy among students who then independently used these strategies. Teachers fulfill a vital function in developing students' self-efficacy by providing them with essential reading tools for effective practice.

Apriliyani and Usuludin (2023) investigated how various teaching approaches influenced students' self-efficacy and their use of reading strategies. Students who practiced collaborative reading techniques like peer discussions and reciprocal teaching showed higher levels of self-efficacy than students who participated in standard teacher-led learning settings. The research shows how social interaction together with scaffolding methods boost both the use of reading strategies and students' self-efficacy beliefs.

A few studies challenge the widespread belief that self-efficacy always improves reading strategy use. For instance, Cho et al. (2021) discovered that students exhibiting overly strong self-efficacy beliefs often misjudge their reading competencies and are less inclined to apply compensatory strategies when reading complex materials. Although self-efficacy contributes positively to performance, it becomes detrimental when it reaches a level that produces overconfidence and complacency.

In brief, the relationship between student self-efficacy and their use of reading strategies receives strong support from previous studies which demonstrate that students with elevated self-efficacy levels utilize more effective reading strategies. However, the need for additional research becomes evident due to variable findings alongside contextual factors and the possibility of bidirectional relationships. When educators understand how self-efficacy relates to strategy use they can create teaching methods that build student confidence and improve their strategic reading abilities.

2.12.2 Relationship Between Self-Efficacy and Vocabulary Size

Self-efficacy functions as a vital component of language learning by affecting learners' methods of vocabulary acquisition. Various studies reveal that self-efficacy impacts students' vocabulary acquisition by directing the way they utilize vocabulary

learning techniques. According to Mizumoto (2012), students who possessed high self-efficacy demonstrated a greater tendency to use deep-processing strategies including contextualization and mnemonic techniques for better long-term vocabulary retention. Students with low self-efficacy typically depended on rote memorization methods which prove ineffective for acquiring meaningful vocabulary knowledge.

The research by Onoda (2014) explored the impact of self-efficacy on Japanese EFL students' effort management during vocabulary learning. Students who believed strongly in their own abilities maintained greater dedication to learning vocabulary and showed improved memory and recovery of words. Research by Schunk (2003) indicates that students who possess high self-efficacy demonstrate increased motivation and persistence when working through difficult tasks.

Wang et al. (2022) analyzed how self-efficacy beliefs connect with English vocabulary learning patterns in Chinese students who learn English as a foreign language. Students who had high confidence in their abilities turned to extensive reading practices and vocabulary applications in combination with social English language interactions to actively enhance their vocabulary. Self-efficacy levels determine both the volume of vocabulary learned and the effectiveness of learning approaches.

Students' beliefs about their capabilities create a clear connection to their motivation which then influences their determination to continue learning vocabulary. Dörnyei (2014) shows that learners with motivation demonstrate increased time and effort in vocabulary development if they maintain confidence in their capacity to succeed. According to Alharbi (2021), students with strong self-efficacy beliefs set demanding vocabulary learning targets and continued their efforts despite encountering difficulties.

Oranpattanachai (2023) also conducted a study that explored how self-efficacy beliefs affect vocabulary learning motivation in Thai students studying English as a foreign language. Students with robust self-efficacy beliefs displayed stronger intrinsic motivation levels and employed a combination of word mapping, corpus analysis and flashcard-based retrieval practice to improve their vocabulary skills. Self-efficacy impacts vocabulary learning through two main roles: it determines which learning strategies students choose to use and motivates them to continue studying while deciding their study objectives.

While most research supports the idea that self-efficacy influences vocabulary size, some researchers have presented evidence that suggests this relationship functions reciprocally. A longitudinal study by Naseri and Zaferanieh (2012) revealed that students who used vocabulary learning techniques on a regular basis experienced a rise in their self-efficacy levels over time. Learning new vocabulary increases students' confidence in their language abilities which leads them to further expand their vocabulary knowledge.

Jiang (2023) also conducted a year-long study which examined both self-efficacy development and vocabulary learning enhancement among intermediate English as a Foreign Language students. As students implemented effective learning strategies over time they experienced increased self-efficacy despite initially having low confidence in their vocabulary learning abilities. The study shows that educational scaffolding combined with structured learning activities enhances vocabulary knowledge and builds self-efficacy in learners. Higher vocabulary knowledge strengthens self-efficacy which drives learners to seek additional vocabulary learning instead of self-efficacy only increasing vocabulary size one way.

Additionally, research findings show that instructional practices and learning environments significantly determine how self-efficacy affects vocabulary acquisition. According to Shehzad et al. (2021), explicit vocabulary teaching methods using etymology analysis and collocation practice enhanced student self-efficacy levels and improved vocabulary retention. Through structured vocabulary instruction learners gain increased confidence and motivation to become actively involved in vocabulary learning tasks.

The study by Apriliyani and Usuludin (2023) investigated how collaborative vocabulary learning activities including peer discussions and gamified learning impacted students' self-efficacy and vocabulary acquisition. According to their research findings students who engaged in collaborative learning demonstrated higher self-efficacy levels and adopted more successful vocabulary learning strategies than students who studied in traditional teacher-centered classrooms. The findings indicate that social engagement and instructional support are essential elements for developing self-efficacy during vocabulary acquisition.

Although most researchers agree that self-efficacy leads to better vocabulary learning results, several studies show contradictory evidence. Research currently shows that the connection between self-efficacy and language learning outcomes demonstrates

complexity. For instance, Nordlund et al. (2023) investigated Swedish teenagers' vocabulary knowledge and self-efficacy through online L2 search tasks. The findings revealed that students displayed high confidence levels yet demonstrated only modest vocabulary abilities which pointed to their possible overestimation of their language skills. The acquisition of vocabulary appears to be significantly influenced by general language aptitude and English exposure which can overshadow the effects of self-efficacy.

Mills et al. (2007) shows that self-efficacy typically leads to better language learning results but this effect changes based on personal learner traits and environmental conditions. The evaluation of self-efficacy's impact on vocabulary acquisition requires an analysis of multiple variables like language exposure and aptitude.

A number of researchers doubt whether self-efficacy consistently produces positive results in vocabulary learning. Cho et al. (2021) showed that students who possess excessive self-efficacy beliefs tend to misjudge their vocabulary knowledge which results in them reviewing their learning less often. Self-efficacy benefits vocabulary learning but excessive levels can result in overconfidence which diminishes student effort.

In a nutshell, research consistently demonstrates that self-efficacy impacts vocabulary size while showing learners with strong self-efficacy beliefs tend to adopt better vocabulary learning methods and maintain their efforts resulting in expanded vocabulary knowledge. The existing research shows different results based on context and bidirectional influences which necessitates additional studies on this relationship. Exploring the relationship between self-efficacy and vocabulary learning provides educators with valuable insights to create teaching methods that enable students to develop stronger confidence and strategic vocabulary learning approaches.

2.12.3 Relationship Between Self-Efficacy and Reading Comprehension

There is an extensive number of studies that sought to examine the relationship between self-efficacy and reading comprehension among EFL learners. For instance, Taghizadeh and Jamali (2018) investigated the influence of self-efficacy on the reading comprehension performance of 50 intermediate Iranian learners. The main purpose of the study was to determine how students' self-efficacy would affect their reading

comprehension performance. For this reason, a questionnaire on general self-efficacy and a questionnaire on reading strategy were administered to learners. The main aim of these questionnaires was to find out the relationship between the students' self-efficacy and reading comprehension performance. For the data analysis, Pearson Product-Moment has been used. To investigate the self-efficacy of the learner, a General self-efficacy scale and Student self-evaluation scale were administered two times during the semester. The results of the questionnaires indicated a direct correlation between students' self-efficacy and reading comprehension performance.

Most recently, Peura et al. (2019) examined the interplay between reading self-efficacy, reading comprehension, and reading fluency in 1327 Finnish primary school children. The link between self-efficacy and reading fluency development was examined at three levels of specificity. Self-efficacy was significantly and positively related to the development of fluency. However, the strength of the relationship depended on the specificity of the self-efficacy measures. General self-efficacy was not related to fluency, but both the intermediate and specific self-efficacy were significantly and positively related with fluency. Peura and colleagues (2019) concluded that 'progress toward fluency is foreseeable among individuals with an intermediate level of self-efficacy'.

Another study by Sofyan and Jayanti (2019) examines the correlation between self-efficacy to read and reading comprehension in secondary school science students. Data was collected from reading self-efficacy questionnaire and a test for reading comprehension. Pearson Product Moment was conducted using SPSS 15 for the data analysis. The results of this study show that there is a significant and positive correlation between students' perception of their own self-efficacy to read and their ability to comprehend what they read. Following from the results, the more you believe to be a competent reader, the better you understand what you read. Overall, regardless of the range of quality in which the majority of these studies were conducted, it's evident from the results that there is a correlation between one's own self-efficacy with reading and their ability to comprehend what they read. It is likely that those who demonstrate higher levels of self-efficacy will perform better at reading comprehension.

In their recent research, Shehzad et al. (2021) studied the relationship between sources of self-efficacy and metacognitive reading strategies mediated by self-efficacy beliefs as a predictor of reading comprehension (RC). They used a correlational design and asked 383 Saudi EFL university learners to fill out questionnaires and take the RC

test. The authors analysed the relationships using structural equation modeling (SEM). The results showed a significant correlation between sources of self-efficacy and self-efficacy beliefs with the exception of physiological state. Furthermore, there was a positive and significant correlation between all three metacognitive reading strategies and self-efficacy beliefs. Self-efficacy beliefs were also significantly correlated with reading comprehension. In the mediation analysis, self-efficacy beliefs mediated the relationship between self-efficacy sources and reading comprehension, except for the physiological state. Additionally, self-efficacy beliefs also mediated the relationship between all three metacognitive reading strategies and reading comprehension. The study has implications for learners, teachers and policy-makers.

Alharbi (2021) examined what English as a foreign language (EFL) learners believe about Bandura's four sources of reading self-efficacy that affect reading comprehension. The study focused on qualitative research using six EFL learners from six Saudi public universities and using specific sampling criteria during one academic semester. The data were collected using semi-structured interviews and analysed thematically. The findings showed that the sources of self-efficacy in an English reading comprehension situation were influenced by several factors including the effect of teachers, competitive settings, level of confidence, and time constraints. The results had some implications for the teaching and learning of reading comprehension in an EFL setting. The study provided theoretical and practical implications for learners, teachers, and policymakers to improve their self-efficacy beliefs and to enhance English reading comprehension.

Apriliyani and Usuludin (2023) conducted a study about the relationship between self efficacy and reading comprehension achievement for eleventh-grade high school students. They employed a quantitative correlation research design which focuses on 'examining the relationship between two qualitative variables' (p. 154). The study involved 179 eleventh-grade students from high schools in Indonesia, with two instruments, namely, a reading test and a self-efficacy questionnaire. The reading test was adapted from TOEFL for juniors, and the self-efficacy questionnaire. The result showed a very weak correlation between self-efficacy and reading comprehension ($r = .174$, $p = .020$).

Delgado-Vásquez et al. (2022) conducted a study to analyse the correlation between reading comprehension, reading self-efficacy, and attitude towards reading in students of a state university in Metropolitan Lima. The sample consisted of 1102

university students selected using a non-probabilistic sampleional in terms of professional areas. In this study, the researchers used a correlational design to determine if there was a correlation between reading comprehension and reading self-efficacy, reading comprehension and attitude towards reading, and reading self-efficacy and attitude towards reading. Through independent t-tests and Cronbach's alpha, they concluded that there is a statistically significant relationship between reading comprehension, reading self-efficacy and attitude towards reading in the respondents of this study.

Javad and Masood (2019) researched how self-efficacy affects reading comprehension in Iranian EFL learners. Reading comprehension is an important ability that has a great effect on academic achievement. A lot of students cannot understand the text they are studying, and they need to learn how to read more efficiently. They decided to research whether learning a reading strategy can improve reading comprehension. In this study, they are looking at how the summarising strategy can improve the reading comprehension of intermediate Iranian EFL learners. For this study, the researchers used a pretest-posttest design with two classes of intermediate English learners (an experimental group and a control group).

For the test-retest, both groups were given the same reading test as the pretest and the posttest. The experimental class received a treatment to help them to improve their self-efficacy. After the treatment, the score was collected and the experimenter found that the experimental group had a much better score than the control group in the final reading test. This experimenter concluded that the self-efficacy level of the experimental group (a class that received the intervention) after the final reading test was much better than the control class (a class that did not receive the treatment). Secondly, the experimenter found that the self-efficacy level of the female and male were about the same. Similar findings were reported by Philip (2006).

In brief, self-efficacy plays a significant role in reading comprehension by influencing how people read, engage with and understand what they read (Alharbi, 2021; Apriliyani Usuludin, 2023; Cho et al., 2021b; Delgado-Vásquez et al., 2022; Jiang, 2023; Oranpattanachai, 2023; Shehzad et al., 2021), including what they do when faced with a challenging piece of text. By understanding the effect of self-efficacy, school teachers and researchers can develop targeted interventions to help students with their reading skills, but also their belief and confidence in the ability to understand a text and extract meaning from it.

2.13 Summary

The chapter explained the types of reading strategies used by EFL learners and how they influence their reading comprehension performance. The concept of self-efficacy and the possible role that this variable might play in reading comprehension was also explained and some relevant studies carried out in the past were reviewed. The review showed that although some efforts have been made to investigate the role of reading strategies, vocabulary size, and self-efficacy in EFL reading comprehension, there is still a need for shedding more light on the use of these factors among Iraqi secondary school EFL students. The following chapter aims to address the methodology and tools employed to carry out this investigation.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 Introduction

This chapter aims to explain the research methodology and procedures needed to accomplish the study. It discusses research design, participants' characteristics, research instruments, data collection procedures, and the statistical methods used for data analysis. In this chapter, it is reiterated from Chapter 1 that the goal of this study was to (1) determine what reading comprehension strategies are most commonly used by Iraqi secondary school EFL students; (2) determine what Iraqi secondary school EFL students' vocabulary size is; and (3) determine whether or not there is a relationship between strategy use, vocabulary size, and reading comprehension. In addition, as a result of the above questions, this study aims to explore the mediating role self-efficacy plays in the relationship between reading strategies, vocabulary size, and reading comprehension. Furthermore, this study also aimed to shed some light on the problems Iraqi secondary school learners are facing in reading comprehension, as revealed by the discussions of the qualitative focus groups with the participants.

3.2 Research Design

The study used a mixed-methods design. According to Maxwell and Loomis (2003), the mixed-methods design is characterised by collecting both quantitative and qualitative data. More specifically, the design is called a two-phase model, or an explanatory sequential mixed methods design, with each form of data collection informing the other (Cameron, 2009; Creswell, 2009). The rationale for using this mixed-methods design is that it helps to develop a more comprehensive and nuanced understanding of the research topic (Creswell, 2021; Dawadi et al., 2021). For example, quantitative data can provide statistical trends, but these results may lack the depth of contextual understanding, whereas qualitative data allows you to see how and why these trends or patterns arise (Leavy, 2022). In other words, it provides more detailed descriptions, narratives, and accounts from the participants. Involving both quantitative and qualitative approaches to data collection can also help the present study to

'triangulate' results and findings by adding to the reliability of results that can be generalised to other contexts (Creswell & Guetterman, 2019). More details on the quantitative and qualitative aspects of the design of the present study are provided in the subsections that follows.

3.2.1 Quantitative Data Approach

The present study was conducted in order to investigate to what extent the reading strategy, vocabulary size and reading self-efficacy would modulate the reading comprehension performance of Iraqi secondary school EFL learners. Therefore, a correlational design was employed, allowing for the examination of how the independent variables of the study would influence students' reading comprehension performance.

The independent variables were the reading strategy, vocabulary size and reading self-efficacy of the participants, while reading comprehension performance was the dependent variable of the study. To obtain quantitative measure of these variables, the study used the following instruments:

a) Survey Reading Strategy Questionnaire (adapted from Mokhtari and Sheorey 2002): The frequency of using reading strategy by Iraqi secondary school EFL learners
b) Vocabulary Size Test: it was adapted from Beglar and Nation (2013) to estimate participants' vocabulary size. This test allowed for an estimation of the English vocabulary receptive knowledge of students, which is essential for reading and understanding written text.
c) Self-Perception Scale: The Self-Perception Scale was adapted from Henk and Melnick (1995). The purpose of the scale was to assess students' beliefs in their ability to understand English texts.
d) Reading Comprehension Test: Participants' performance was measured using a standardised Reading Comprehension Test (RCT) according to the Common European Framework of Reference (CEFR). The RCT measured students' ability to comprehend and interpret English texts across various genres and levels of text difficulty.

This quantitative data from administering these instruments would help in understanding how reading strategies, vocabulary size and reading self-efficacy would affect the reading comprehension performance of Iraqi secondary school EFL learners.

3.2.2 Qualitative Data Approach

The quantitative data approach is a method that focuses on collecting, analyzing, and interpreting numerical data. Although the quantitative approach helps the researcher to get a general picture of the investigated issue, the qualitative approach can bring more depth into the context and the factors that affect the targeted phenomenon (Creswell & Guetterman, 2019; Hatch, 2023). This study used a focus group discussion to probe more information about the factors that affect the reading comprehension performance among Iraqi secondary school EFL learners. The discussions with the prospective participants may present an opportunity to probe more nuanced views, personal experiences, and contextual factors that cannot be captured through a quantitative approach (Creswell & Guetterman, 2019; Lichtman, 2023).

The qualitative data may enrich a profound knowledge about why the participants use certain reading strategies but not other strategies, or why the participants have poor vocabulary size and poor reading comprehension skills, and hence an approach that can help in explaining more closely about the challenges the Iraqi secondary school EFL learners have in reading comprehension. Table 3.1 below is a summary of the quantitative and qualitative variables of the study.

Table 3.1
The Variables of the Study

	Independent Variables	**Mediating Variable**	**Dependent Variable**
Quantitative	Reading Strategies Global Strategy Problem Solving Strategy Supplementary Strategy Vocabulary Size	Self-Efficacy Beliefs	Reading Comprehension performance
Qualitative	Focus group discussions		

As given in Table 3.1, the participants' reading strategies and vocabulary size are the two main *independent* variables of the study, whereas the participant's reading self-efficacy is the *mediating* variable and reading comprehension performance is the *dependent* variable.

In the quantitative method, the study aims to investigate the extent to which reading strategies and vocabulary size would contribute to reading comprehension performance among Iraqi secondary school EFL learners, and the extent to which reading self-efficacy would modulate the relationships between reading strategies, vocabulary size, and reading comprehension performance. However, in the qualitative data approach, a follow-up qualitative data gathering was carried out using the focus group discussions to further enrich our understanding of the challenges encountered by Iraqi secondary school students in reading comprehension classrooms, and hence a mixed-methods approach to triangulate the data and findings of the present study.

3.3 Research Setting

The schools involved in the present study were 8 Iraqi secondary schools. All of which were state schools based in Baghdad. They are typical public secondary schools as they follow the same English curriculum and textbook provided by the Iraqi Ministry of Education, and they are subject to the same system of examinations and assessment. It is for these reasons that they have been chosen for this study.

The eight schools were selected using purposive sampling based on the common needs of public secondary schools in Iraq, the population of students, the curriculum and teaching of English in Iraq. The inclusion criteria for school selection included the following:

1. The schools were public secondary schools located in Baghdad,
2. The schools were mixed-gender, following the national English curriculum, and
3. The students in the schools were willing to participate voluntarily.

The schools were excluded if they were private or international with non-national curricula. Additionally, the schools were excluded if they were located in rural areas, as English may be taught in lower quality or with fewer resources.

3.4 Participants and Sampling Method

The participants in this study comprised secondary school students enrolled in public secondary schools in Bagdad, Iraq. All participants were 18-year-old students in Grade 12. For representative issues, both male and female students were eligible to take part in the survey of the study. A purposive sampling approach was employed to make sure that the participants shared common characteristics related to their age and educational background, and therefore, some homogeneity among the sample was maintained (Creswell, 2012).

An instrument for self-reported proficiency was administered before the main study to get a preliminary sense of participants' skills (see Appendix A). Self-assessment instruments are generally considered to be a practical and effective measure of learners' perceptions of their skills, especially in large or classroom-based samples (Ross, 2006). The proficiency data were not included in the main analyses; however, it was helpful to collect this data as background information for describing the sample and to ensure transparency in terms of participant skills. The following table offers a concise representation of the primary demographic and language background attributes of the Iraqi secondary school EFL participants.

Table 3.2
Participants' Characteristics Profile

Characteristic	**Description / Value**
Age (years)	Mean (M) = 17.8, SD = 0.40
Gender	Male: 49% (87 participants) Female: 51% (91 participants)
Self-Rated English Proficiency (5-point Likert scale)	Below average (2): 8% Average (3): 11% Above average (4): 58% Excellent (5): 23%

As shown in the table, the mean age of the participants was approximately 18 years. The distribution of participants across gender was almost equal, with 52% female students. In terms of language proficiency, the majority of the participants (81%) placed themselves as having above-average to excellent English skills compared to their fellow

classmates. Taken together, this suggests that the participants of the study were a relatively confident group of learners.

3.5 Sample Size

Sample size planning aims at choosing a sufficient number of participants that would make the study unnecessarily expensive or difficult (Cohen, 1988; Green, 1991). It is a well-known fact that different statistical methods have different power, precision, and practicality depending on the sample size (Cohen, 1988). This is apparent when using a program such as G*Power to calculate sample size where different analyses provide different outcomes (Faul et al., 2007).

In relation to the study's objectives, the study aimed to examine the relationships among specific variables using regression analysis, which requires sample sizes based on statistical power rather than population-proportion formulas such as the ones related to Krejcie and Morgan (1970). Krejcie and Morgan's (1970) table is mainly intended for random sampling or a known proportion of the population, whereas the design of the present study was purposive and restricted to accessible secondary schools in Baghdad, where a population-based table was not applicable.

As Hair et al. (2013) notes, the minimum sample size for a regression analysis depends on the number of predictors or "arrows" targeting the dependent variable. The present study's two independent variables and one mediator would result in five arrows targeting the dependent variable. As such, based on Hair et al.'s (2013) suggestion, a minimum of 147 participants would be required to detect an $R^2 = 0.10$ effect size at $\alpha = 0.05$. A sample of 180 participants were used in the present study. The sample size exceeds the minimum needed to provide sufficient power and to allow for potential nonresponses and missing data. The number of participants was thus deemed to be sufficient to produce stable estimates for the regression analyses, and it also represents a practical compromise between methodological and feasibility concerns, as the data collection was restricted to a few secondary schools. This sample size is also consistent with typical regression-based educational studies.

The qualitative data were collected via focus-group discussions (FGDs). A focus-group discussion is a method for collecting in-depth qualitative data from a small number of participants through a discussion on a specific topic (Krueger, 2014). An ideal FGD consists of 5 to 8 participants (Dworkin, 2012) as this number allows for a

detailed discussion with the possibility of in-depth interaction among participants that results in generation of a rich set of qualitative data (Kitzinger, 1995). Six participants were recruited for the focus-group discussion.

3.6 Instruments of the Study

A battery of test instruments was used to address the research questions of the study. This section is dedicated to introducing these instruments and how they measured the targeted variables of the study.

3.6.1 Survey of Reading Strategies (SORS)

Reading strategies are the approaches that readers employ while reading. In the context of the present study, Research Question 1 essentially asks about the particular reading strategies that Iraqi secondary school EFL students tend to frequently use. To answer this question, a Reading Strategy Questionnaire developed by Mokhtari and Sheorey (2002) was adapted (See Appendix B). This questionnaire was developed to discover the reading strategies that students use to overcome the difficulties they face while reading school materials. Reading strategies are the ways in which students read. They are divided into three types of reading strategies, namely global reading strategies, problem solving strategies, and support strategies.

a) *Global reading strategy*: Readers approach a text for the first time through a universal strategy that they reflect upon to determine why they are reading that text (Mokhtari & Sheorey, 2002).
b) *Problem-solving reading strategies*: These are local, focused approaches to reading that readers adopt when they encounter problems while reading (eg, Mokhtari Sheorey 2002).
c) *Supporting reading strategies*: These help to improve reading comprehension and retention (Mokhtari Sheorey, 2002)

The SORS has 30 items. Each item is scored on a five-point Likert scale, from 1 (“I never or almost never do this”) to 5 (“I always or almost always do this”). The

minimum and maximum scores for the questionnaire are 30 and 150, respectively. The higher the score is, the greater is the use of these strategies (Mokhtari & Sheorey, 2002).

3.6.2 Vocabulary Size Test

It is a test that provides an estimated measure of participants' vocabulary size (see Appendix C). In line with Research Question 2, this test was meant to assess students' written receptive vocabulary size in English with the goal of determining whether EFL students have an adequate vocabulary size to complete tasks, such as reading a novel, reading a newspaper, or listening to a friendly conversation efficiently (Beglar & Nation, 2007).

This test has 14 family words that are mainly classified between high-frequency words, mid-frequency words, and low-frequency words. Each family tests the knowledge of 10 English words, and thus making a total of 140 questions in the test. High-frequency words refer to those basic words, whereas low-frequency words refer to those that are less frequent. According to Beglar and Nation (2007), high-frequency words are reflective of those listing between 1000 and 2000 words, while mid-frequency words are indicative of those with a frequency between 3,000 and 9,000 words. Those of frequency 10,000 and above are considered low-frequency words. In this test, participants usually read underlined words given in a short sentence and they should circle the one that most closely matches their meaning.

As with previous research on the same topic (Al-Nujaidi, 2003; Alahmadi et al., 2018), This research used two distinct frequency levels: high-frequency words and middle-frequency words, with a special emphasis on families that fall between 1000 and 4000 frequency words. These 4 families make 40 questions. According to Nation (2012), these word families are suitable for testing non-native speakers of non-European origins.

3.6.3 Reader Self-Perception Scale (RSPS)

As mentioned in RQ4, self-efficacy would be taken as a mediating variable for the relationships between students reading strategies, vocabulary size and reading comprehension performance. Self- efficacy is an important motivational factor in helping students to complete the learning tasks with the best performance (Henk and

Melnick, 1995). Henk and Melnick (1995, p. 472) proposed a scale that measures the level of readers' self-efficacy. The scale contains 33 items which indicate the four sources: (1) Progress; (2) Observational Comparison; (3) Social Feedback; and (4) Psychological State (see Appendix D).

The progress (PR) source refers to the reader's perception of the difference between the present and past reading performances. The Observational Comparison (OC) is a source that helps readers to compare their reading performance with other classmates. For the social feedback source of self-efficacy, readers are motivated to read depending on outside social resources, such as their teachers, parents, or other classmates in the same learning environment. The last source of self-efficacy is the readers' Psychological state (PS). This source reflects the readers' feelings, impressions, and own opinions about their reading experience. Henk and Melnick (1995) specified a number of items to represent each source with a total of 33 items. These items work simultaneously to assist students consciously select the most appropriate reading strategy while attempting to comprehend a text.

The distribution of items under each source of self-efficacy is as in the following:

- Social feedback (2, 3, 7, 9, 12, 17, 30, 31, 33)
- Progress (10, 13, 15, 18, 19, 23, 24, 27, 28)
- Physiological state (5, 8, 16, 21, 25, 26, 29, 32)
- Observational Comparison (4, 6, 11, 14, 20, 22)

Participants had to rate how likely they would agree or disagree with 33 statements describing their self-efficacy. This was made on a 5-point Likert scale (1= Strongly disagree ~ 5 Strongly agree). Therefore, higher mean scores on the test would mean higher levels of self-efficacy among Iraqi secondary school EFL students.

3.6.4 Reading Comprehension Test

This test is to examine students' reading comprehension performance as required by Research Questions 3 and 4. It is a standardized test adopted from the Common European Framework of Reference for Languages (CEFR). CEFR describes proficiency in language on a six-point Likert scale, where A1 refers to beginners,

whereas C2 is for those who have mastered the English language. Our study selected a RCT from the B1 level, because it is a language test with content designed for school-aged students. Therefore, the readability level is accessible to learners with an intermediate understanding of English.

The test comprised two parts (see Appendix E). The first part consisted of five short informational texts (e.g., notices, advertisments, emails, and labels), whereas the second part consisted of a 360-word long descriptive text, which focuses on the hobby and experiences of an artist. The test had a total of 10 comprehension questions. Each question offered three/four multiple-choice answers, from which the participants should select the option that best answers the question. Thus, the maximum possible score was 10, and the minimum was 0.

Although the reading comprehension test was administered as a single instrument, it incorporated multiple task types that imposed different cognitive and metacognitive demands on learners. The short authentic texts required readers to apply problem-solving strategies such as inferencing, selective attention, and monitoring comprehension, while the extended continuous passage required global strategies including integrating information across sentences, identifying main ideas, evaluating author intention, and regulating comprehension. These varied task demands created sufficient opportunities for learners to employ a range of cognitive, metacognitive, and support strategies during text processing (See Table 3.3 below).

Table 3.3
Reading Tasks and Potential Strategy Activation

Reading Part	**Text Characteristics**	**Cognitive Demands**	**Likely Strategy Use (SORS)**
Part 1: Short Functional Texts	- Short authentic notices/messages - Non-linear, context-dependent - Pragmatic meaning focus	- Rapid inferencing - Identifying purpose/ intent - - Selective information processing	- Global: setting purpose, previewing. - Problem-solving: guessing meaning, rereading, adjusting speed. - Support: mental translation, focusing on key words
Part 2: Extended Passage	- Linear narrative/ informational text - Connected ideas across paragraphs - Explicit + implicit meaning	- Integrating information - Identifying main ideas - Monitoring comprehension - Interpreting context	- Global: predicting, using prior knowledge, identifying main ideas. - Problem-solving: contextual guessing, slowing down, checking understanding. - Support: rereading, dividing text into parts, linking questions to text

Consequently, the design of the reading tasks provided an adequate basis for examining multiply strategy use in reading.

3.6.5 Focus Group Discussion

A focus-group discussion session was conducted to explore Iraqi secondary school EFL learners' reading comprehension challenges for Research Question 5 (see Appendix F). The students' mother language (i.e., Arabic) served as the medium for conducting the focus-group discussion inside the classroom setting. The researchers selected this approach to allow participants to freely share their thoughts and experiences without the hindrance of language barriers that could obstruct meaningful dialogue.

The main purpose of conducting the focus-group discussion was to enhance the quantitative findings of the study. Quantitative data reveals details about reading strategies and vocabulary size but fails to explain the root causes of students' reading comprehension difficulties. The focus-group discussion aimed to connect quantitative findings with qualitative insights by investigating students' self-reported reading challenges and their knowledge of reading strategies. The study sought to obtain qualitative data from open-ended discussions to enable educators to create customized materials for student reading difficulties.

The focus-group discussion followed a semi-structured format which permitted flexible responses but ensured core questions remained consistent. The researcher led the session that lasted 45-60 minutes while making sure every participant could contribute their thoughts. After obtaining permission from participants the researcher audio-recorded the focus-group discussion and later transcribed it for thematic analysis. The discussion covered the following key areas:

1. Vocabulary Size: The students were required to state if they thought their vocabulary size was low and provide reasons for their answers. The question sought to explore students' self-assessment about their vocabulary learning and its effects on understanding reading materials.
2. Overcoming Vocabulary Challenges: Participants shared their personal techniques for learning new vocabulary words. This question aimed to

distinguish between helpful and unhelpful student vocabulary learning methods while collecting successful vocabulary acquisition technique examples.

3. Reading Comprehension Difficulties: The discussions asked students about their reading comprehension difficulties and requested explanations for these challenges. The question helped identify precise reading barriers including insufficient background knowledge and troubles with unfamiliar vocabulary or complex sentence structures.
4. Strategies for Overcoming Reading Difficulties: The participants shared their methods of addressing reading comprehension problems by supplying examples from real life. The question focused on identifying reading strategies students report as beneficial or ineffective.
5. Awareness and Instruction on Reading Strategies: The discussions inquired about whether students had undergone formal training in reading comprehension methods. Positive respondents explained their instructional experiences whereas negative respondents provided reasons for the absence of such educational input.
6. General Suggestions: The opportunity arose for students to propose broad enhancements for teaching and assistance in reading comprehension.

The focus-group discussion took place in Arabic so the participants' responses could be translated into English for reporting purposes. The translation process had to be implemented to align with the thesis structure and make the content available to a broader group of academics. The use of Arabic during the discussion enabled participants to communicate more freely while eliminating language obstacles which could potentially diminish response depth.

All reported participant quotes in this thesis have been translated from Arabic. Appendix F contains the original Arabic responses to enable readers to cross-reference these with their English translations. The English translations received minor grammatical and syntactical changes to enhance readability but preserved participants' original meanings.

The researcher also conducted a thematic analysis of the qualitative data collected from focus-group discussions. Core themes were identified by examining common patterns found within the students' responses. The main themes identified from student responses provided crucial understanding of reading comprehension

challenges and guided suggestions for teaching enhancements. Further information about the procedure taken to analyse the qualitative data are discussed in the following sections.

3.7 Criteria for Instrument Selection

The choice of the instruments was determined by both theoretical and practical concerns to best match the study purposes and the research questions. The specific characteristics of the instruments that determined their inclusion in this study are related to their validity, reliability, and past empirical evidence on EFL learners' performance, especially those with the Iraqi secondary school level of English proficiency. In particular, the three key criteria in making these choices include (1) alignment to the construct being measured (theory-based), (2) previous evidence on their empirical use, and (3) contextual fit in terms of language and culture. Rationales for each instrument selected for the present study are described in the following subsections.

3.7.1 Survey of Reading Strategies (SORS)

The SORS (Mokhtari & Sheorey, 2002) was adopted in the current study for the following reasons. The reading strategy instrument addresses RQ1 directly by tapping into the EFL learners' most frequently used reading strategies in Iraqi context. The instrument is theoretically based on the metacognitive models of reading (Baker & Brown, 1984; Grabe & Stoller, 2019). The scale operationalizes three commonly identified constructs within strategic reading literature: global, problem-solving, and support strategies. These three subdomains reflect the most common theoretical demarcation found in the taxonomy of reading strategies as discussed in the literature review. Cumulatively, they cover the full spectrum of planning, monitoring, and repairing comprehension to provide a multidimensional representation of strategic behavior across the four skills, as well as its applicability in EFL contexts.

SORS was the preferred option for a number of reasons. First, the instrument has been validated extensively in ESL/EFL contexts across a range of settings and populations, showing high internal reliability (Cronbach's α = .85–.92) and cross-cultural generalizability (Sheorey & Baboczky, 2008; L. S. Teng, 2022). SORS has been frequently used in published studies of metacognitive awareness and strategy use

among secondary and tertiary learners, so it will allow for direct comparisons and replication.

Second, with respect to instrument features, SORS was designed and adapted for EFL populations, whereas earlier instruments such as the Metacognitive Awareness of Reading Strategies Inventory ((MARSI; Mokhtari & Reichard, 2002) or the Think-Aloud Protocols in L1 research (Pressley & Afflerbach, 2012) were not. MARSI focuses on metacognition in academic reading for fluent readers, and is therefore more challenging to comprehend and contextual assumptions made in SORS are much more appropriate for non-native English users with intermediate language proficiency. Other instruments such as the Reading Strategy Questionnaire (O'malley, 1990) or the Motivated Strategies for Learning Questionnaire (Pintrich, 1991) capture a wider array of learning constructs (motivation, self-regulation, learning strategies) but do not focus on the core reading processes that are most relevant to the present study. SORS therefore provided a context-sensitive, empirically validated, and linguistically accessible instrument that can be reliably and validly administered to Iraqi EFL learners.

Finally, SORS is also consistent with the key constructs in the conceptual model guiding the present study, as it was one of the few reading strategy instruments that directly tap into the use of cognitive and metacognitive strategies. Because SORS reports were itemized across these three subdomains, it also allowed for a more systematic and nuanced exploration of the ways in which the self-efficacy scores corresponded to the reported strategy use among the sample. Taken together, the shared focus on theoretical constructs, alignment in methodological design, and compatibility with the core features of the study population all argue for the choice of SORS as the most appropriate and validated instrument.

3.7.2 Vocabulary Size Test (VST)

The Vocabulary Size Test (Beglar & Nation, 2007) was chosen to assess participants' receptive written vocabulary knowledge. It has been widely used in the vocabulary literature on account of its psychometric soundness, theoretical basis in frequency-based lexical coverage, and cross-linguistic validity (Nation, 2012; Webb & Nation, 2017).

The rationale behind choosing the VST was that it is the only tool that is relevant to the second research question that attempts to identify the learners' vocabulary size

and its association with self-efficacy and comprehension. Additionally, given that the VST probes 1000 to 4000 frequency-level word families, it was considered appropriate to the lexicon of the secondary school EFL learners. Furthermore, the VST is easily scored and permits to compare the scores with international standards (Nation, 2012). This objective and standardized procedure would render the external validity of this study's outcomes more reliable.

As noted by Webb and Nation (2017), the VST by Beglar and Nation (2007) was selected because it is a valid and reliable estimate of receptive vocabulary size. This tool measures a well-defined set of EFL learners' vocabulary knowledge (lexical variable) that may account for reading comprehension (language skill). It has been commonly used in second language research and is appropriate for EFL learners from a non-European linguistic background because it is developed based on word frequency and families' control, which ensures no cultural bias in the content (Milton & Treffers-Daller, 2013; Nation, 1997).

In contrast to self-assessed vocabulary knowledge scales, the VST demands participants to deduce word meaning from context and identify a word's right definition, which provides an objective, standardized, and well-defined assessment. This test is also adaptable for all proficiency levels, which makes it suitable for secondary-school learners in Iraq with wide-ranging vocabulary knowledge due to the uneven exposure to language input. This instrument is sensitive to their vocabulary range because it includes high- and mid-frequency words, which is the range most relevant to reading comprehension tasks at the B1 proficiency level.

3.7.3 Reader Self-Perception Scale (RSPS)

The Reader Self-Perception Scale (Henk & Melnick, 1995) was selected as an instrument to measure students' self-efficacy in reading. It is a self-report questionnaire that is closely related to the mediating variable in Research Question 4 and draws on Bandura's (1997) social cognitive theory which positions self-efficacy as a driving force behind academic motivation and achievement. It has been validated across multiple contexts (Henk et al., 2002; McKenna & Stahl, 2020) and has demonstrated high internal reliability ($\alpha > .90$).

The instrument was chosen over more general self-efficacy scales (e.g., Schwarzer & Jerusalem, 1995) because it measures reading-related self-beliefs, a more

specific form of confidence, in four separate subdomains: progress, observational comparison, social feedback, and psychological state, which would provide a more multidimensional view of students' self-perception as readers. The RSPS's straightforward language and Likert-based format were also considered when selecting it for the current EFL population.

3.7.4 Reading Comprehension Test (RCT)

The RCT was adopted from the Common European Framework of Reference for Languages (CEFR) due to its standardization, its international recognition and validity, and its congruence with school-based EFL pedagogy (Little, 2006; Nikolaeva, 2019). The CEFR assessments are considered to offer reliable standards of proficiency, and the B1-level test of reading was seen as appropriate for the target population of Iraqi intermediate-level secondary school students.

The format of the test itself, consisting of both short functional texts and a longer descriptive text, represents reflection of real-life reading tasks (e.g., emails, notices, articles, etc.), as well as a coverage of different comprehension processes (i.e., literal, inferential, and evaluative) that align with the research on effective assessment of L2 reading (Alderson, 2000; Grabe & Stoller, 2019). RCT Part 1 included short authentic texts that were written in the form of real-world messages or notices and which required readers to draw inferences, interpret the communicative intent, and relate the context and the purpose of the text. The process of local inferencing in the texts is believed to target primarily lexical access, contextual inferencing, and pragmatic understanding of the texts (Koda, 2005).

Table 3.4
Rasch Item Statistics for the Reading Comprehension Test (N = 178)

Item	Difficulty (b)	SE	MNSQ	Std. MNSQ	UMSQ	Std. UMSQ
Compre1	−0.10	0.19	0.88	−1.60	0.74	−2.32
Compre2	−0.90	0.21	1.24	2.07	1.04	0.25
Compre3	−0.64	0.20	1.06	0.66	0.90	−0.53
Compre4	0.93	0.19	0.81	−2.64	0.73	−2.67
Compre5	0.57	0.19	1.27	3.50	1.46	3.99

Item	Difficulty (b)	SE	MNSQ	Std. MNSQ	UMSQ	Std. UMSQ
Compre6	−0.10	0.22	0.85	−1.32	0.75	−1.25
Compre7	−0.95	0.22	0.69	−3.07	0.51	−2.92
Compre8	0.57	0.19	0.87	−1.96	0.80	−2.04
Compre9	1.11	0.19	1.14	1.60	1.05	0.48
Compre10	0.40	0.19	1.29	3.84	1.31	2.83

As evident in Table 3.4, the item difficulties ranged from −0.95 logits (item Compre7) to 1.11 logits (item Compre9). This wide spread of item difficulties suggests that the test has a good mix of easy and difficult items. As a rule of thumb, Bond and Fox (2013) suggest that tests should have items spanning a range of approximately −2 and +2 logits to provide a reasonable distribution of item difficulties for participants with a range of ability levels. In the current study, the spread of −0.95 to 1.11 suggests that the test appropriately covered a range of item difficulties.

Infit and outfit mean-square (MNSQ) statistics were used to examine each item's fit to the Rasch model. All MNSQ values fell between 0.69 and 1.29, which is within the acceptable range of 0.7 and 1.3 suggested by Linacre (2002). It suggests that all items fit the Rasch model and make the expected contributions to the measurement of the target construct. No items were misfitting the model. The results also demonstrate that the test operated as a unidimensional measure of reading comprehension (Boone et al., 2014).

The Scale Quality Statistics generated by the analysis included the following:

- Item reliability = 0.93
- Item separation index = 3.77
- Number of item strata = 5.36

These statistics suggest that there was a strong hierarchy of item difficulties, meaning that the order of the items by difficulty was not likely to change if the test were administered to a similar sample in the future (Wright & Masters, 1982). Person reliability = 0.48 and person separation index = 0.95 reflected stable differentiation between the participants in their levels of reading proficiency.

The study also conducted a Principal Components Analysis of standardized residuals to further test the assumption of one-dimensionality. This test examined the dimensionality of the measure in terms of the items, where a high first contrast eigenvalue suggested that the test measures more than one latent construct. The first contrast eigenvalue for the test was 2.00, which is well below the cutoff of 3.0 suggested by Ludlow and Haley (1995). This finding suggests that the test is unidimensional, providing further evidence that the items are tapping into the same underlying construct, which in this case is reading comprehension.

Overall, the results of the Rasch analysis suggest that the test of reading comprehension has strong psychometric properties. The item difficulty values ranged from −0.95 to +1.11 logits, which suggests an adequate spread of items across the ability spectrum and all items had acceptable fit statistics (MNSQ = 0.69–1.29). The item reliability index (0.93) and item separation index (3.77) indicated a stable hierarchy of item difficulty (Bond & Fox, 2013). These results lend empirical evidence that the instrument performed as a psychometrically sound and a unidimensional measure of reading comprehension.

3.7.5 Focus Group Discussion (FGD)

The FGD was the qualitative research method employed in this study. It was used as part of a mixed-methods design to triangulate with the quantitative instruments by providing an in-depth perspective on the learners' reading and strategy awareness. Focus group research is suitable for eliciting students' or learners' thoughts, perceptions, beliefs, and challenges regarding a range of issues in a collaborative and socially interactive environment (Carey & Asbury, 2016; Creswell & Clark, 2017).

In contrast to surveys, FGDs can be used to gain in-depth and open-ended responses that enable participants to negotiate meaning with one another and produce contextualized and thick descriptions of their personal experiences. Arabic, the participants' L1, was used as the medium of communication to eliminate linguistic constraints that might have inhibited their contributions. As a result, the FGD was seen as suitable for the study because of its appropriateness for identifying the main cause of the reading comprehension problems, and because the results from the SORS and the quantitative instruments could be triangulated to strengthen the validity of the study and to provide a basis for interpretation.

3.8 Validity and Reliability of Research Instruments

Before conducting a large-scale study, it is considered important to ascertain that the instruments are valid and reliable. Creswell (2009) specifies that an instrument is valid if the same instrument 'has been used in other studies and reported on in the literature. An instrument is valid if it measures what it is supposed to measure'. Therefore, if this instrument was used by other studies, especially if the same context was investigated in those studies, and if the instrument was used within the same context of the present study, then the instrument is likely to be valid and measure the concept thought to be measured with this instrument. The present study aims to use four instruments:

a) Reading Strategy Questionnaire (the RSQ, Mokhtari and Sheorey (2002))
b) Vocabulary Size Test (the VST, Beglar and Nation (2013))
c) Reader Self-Perception Scale (RSPS, Henk and Melnick (1995))
d) Reading comprehension test (RCT, CEFR Cambridge)

These tools were endorsed in some studies in the literature (Alzahrani et al., 2021; Fathi & Afzali, 2020; Ma & Lin, 2015; Rahoomi et al., 2019; Sofyan & Jayanti, 2019), hence they are deemed appropriate for exploring the area of EFL reading comprehension among Iraqi secondary school learners. The RSQ was used in several investigations on the reading strategies among Arab and Iraqi EFL learners (Al Roomy & Alhawsawi, 2019; Dehham et al., 2022; Rahoomi et al., 2019). Likewise, other work utilised the VST to serve as an estimate of the vocabulary size of EFL learners (Al-Shujairi et al., 2019; Alahmad, 2020; Alahmadi et al., 2018; Alzahrani et al., 2021; Daaboul & Nimehchisalem, 2017; Hirsh & Nation, 1992), and the RSPS to explore the level of students' reading self-efficacy (Apriliyani & Usuludin, 2023; Delgado-Vásquez et al., 2022; Jiang, 2023; Muche et al., 2024; Okyar, 2021).

The researcher of the study also carried out a thorough examination of the tools used with the aim of ensuring that they had achieved required levels of face and content validity and reliability. In order to ascertain that the questionnaires had face validity and were devoid of issues associated with item comprehensibility for the study's participants, the researcher distributed the questionnaires and tests among 32 Iraqi secondary school students who had similar characteristics to the ones involved in the

main study. Participants were instructed about how they should respond to the task and whether they had feedback or suggestions for the overall quality and clarity of the instruments. After completing the testing session, all responses were collected.

The feedback obtained from the pilot participants indicated that the items and instructions were generally clear and that the participants can comprehend the intended meanings of the statements. Nonetheless, certain requests were made relating to the clarity of instructions and the format of the questionnaire. All participants' responses to the questionnaires and reading test were analyzed using IBM SPSS. Measures of the internal consistency (Cronbach's alpha) were used to test the reliability of the questionnaires, whereas the split-half reliability test to measure the internal consistency of VST and RCT. This latter reliability test was conducted by splitting the concerned test into halves and correlating examinees' scores on the two halves of the test (Field, 2018).

The results of the reliability tests for the RSQ and RSPS are presented in Table 3.5 below. The overall score of the measure of the internal reliability analysis (Cronbach's α) was 0.713 for the RSQ and .759 for the RSPS, which is greater than the commonly-accepted cut-off point value 0.70, and therefore the two questionnaires have met the assumptions of reliability.

Table 3.5
Reliability Test Results for the RSQ and RSPS

Questionnaire	**Items**	**Cronbach's Alpha**
- Reading Strategy Questionnaire (RSQ)	30	.713
- Reader Self-Perception Scale (RSPS)	33	.759

Since the VST and RCT are standardised tests and the purpose of standardization is to make sure that the scores reliably indicate the abilities or skills being measured are generalizable and replicable (Good, 2008), a split-half reliability test using the Spearman-Brown correlation was used to test the reliability of the VST and RCT. The split-half reliability is a measure of internal consistency (Field, 2018). According to the correlation coefficients obtained from the Spearman-Brown correlation for the VST (r=.817) and RCT (r=.852), the two tests were considered reliable in the context of the present study (Chakrabartty, 2013). According to

Guilford's Rule of Thumb, this study has a 'high' and positive relationship between the items of the test (all $r > .8$), and therefore evidence of reliability.

With regards to the FGDs, several validation techniques were also used to ensure the trustworthiness and credibility of the qualitative data. Member checking was used by returning the interpreted themes and excerpts to the participants. The participants agreed that their original statements had been accurately reflected and some added new supporting excerpts to further elaborate on their points of view, which were incorporated into the analysis.

Triangulation was achieved by corroborating the focus group findings with the quantitative sources of data of the study, students' questionnaire responses, and the results of previous studies on vocabulary and reading comprehension difficulties. This confirmed the consistency of the emerging themes, including limited vocabulary, lack of interest, insufficient practice, inadequate support, and ineffective teaching approaches.

All of the FGDs were audio-recorded and then transcribed verbatim, and the data were carefully organized. Any additional extended excerpts added by the participants during member checking were clearly marked. Data were analyzed step by step to minimize bias. For example, in addition to identifying initial ideas, points were then grouped into similar categories before being further refined into the main themes.

Peer review was also used to ensure that the interpretations of the data were accurate and trustworthy. These techniques helped to establish the credibility, dependability, and confirmability of the study's qualitative findings.

3.9 Data Collection Procedures

Data was gathered after obtaining official approvals from the Ethics Committee at UiTM and the corresponding local schools in Iraq. Both quantitative and qualitative data were gathered and hence data collection comprised two stages. They are stated and discussed in the following subsections.

Stage 1: Questionnaire and Test Administration

This was the first stage in which quantitative data collection occurred. During this stage, the researcher gathered data about participants' reading strategies, vocabulary size, reading self-efficacy, and reading comprehension performance. Three

instruments were used for this purpose: the RSQ, RSPS, VST, RCT. The researcher visited local secondary schools in Iraq after making official arrangements with the respective administrations. As a standard procedure, the researcher first introduced himself to the classroom and explained the purpose of the questionnaire and other tests and how they should be completed. The participants were asked to fill in the questionnaire and complete the tests on two occasions. In one class time (45 minutes), they were asked to complete the RSQ, VST, and RSPS, whereas the RCT in another class time. They were informed that their responses would be used for research purposes only and hence would be kept in strict confidentiality. After data collection, all responses were keyed in IBM SPSS for analysis.

Stage 2: Focus Group Discussion

The second stage of data collection required Iraqi secondary school EFL students to take part in focus group discussions. The students who participated in the focus group discussions came from the larger group of participants who completed the quantitative data collection phase. The session took place in Arabic since the students were non-native English speakers to help them feel comfortable. Participants spent approximately 40 minutes during the focus group discussion to explore reading strategies and vocabulary knowledge together with perceived comprehension barriers.

At this point, the researcher selected specific participants who completed quantitative surveys to discuss their reading comprehension experiences. The session used a structured approach which allowed participants to freely explore their thoughts but kept them focused on relevant topics. The researcher maintained control throughout the conversation to ensure equal participation by all members and to stop dominant voices from dominating the discussion.

Participants were able to express their problems more fully during discussions because Arabic eliminated language barriers that might have limited their responses. The discussion space became a secure and encouraging environment that enabled students to exchange ideas freely without concern for judgment.

After the discussions, the researcher started with transcribing audio recordings from the discussion and then analyzed the qualitative data using thematic analysis. Through analysis repeated patterns and themes emerged that clarified students' specific reading comprehension issues. Through combining qualitative research findings with

quantitative data analysis. the study achieved comprehensive insight into the reading comprehension challenges faced by Iraqi secondary school EFL students.

Essential qualitative insights from the focus group discussions required further examination of reading comprehension barriers faced by Iraqi secondary school EFL students because these insights extended beyond the quantitative data collection results. Through the combined use of qualitative and quantitative data, the study accomplished a thorough understanding of reading challenges faced by students and delivered essential information to educators and curriculum developers who aim to improve reading instruction in English as a Foreign Language settings.

3.10 Data Analysis

The data gathered from the participants was analyzed using IBM SPSS. A brief description of the specific methods of analysis in relation to each research question is given in Table 3.6 below.

Table 3.6
Data Analysis Methods

RQ	Research Question	Method of Analysis
1.	What are the types of reading comprehension strategies used by Iraqi secondary school EFL learners?	Descriptive statistics
2.	What is the Iraqi secondary school EFL learners' vocabulary size?	Descriptive statistics
3.	What is the relationship between students' reading strategies, vocabulary size, and reading comprehension	Multiple Linear Regression
4.	To what extent can self-efficacy mediate the relationship between reading strategies, vocabulary size, and reading comprehension?	PROCESS Macro (extension installed on SPSS to test mediation effects)
5.	What are the difficulties that Iraqi secondary school EFL learners face in reading comprehension?	Manual coding and thematic analysis (qualitative)

As given in Table 3.6, the study employed descriptive statistical analyses to examine the frequency of reading strategies used in reading comprehension (RQ1) and to provide an estimate of their vocabulary size as measured by a vocabulary size test (RQ2). Multiple linear regression analyses were conducted to assess the relationship

between participants' reading strategies, vocabulary size, and reading comprehension (RQ3), whereas a mediation test using PROCESS Macro was used to examine the mediation role of reading self-efficacy in the relationship between reading strategies, vocabulary size, and reading comprehension (RQ4).

The study used focus group discussions to gather detailed information about participants' reading difficulties in response to research question RQ5. The researcher first transcribed recorded discussions before identifying primary themes and structuring them into secondary sub-themes. Thematic analysis functioned as the method used to detect and document patterns present in qualitative data. The study followed a structured process which established research rigor and validated outcomes. The researcher performed the analysis by hand because the type of data being studied did not necessitate the use of computational tools.

The initial step of thematic analysis required the researcher to become familiar with the data by repeatedly reading transcripts to understand overarching themes and identify patterns and insights. The next step in the analysis included coding which systematically applied short labels known as "codes" to meaningful data segments to identify key research concepts. The researcher initially created codes based on observed data patterns and then improved these codes through repeated cycles of refinement.

The study grouped related descriptive codes into broader themes to identify patterns and concepts appearing consistently in participant responses. The researcher had to perform extensive analysis to validate that each theme accurately reflected the data while keeping each theme separate from the others. Through examination and refinement of emerging themes, the researcher produced a narrative that faithfully reflected the participants' perspectives. Themes with insufficient evidence underwent re-assessment and potential merging with similar themes before elimination.

The completed themes received exact definitions and unique names along with explanations that showed their relevance to the research question. Participants' quotations illustrated every theme while confirming that their voices appeared correctly in the analysis results. The researcher then discussed the data by integrating the established themes with previous reports and theoretical models in the literature.

3.11 Ethical Considerations

The design and execution of the study on Iraqi secondary school EFL learners' reading comprehension prioritized ethical considerations. The study incorporated ethical protections throughout the study to maintain participants' rights, privacy, and well-being due to its mixed-methods approach. The researcher explained all study objectives, significance, and procedures to prospective participants before collecting the data. The researcher implemented this process to promote transparency and enable participants to make an informed decision about their study involvement. All participants gave voluntary informed consent to participate in the study. Participants also received clear information stating that their involvement was voluntary and that they could leave the study at any point without needing to give a reason or facing negative outcomes.

The study also maintained strict confidentiality and anonymity to safeguard personal information of participants. The survey responses collected during the quantitative phase of the study underwent anonymization to prevent identification of any individual participants. The qualitative phase of the study included focus group discussions under RQ5 which required additional steps to maintain participant anonymity. All participants' names were changed to pseudonyms during transcription of the recorded discussions to ensure their identities remained concealed. Direct quotations in the thesis maintained participant anonymity through consistent use of pseudonyms while accurately conveying their perspectives.

The UiTM ethics committee gave official approval for the study after they verified its compliance with institutional ethical standards. The study followed the ethical standards and protocols established by the university which are detailed in Appendix F. The data analysis and reporting methods were also governed by established ethical standards. The study presented results with full accuracy of participant responses but kept all personal information private. The qualitative data needed careful management because participants' discussions revealed personal details about their reading comprehension challenges. By adhering to strict ethical standards during participant experience sharing, the study established both credibility and integrity.

All in all, the study followed proper ethical guidelines to protect participant rights while keeping data confidential and ensuring research integrity. It also demonstrated ethical strength through informed consent procedures, data

anonymization techniques, and institutional approval while ensuring adherence to best practices.

3.12 Summary

This chapter has discussed the methodology employed for data collection and data analysis. It began with an overview of the research design and the quantitative and qualitative measures that were used to gather data on participants' reading strategies, vocabulary size, reading self-efficacy, and reading comprehension performance. The chapter also defined the study population and determined the sampling methods and sample size that were recruited in the study. Data collection comprised arranging visits to local secondary schools in Iraq. Participants were introduced to the purpose of the questionnaires and tests and were asked to complete the tasks while ensuring their responses were kept confidential. The qualitative focus group discussions were also discussed. The chapter concluded with a mention of all subsequent data analyses that were used for data analysis.

CHAPTER 4
DATA ANALYSIS AND FINDINGS

4.1 Introduction

This chapter presents the results and findings of the study. As mentioned in Chapter 1, this study had five research questions. First, the study aimed to investigate participants' specific reading strategies they use during reading comprehension (RQ 1) and the extent to which these students are likely to have adequate vocabulary knowledge as measured by a vocabulary size test given to the participants (RQ 2). Having investigated participants' reading strategies and vocabulary size, the study was set to investigate the relationship between reading strategies, vocabulary size, and reading comprehension performance, specifically how differences in reading strategies and level of vocabulary size might influence learners' reading comprehension performance (RQ 3).

Another main objective of the study was to examine participants' self-efficacy in reading comprehension and how likely self-efficacy mediates the relationship between reading strategies, vocabulary size and reading comprehension (RQ4). Mediation means that the relationship between X (independent variable) and Y (dependent variable) could be based on a mediating variable (Field, 2013; Hayes, 2017); therefore, this study aims to investigate whether the relationship between reading strategies, vocabulary size and reading comprehension is mediated by self-efficacy.

Additionally, the study sought to gather qualitative data using a focus group discussion to further explore the reading challenges faced by Iraqi secondary school EFL students and the possibility that these challenges can be remedied or overcome (RQ5). Therefore, the subsequent sections will involve an analysis of the data of the study and will present the results and findings for each research question.

4.2 Exploratory Data Analysis

Exploratory data analysis refers to the stage that comes before data analysis, where the researcher makes certain that the raw data is ready for statistical analysis. Usually before data analysis, the data is explored to make sure that it is free from any

adverse events, including missing data points or the presence of an outlier (Idreos et al., 2015; Zuur et al., 2010). For this purpose, the study conducted exploratory analyses. The participants whose mean score was above 3 SD were removed from the data. This procedure resulted in the removal of two participants (>1%) from a total of 180 participants. These two participants seemed not cooperative in their participation because they answered the questions of the questionnaires using a single-response type that made their overall mean score lie outside the data range of their peer participants.

The data was further explored to make sure that it met the assumptions of normality. Data normality is the characteristic of data being in a bell-shaped distribution, or in a symmetric pattern around the mean. Non-normal data can affect some statistical analyses (Field, 2013; Templeton, 2011). To examine data distribution, the study has conducted Skewness and Kurtosis analyses (see Table 4.1 below). The Skewness and Kurtosis tests are statistical measures that provide information about the shape and characteristics of data distribution (Field, 2018). Table 4.1 below presents the results of normality of the data.

Table 4.1
NormalityResults of the data (N = 178)

	M	**Skewness**	**Std. Error**	**Kurtosis**	**Std. Error**
Global strategy	3.55	-.251	.182	-.519	.362
Support strategy	3.63	-.178	.182	-.689	.362
Problem strategy	4.05	-.328	.182	-.295	.362
Social feedback	3.68	-.407	.182	-.874	.362
Progress	4.46	-1.315	.182	.686	.362
Psychological state	3.52	-.651	.182	-.180	.362
Observational comparison	3.59	-.198	.182	.056	.362
Reading performance	5.79	-.573	.182	-.247	.362
Vocabulary size	24.90	.504	.182	-.328	.362

As indicated in Table 4.1, the results of Skewness and Kurtosis for reading strategies (comprising global strategy, support strategy, problem-solving strategy), self-efficacy scales (comprising social feedback, progress, psychological state,

observational comparison), reading performance scores, and vocabulary size indicate that all data points fall within the range of -2 and +2, thus affirming the normal distribution of the data of study (Curran et al., 1996; Field, 2018; Tabachnick et al., 2013).

4.3 Demographic Analysis

This is where one provides statistical information about participants' gender, age, and language proficiency. For the purpose of providing background information about the characteristics of Iraqi secondary school EFL participants, the study analyzed participants' self-reported information, including their age, gender, and proficiency in L2 English. The mean score for participants' age was 18 (in years, M = 17.8, SD = .40). For gender, 49% of the participants (87 participants) were male and 51% were female (91 participants), as illustrated in Figure 4.1 below.

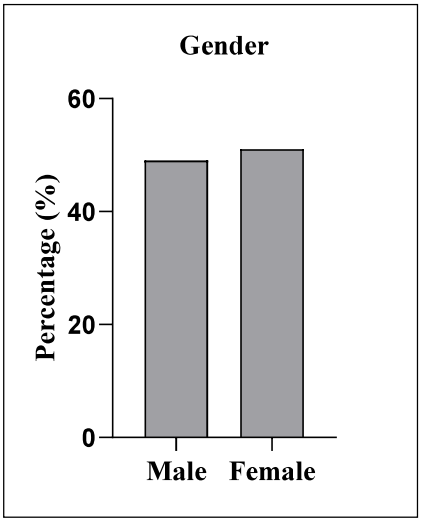


Figure 4.1 Percentage of Participants Per Gender

For language proficiency, all participants were asked to rate the level of their language proficiency relative to their peers in the same classroom based a 5-point Likert scale (Very poor = 1, Below average = 2, Average = 3, Above average = 4, Excellent = 5). The purpose of this task was to provide information about participants' proficiency in English, especially how students find themselves proficient relative to their classmates. Figure 4.2 below provides a summary of the results.

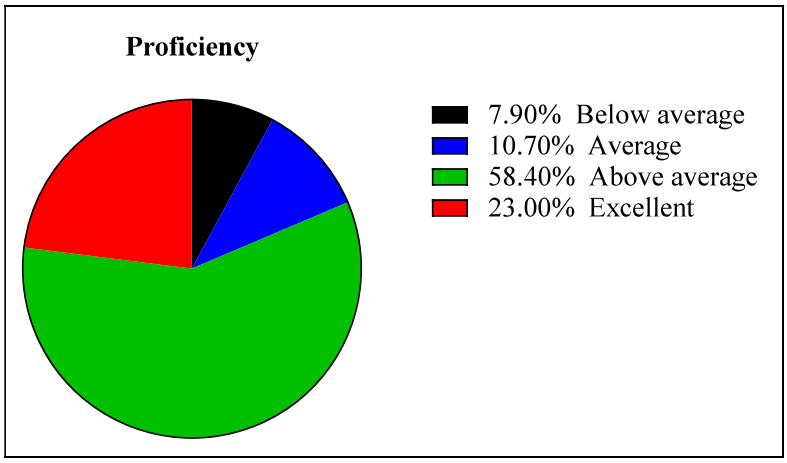


Figure 4.2 Participant's Perception Of English Proficiency Relative To Peers

According to the results of the analysis, 58% of the participants rated themselves as "above average" in English compared to other classmates, 23% of them as "excellent", 11% as "average", and 8% as "below average". Given these characteristics of participants, the following sections will provide an analysis of the main data of the study and present results and findings in relation to the research questions pre-determined earlier in this chapter

4.4 Reading Strategies Among Iraqi Secondary School EFL Learners

Reading strategies are cognitive and metacognitive processes that help readers understand and interpret what they read. According to the first research question in Chapter 1 (RQ1), the study aimed to determine the most and least frequent reading strategies that Iraqi EFL school students employ in reading comprehension. To answer this question, the study examined three types of reading strategies; namely, the global reading strategy, the support reading strategy, and the problem-solving reading strategy. To determine the frequency with which each reading strategy was used, descriptive statistics were performed to calculate the mean for each reading strategy. The results obtained from these descriptive analyses were reported in Table 4.2 and visually illustrated in Figure 4.3 below.

Table 4.2
Mean and Standard Deviation for Reading Strategies (N = 178)

	M	SD	Level
Global strategy	3.56	.435	Moderate
Problem solving strategy	4.05	.406	High
Support strategy	3.63	.622	Moderate

Note. Similarly to previous work (Ismail et al., 2023; Jamrus & Razali, 2021), the 5-point Likert scale was divided into three categories: Low (1 – 2.339), Moderate (2.34 – 3.669), High (3.67 – 5)

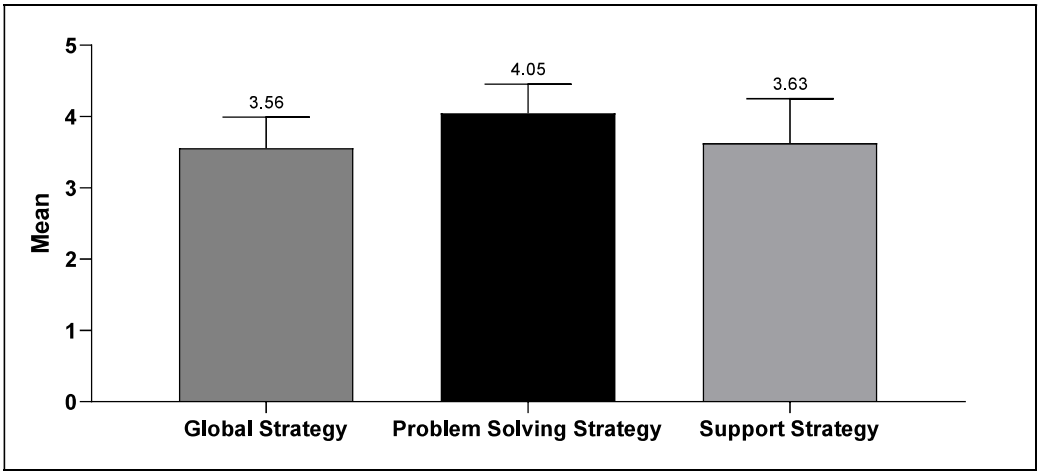


Figure 4.3 Mean Score For Each Reading Strategy Usage Among Iraqi Secondary School EFL Participants

According to the results in Table 4.2 above, it is obvious that Iraqi secondary school EFL learners rely more on the problem-solving reading strategy (*M*= 4.05, *SD*= 0.406) than the support reading strategy (*M*= 3.63, *SD*= 0.622) or global reading strategy (*M*= 3.56, *SD*= 0.435) in reading comprehension. However, to further understand the specific reading substrategies that were more dominant under each main reading strategy, the study conducted an item analysis. The results and findings for each reading strategy were presented below.

4.4.1 Global Reading Strategy

The global strategy is a general approach that readers use when they start reading the text These strategies rely on the cognition of the reader to take decisions about the reading text prior and while reading process. It involves a meta-cognitive reflection about why they are reading the text, an action that helps readers to develop a text-level

purpose as they interact with the text (Mokhtari & Sheorey, 2002; Soriano, 2019). This action requires readers to use their cognition by activating their background knowledge and noticing text elements such as text structure, length, organization, illustrations, and other clues in order to predict what the text is about (Mokhtari & Reichard, 2002). The study conducted an item analysis for the global reading strategy (13 items) and the results indicated that the Iraqi secondary school students used global reading strategies with varied frequencies, as shown in Table 4.3 below. The strategies that were more frequently used by the participants were listed first.

Table 4.3
Global Reading Strategies Used by Iraqi Secondary School EFL Students (N = 178)

Questionnaire Items	**Mean**	**SD**	**Level**
I think about whether the content of the text fits my reading purpose.	4.67	.703	High
I have a purpose in mind when I read.	4.38	1.083	High
When reading, I decide what to read closely and what to ignore.	4.31	1.135	High
I check my understanding when I come across new information.	3.81	1.093	High
I use typographical features like bold face and italics to identify key information.	3.79	1.248	High
I use tables, figures, and pictures in text to increase my understanding.	3.75	1.257	High
I take an overall view of the text to see what it is about before reading it.	3.74	1.602	High
I check to see if my guesses about the text are right or wrong.	3.59	1.355	Moderate
I review the text first by noting its characteristics like length and organization.	3.52	1.497	Moderate
I try to guess what the content of the text is about when I read.	3.24	1.488	Moderate
I use context clues to help me better understand what I am reading.	2.83	1.168	Moderate
I critically analyze and evaluate the information presented in the text.	2.56	1.332	Moderate
I think about what I know to help me understand what I read.	2.04	1.261	Moderate

According to the results in Table 4.3, the students recorded high levels of relying on their background knowledge for interpreting the reading text, especially by finding if it crosses with their universal knowledge (*M*= 4.67, *SD*= 0.703). The results also suggest that Iraqi secondary school students tend to adopt an objective when they interact with the reading text (*M*= 4.38, *SD*= 1.083), so that they sometimes ignore irrelevant details (*M*= 4.31, *SD*= 1.135). Following this, students seem to depend on their content schemata to interpret the new information (*M*= 3.81, *SD*= 1.093). They also, but to a lower extent, use typographical features like bold face and italics in the text to identify important information (*M*= 3.79, *SD*= 1.248). They also use tables and figures to classify some details (*M*= 3.75, *SD*= 1.257), and finally they take a quick view of the text to see what it is about before reading (*M*= 3.74, *SD*= 1.602).

However, at moderate levels, the students depend on 6 global reading strategies in reading comprehension. These strategies include guessing what the content of the text is about (*M*= 3.59, *SD*= 1.355), and whether or not the content of the text fits their reading purpose. Following this, students tend to review the text by noting its characteristics, such as its length and organization (*M*= 3.52, *SD*= 1.497), using context clues (*M*= 2.83, *SD*= 1.168), using the critical ability to analyze and evaluate the information presented in the text (*M*= 2.56, *SD*= 1.332), and using background knowledge to help them understand the content (*M*= 2.04, *SD*= 1.261).

These findings suggest that while Iraqi secondary school EFL students effectively use their background knowledge and focus on the main objectives of the text, they may benefit from developing their use of more comprehensive reading strategies. By improving their ability to engage with the text through prediction and structural analysis, they could enhance their overall reading comprehension and adaptability to various types of reading materials.

4.4.2 Problem-Solving Reading Strategy

The problem-solving reading strategies refer to the metacognitive strategies that take place within the reading stage. These strategies are considered complementary to the global strategies because they are used to sort out any arising problems or difficulties in understanding the textual information. In such cases, readers take the proper action that might sort out these problems, such as re-reading difficult text/sentences, slowing down or adjusting reading speed, reading aloud, ignoring difficult words/sentences,

analyzing the grammatical structure of a difficult sentence or replacing difficult words with similar meaning words (Mokhtari & Reichard, 2002).

The study conducted an item-based analysis by scoring participants' responses in the problem-solving reading strategy. This strategy has 8 items. On average, the results revealed that these problem-solving strategies were the most frequently used reading strategies by Iraqi secondary school EFL students (*M*= 4.05, *SD*= 0.406). The mean and standard deviation for each problem-solving reading strategy is presented in Table 4.4 below. They are ordered in terms of their frequency, from high to low.

Table 4.4
Problem-Solving Reading Strategies Used by Iraqi Secondary School EFL Students (N = 178)

Questionnaire Items	**Mean**	**SD**	**Level**
When text becomes difficult, I re-read it to increase my understanding.	4.57	.696	High
I try to get back on track when I lose concentration.	4.41	1.102	High
When text becomes difficult, I pay closer attention to what I am reading.	4.33	.821	High
I try to picture or visualize information to help remember what I read.	4.32	.917	High
When I read, I guess the meaning of unknown words or phrases.	4.10	1.196	High
I read slowly and carefully to make sure I understand what I am reading.	3.90	.912	High
I adjust my reading speed according to what I am reading.	3.45	1.289	Moderate
I stop from time to time and think about what I am reading.	3.29	1.325	Moderate

As presented in Table 4.4, the use of these strategies ranged between high and moderate levels of frequency among the participants. Six out of eight strategies were used at high levels. This includes the students re-reading the difficult parts of the text to facilitate comprehension (*M*= 4.57, *SD*= 0.696), trying to get back and track when losing concentration (*M*= 4.41, *SD*= 1.102), paying closer attention to the text when it becomes difficult (*M*= 4.33, *SD*= 0.821), visualizing information for remembering purposes (*M*= 4.32, *SD*= .917), guessing the meaning of unknown words or phrases (*M*=

4.10, *SD*= 1.196), and reading slowly to enhance their understanding (*M*= 3.90, *SD*= 0.912). The participants of the study consider these strategies very helpful in increasing their understanding of the reading text and overcoming their comprehension difficulties.

At moderate levels of use, the Iraqi students reported using two metacognitive strategies, namely, adjusting the reading pace (*M*= 3.45, *SD*= 1.289), and taking short pauses from time to time to process what they read (*M*= 3.29, *SD*= 1.325). These results suggest that Iraqi secondary school EFL students actively employ a range of problem-solving strategies to enhance their understanding of the reading text. The high frequency of these strategies indicates their importance in overcoming difficulties and improving overall reading proficiency for these EFL learners.

4.4.3 Support Strategy

The support reading strategy is a metacognitive strategy that is used to support readers' understanding of the text during the while-reading stage. During the while-reading stage, the support strategies entitle readers to use external resources or methods, such as translation, reading aloud, thinking about information in both English and Arabic, underlining or circling information, taking notes, using reference materials, or paraphrasing (Mokhtari & Reichard, 2002).

The participants' responses in the support reading strategy were analyzed by obtaining the mean and standard deviation for each strategy item. There were 9 strategy items. On average, the results indicated that Iraqi secondary school students depend on support reading strategies at high levels of frequency (*M*= 3.63, *SD*= 0.622). However, participants' utilization of these strategies has varied among the participants and therefore the results for each support reading strategy is given in Table 4.5 below.

Table 4.5
Support Reading Strategies Used by Iraqi Secondary School EFL Students (N = 178)

Questionnaire Items	Mean	SD	Level
I take notes while reading to help me understand what I read.	4.42	1.210	High
I paraphrase (restate ideas in my own words) to better understand what I read.	4.22	1.273	High
I underline or circle information in the text to help me remember it.	4.11	1.330	High

Questionnaire Items	Mean	SD	Level
When text becomes difficult, I read aloud to help me understand what I read.	3.97	1.445	High
I ask myself questions I like to have answered in the text.	3.35	1.585	Moderate
When reading, I think about information in both English and Arabic.	3.26	1.387	Moderate
I go back and forth in the text to find relationships among ideas in it.	3.26	1.362	Moderate
When reading, I translate from English into Arabic.	3.08	1.428	Moderate
I use reference materials (e.g., a dictionary) to help me understand what I read.	2.98	1.507	Moderate

According to the results in Table 4.5, the strategies that recorded high levels of frequency among Iraqi secondary school EFL learners included the reliance on taking notes while reading (*M*= 4.42, *SD*= 1.210), paraphrasing (*M*= 4.22, *SD*= 1.273), underlining or circling information (*M*= 4.11, *SD*= 1.330), and reading aloud (*M*= 3.97, *SD*= 1.445).

At a moderate level, the students seemed to rely on critical thinking and analysis (*M*= 3.35, *SD*= 1.585), processing information in both English and Arabic (*M*= 3.26, *SD*= 1.387), reviewing the text to find relationships between ideas (*M*= 3.26, *SD*= 1.362), translating from English to Arabic (*M*= 3.08, *SD*= 1.428), and using reference materials (e.g., dictionary) (*M*= 2.98, *SD*= 1.507).

The high-frequency use of strategies like note-taking, paraphrasing, and underlining suggests that Iraqi secondary school EFL learners are actively engaging with the text in a hands-on manner to reinforce their comprehension. These strategies are likely to indicate a proactive approach to reading among our participants, who prioritize understanding and memory retention.

4.5 Vocabulary Size Among Iraqi Secondary School EFL Students

Vocabulary size refers to the quantity of words necessary to comprehend and effectively use language. The second aim of the present study was to assess or provide an estimate of participants' vocabulary size. Typically, vocabulary size is gauged through assessments or tests designed to estimate the approximate number of words

present in an individual's lexicon (Beglar & Nation, 2013). In this investigation, the study employed Beglar and Nation's vocabulary size test to determine the vocabulary size among secondary school students in Iraq. This particular test consisted of 40 questions, resulting in a potential score range from 0 to 40. Through exploratory analyses, the study revealed an average participant score of 25 out of 40 (M = 24.90, SD = 6.77), with scores ranging from a minimum of 8 to a maximum of 40.

For a more comprehensive understanding of individual performance on the vocabulary test, the achievement scores were segmented into five specific groups: scores ranging from 1 to 8 were denoted as "Very low," 8.1 to 16 as "Low," 16 to 24 as "Intermediate," 24.1 to 32 as "High," and 32.1 to 40 as "Very high." The distribution of participants among these five categories is visually represented in Figure 4.4, depicting the percentage of participants within each respective category.

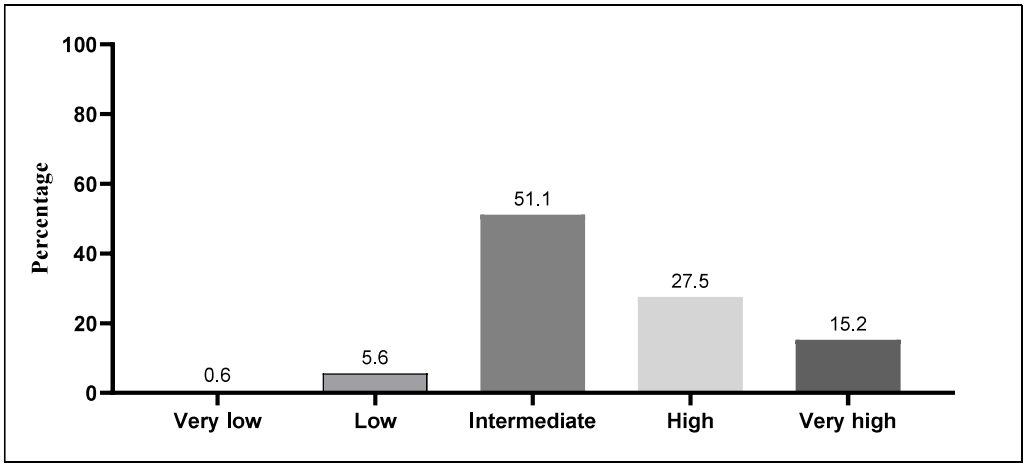


Figure 4.4 Level of Vocabulary Size of Iraqi Secondary School EFL Students

Notably, the results in Figure 4.4 demonstrated that a considerable proportion of the participants (51.1%) showcased an "intermediate" level of vocabulary size, with an additional 27.5% falling within the "high" category. Conversely, only a small proportion of participants exhibited a "very high" (15.2%), "low" (5.6%), or "very low" (1%) vocabulary size on the 1000-4000 vocabulary test. These results strongly suggest that a majority of the Iraqi secondary school students involved in this study possess limited lexical knowledge. This outcome might be anticipated due to English being considered a foreign language in Iraq and not regularly utilized in day-to-day communications.

The prevalence of “intermediate” levels among the participants suggests a modest level of familiarity with English vocabulary, while the lesser representation in the “low” and “very low” categories might indicate some foundational understanding or exposure to English language learning. Conversely, the limited presence in the “very high” category suggests a scarcity of participants with an extensive English vocabulary, reinforcing the notion that comprehensive English proficiency might be less common among these students in an Iraqi context.

4.6 Relationship Between Reading Strategies, Vocabulary Size, and Reading Comprehension

The third research question of the study (RQ3) was to investigate how students’ reading strategies and vocabulary size are linked to their reading comprehension, with a particular focus on understanding how individual variations in reading strategies and vocabulary size can influence reading comprehension outcomes. Nonetheless, before delving into this examination of the relationships among these factors, the study will initially assess students’ reading comprehension performance.

To reiterate, the reading comprehension test consisted of two tasks, each comprising 5 questions, thereby totaling 10 questions. Each correctly answered question was awarded 1 point, resulting in a maximum score of 10 and a minimum of 0. In order to evaluate students’ performance on the reading task, the study conducted analyses to determine the mean score. The results indicated that, on average, students attained a score of 6 out of 10 on the task ($M = 5.8$, $SD = 2.76$), suggesting that the reading comprehension test posed a relatively challenging assessment for the students. The distribution of students’ scores between 0 and 10 on the reading task is illustrated in Figure 4.5.

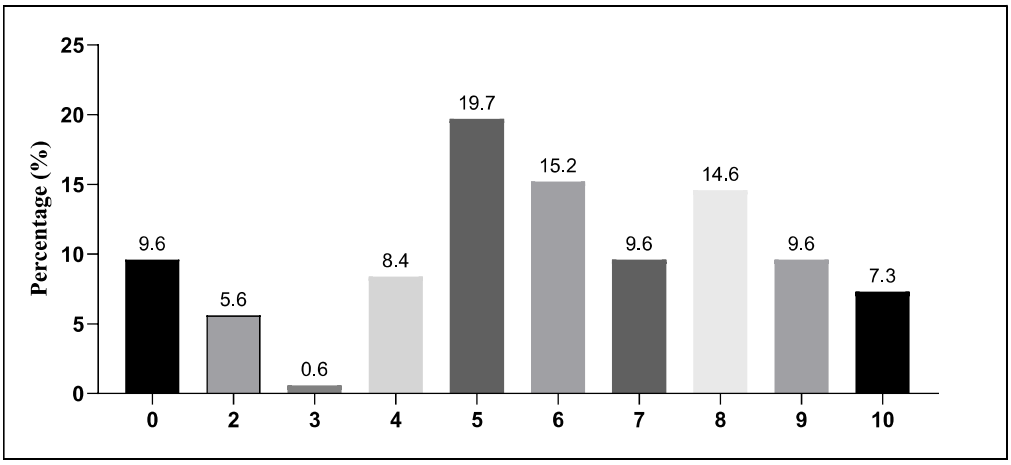


Figure 4.5 Percentage of Students Scoring Between 0 And 10 on the Reading Task

As visually illustrated in Figure 4.5, a significant portion of students, approximately 59% of the total participants, scored within the range of 5 to 8 out of 10 in the reading task. In contrast, roughly 24% of the participants obtained scores falling between 0 and 4, while around 17% achieved scores ranging from 9 to 10 on the test. Overall, these results illustrate a varied distribution of performance levels among the participants, indicating differing degrees of comprehension and mastery of the material assessed in the reading task.

In order to investigate the relationship between reading strategies, vocabulary size, and reading comprehension, the study employed a multiple linear regression analysis. The study utilized three reading strategies (global, problem-solving, supplementary strategy) and students' vocabulary size as independent variables, while reading comprehension as the dependent variable. All the variables were included in the model using a forced entry method and were subjected to a bootstrap robust procedure to enhance the statistical analysis.

Before conducting the analysis, the study ensured that the dataset met the assumptions of normality, linearity, multicollinearity, and homoscedasticity. Assessments of Tolerance and VIF statistics suggested an absence of multicollinearity issues, as indicated by the model's tolerance value surpassing .10 and the VIF value remaining below 10. The results of the regression analysis, presenting the relationship between reading strategies, vocabulary size, and reading comprehension, were presented in Table 4.6 below.

Table 4.6
Results of Multiple Regression Analysis Between Reading Strategies, Vocabulary Size, and Reading Comprehension (N = 177)

Predictor	B	SEa	t	β	Sigb
(Constant)	-7.214	(1.980)	-3.340		.002
Global strategy	-.360	(.399)	-.885	-.057	.385
Problem-solving strategy	1.914	(.429)	4.216	.281	.001
Support strategy	.228	(.277)	.764	.051	.418
Vocabulary size	.229	(.023)	9.224	.562	.001

Note. R^2 = .37; F-test = 25.323 (p = .001)
[a] Standard error bootstrapped (BCa)
[b] Significance tests bootstrapped (BCa)

Table 4.6 above reports the overall regression model was significant (F (4, 173) = 25.323, p = .001), and accounted 37% of the variance in the dependent variable (ie., the reading comprehension performance). The two predictor variables problem-solving strategy and vocabulary size are the only two independent variables that are statistically significant and positively correlated with the dependent variable, and the predictor vocabulary size records a higher beta value (t(173) = 9.22, p < .001, bootstrap estimates) than problem-solving strategy (t(173) = 4.22, p < .001, bootstrap estimates). This suggests that participants with higher vocabulary size and dependence on problem-solving reading strategy are more likely to perform better in the reading comprehension task. The results showed that both the global reading strategy and support reading strategy did not correlate with reading comprehension (p>.05), and therefore not contributing to better reading performance.

4.7 Self-Efficacy and Its Mediating Role in Reading Comprehension

The fourth research question of the study (RQ4) aims to investigate how participants' self-efficacy might function as a mediator in the relationship between reading strategies, vocabulary size, and reading comprehension. According to Henk and Melnick (1995, p. 472), self-efficacy in reading comprehension is reliant on four sources that contribute to self-efficacy. These include observing one's own progress, observational comparisons with classmates, social feedback, and one's psychological states.

Before examining the mediating role of self-efficacy in reading comprehension, the study will first assess and identify the level of self-efficacy among participants as a foundational step for the subsequent relationship analyses. Therefore, descriptive statistics were employed to calculate the mean and standard deviation for participants' responses. The results obtained from this descriptive analysis were presented in Table 4.7 and visually illustrated in Figure 4.6 below.

Table 4.7
Level of Self-Efficacy Among Iraqi Secondary School EFL Students (N = 178)

	Mean Score	**SD**	**Level**
Social Feedback (SF)	3.68	.671	High
Observing Own Progress (OP)	4.46	.595	High
Observational Comparison (OC)	3.59	.739	Moderate
Psychological State (PS)	3.52	.939	Moderate

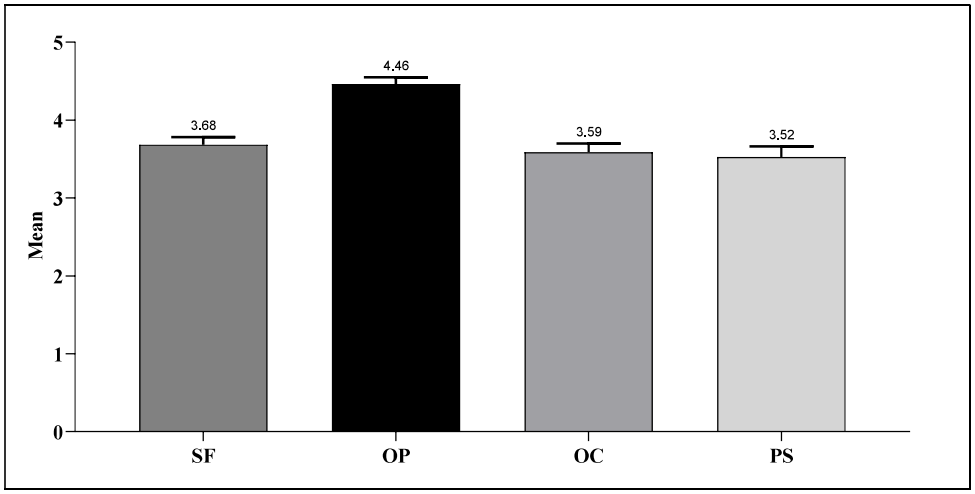


Figure 4.6 Mean of Self-Efficacy Types Among Iraqi EFL Learners

As illustrated in Figure 4.6, students' observing their own progress was the most frequent aspect of self-efficacy among participants (*M*= 4.46, *SD*= 0.595). This was followed by students relying on the social feedback received from their surrounding environment such as their family and teachers (*M*= 3.68, *SD*= 0.671). Social feedback plays a significant role in shaping and influencing an individual's self-efficacy. This feedback refers to the information, comments, or reactions received from others—such

as peers, mentors, teachers, family members, and colleagues—regarding one's abilities, skills, or performance in various tasks. This external input can greatly influence an individual's belief in their capabilities.

At a lower rate comes observational comparison, especially observing the difference between students' perception of reading performance and other classmates' performance (*M*= 3.59, *SD*= 0.739). Observational comparison refers to the process through which individuals evaluate and assess their own capabilities by observing and comparing themselves to others. Albert Bandura, the psychologist who introduced the concept of self-efficacy, highlighted the role of observational learning in the development of self-efficacy beliefs.

Finally, psychological state was the least source of participants' self-efficacy in reading (*M*= 3.52, *SD*= 0.939). Psychological state refers to their current mental and emotional condition in relation to their belief in their capabilities to perform a particular task or achieve a specific goal. Individuals with a positive psychological state are more likely to have higher self-efficacy, as their mental and emotional conditions align with confidence, enthusiasm, and a sense of control over their abilities.

In order to gain further insights of how Iraqi secondary school EFL students depend on self-efficacy in enhancing their reading comprehension, each type of self-efficacy was analysed and reported in the following subsections.

4.7.1 Social Feedback

This scale assesses the extent to which Iraqi secondary school EFL students were influenced by feedback received from teachers, peers, and family members. In general, the participants of the study exhibited a strong inclination toward positive social feedback (M = 3.68, SD = 0.671). When examining the individual components of this scale, it becomes evident that students' self-efficacy, shaped by social feedback, ranged from moderate to high levels. The detailed findings are presented in Table 4.8 below.

Table 4.8
Self-Efficacy Related to Social Feedback (N = 178)

Questionnaire Items	Mean	SD	Level
People in my family think I read pretty well.	4.20	.917	High
My teacher thinks that my reading is fine.	4.15	1.137	High
My classmates like to listen to me read.	3.72	.933	High
People in my family like to listen to me read.	3.67	1.318	High
Other students think I'm a good reader.	3.63	.718	Moderate
I can tell that my teacher likes to listen to me read.	3.56	1.046	Moderate
My teacher thinks I am a good reader.	3.56	1.099	Moderate
People in my family think I am a good reader.	3.53	1.131	Moderate
My classmates think that I read pretty well.	3.13	.877	Moderate

As indicated in Table 4.8, the Iraqi secondary school EFL students experienced considerable social support from their families (M= 4.20, SD= 0.917), teachers (M= 4.15, SD= 1.137), and classmates (M= 3.72, SD= 0.933). Nevertheless, these students reported moderate levels of confidence regarding how their classmates perceive them as good readers (M= 3.63, SD= 0.718) or in their belief that their teachers enjoy listening to them (M= 3.56, SD= 1.046). Additionally, they exhibited moderate beliefs about being seen as good readers by their teachers (M= 3.56, SD= 1.099), family (M= 3.53, SD= 1.131), or classmates (M= 3.13, SD= 0.877). These results suggest that Iraqi secondary school EFL students benefit from strong social support from families, teachers, and classmates. However, their moderate self-perceptions regarding how others view their reading abilities suggest a need for strategies to boost their confidence.

4.7.2 Observing Own Progress

This scale predicts the level of self-efficacy by comparing the students' perception of their current reading performance with their previous reading performance. Observing one's own progress in self-efficacy involves monitoring and reflecting on personal growth, improvement, and experiences related to one's belief in their ability to accomplish tasks and achieve goals. This process of self-observing

progress is a tool that can be used to foster the self-efficacy that EFL learners need to improve their performance in reading.

The data from the students' answers were analysed and the results showed that Iraqi secondary school EFL students use self-efficacy beliefs to a high extent (M= 4.46, SD= 0.595). The results along with the frequency of each self-efficacy belief related to monitoring one's own progress are given in Table 4.9.

Table 4.9
Self-Efficacy Related to Observing One's Own Progress (N = 178)

Questionnaire Items	**Mean**	**SD**	**Level**
I read faster than I could before.	4.65	.478	High
Reading is easier for me than it used to be.	4.54	.963	High
When I read. I recognize more words than I used to.	4.53	.768	High
I read better now than I could before.	4.45	1.047	High
When I read, I need less help than I used to.	4.45	.864	High
I can figure out words better than I could before.	4.44	.830	High
I understand what I read better than I could before.	4.39	.832	High
I am getting better at reading.	4.34	1.053	High
When I read, I don't have to try as hard as I used to.	4.34	.914	High

Based on the data presented in Table 4.9, it is evident that the students acknowledge improvements in various aspects of their current reading performance compared to their previous performance. For instance, they have noticed a significant enhancement in their reading speed (M= 4.65, SD= 0.478) and find reading to be easier than before (M= 4.54, SD= .963). Additionally, they express a heightened belief that their vocabulary has expanded (M= 4.53, SD= 0.768), their overall reading ability has improved (M= 4.45, SD= 1.047), and they require less assistance (M= 4.45, SD= 0.864), among other observations. Overall, the results suggest that students experience significant gains in their reading abilities (both in speed, ease and vocabulary). These findings underscore the need for appropriate learning environments and methods that reinforce such gains so that further growth and ongoing self-confidence in their reading skills can occur.

4.7.3 Observational Comparison

Observational comparison refers to the process through which individuals evaluate and assess their own capabilities by observing and comparing themselves to others. Bandura (1982), the psychologist who introduced the concept of self-efficacy, highlighted the role of observational learning in the development of self-efficacy beliefs. According to Henk and Melnick (1995), this scale determines the students' level of self-efficacy through observing and comparing the students' perception of their reading performance to other classmates' performance.

Examining every aspect within this scale demonstrated that the students' self-efficacy in comparing themselves to peers ranged between moderate and high. Overall, the findings indicate that Iraqi secondary school students generally rely moderately on these beliefs (M= 3.59, SD= 0.739). The descriptive statistics for each belief within this scale and its prevalence among Iraqi EFL learners are detailed in Table 4.10 below.

Table 4.10
Self-Efficacy Related to Comparison To Others (N = 178)

Questionnaire Items	Mean	SD	Level
I seem to know more words than other students when I read.	3.76	1.170	High
When I read, I can figure out words better than other students.	3.76	1.016	High
I understand what I read as well as other students do.	3.63	1.183	Moderate
I read better than other students in my class.	3.56	1.025	Moderate
I read more than other students.	3.42	.949	Moderate
I read faster than other students.	3.40	1.209	Moderate

According to the results in Table 4.10, the Iraqi school students recorded high levels in the belief that have larger vocabulary resources than their classmates (*M*= 3.76, *SD*= 1.170) and they can figure out or guess more words than their peers (*M*= 3.76, *SD*= 1.016). However, at moderate levels, they believe they understand similarly to their classmates (*M*= 3.63, *SD*= 1.183), but they feel they have a better reading ability (*M*= 3.56, *SD*= 1.025), and they read more often (*M*= 3.42, *SD*= 0.949) and faster (*M*= 3.40, *SD*= 1.209) than other students in the same classroom. These findings suggest that Iraqi

participants generally perceive themselves as having stronger vocabulary resources and better word-guessing skills than their peers. However, their beliefs about understanding, reading ability, frequency, and speed are moderate, suggesting room for building confidence in these areas.

4.7.4 Psychological State

The fourth aspect of students' self-efficacy is their psychological state. Psychological state refers to their current mental and emotional condition in relation to their belief in their capabilities to perform a particular task or achieve a specific goal. Individuals with a positive psychological state are more likely to have higher self-efficacy, as their mental and emotional conditions align with confidence, enthusiasm, and a sense of control over their abilities (Henk & Melnick, 1995).

After analyzing the participants' responses in this scale, the results showed that the students employed these psychological beliefs with varied frequencies. On average, the results showed that the Iraqi secondary school EFL students used these strategies at a moderate level (*M*= 3.52, *SD*= 0.939). Table 4.11 below presents descriptive statistics for each belief in this scale and the level of its frequency among participants.

Table 4.11
Self-Efficacy at the Psychological State Scale (N = 178)

Questionnaire Items	**Mean**	**SD**	**Level**
I think I am a good reader.	3.96	.999	High
I enjoy reading.	3.78	1.028	High
Reading makes me feel good.	3.72	1.120	High
Reading makes me feel happy inside.	3.57	1.385	Moderate
I think reading is relaxing.	3.54	1.212	Moderate
I feel calm when I read.	3.54	1.258	Moderate
I feel comfortable when I read.	3.49	1.141	Moderate
I like to read aloud.	3.41	1.326	Moderate
I feel good inside when I read.	3.12	1.397	Moderate

The data presented in Table 4.11 indicates that Iraqi secondary school students appear to place less emphasis on their mental states regarding their self-efficacy. At higher levels, students perceive themselves as proficient readers (M= 3.96, SD= 0.999), find enjoyment in reading (M= 3.78, SD= 1.028), and experience positive emotions from reading (M= 3.72, SD= 1.120). However, most participants reported moderate levels in this scale, as seen in instances where reading evoked feelings of inner happiness (M= 3.57, SD= 1.385) or when reading was considered a relaxing and enjoyable activity (M= 3.54, SD= 1.212). Additionally, other aspects like feeling calm (M= 3.54, SD= 1.258), comfortable (M= 3.49, SD= 1.141), and a sense of well-being (M= 3.12, SD= 1.397) while reading were rated at lower levels by the majority of participants.

These results suggest that students generally consider themselves skilled readers, and feel good about reading as a result. Yet reading experiences provide moderate-to-low degrees of relaxation, comfort and wellbeing – suggesting opportunities for developing ways to make reading experiences more emotionally satisfying.

4.7.5 Mediating Effect of Self-Efficacy in the Relationship Between Reading Strategies, Vocabulary Size, and Reading Comprehension

This section addresses the fourth research question of the study (RQ4) which aims to examine the mediating role of self-efficacy in the relationship between reading strategies, vocabulary size, and reading comprehension, especially if the relationship between reading strategies, vocabulary size, and reading comprehension would run via self-efficacy, i.e., the mediator. According to Hayes (2017), the mediation test explores the relationship between the independent variable X and the dependent variable Y, involving a mediator M in the model, as demonstrated in Figure 4.7 below.

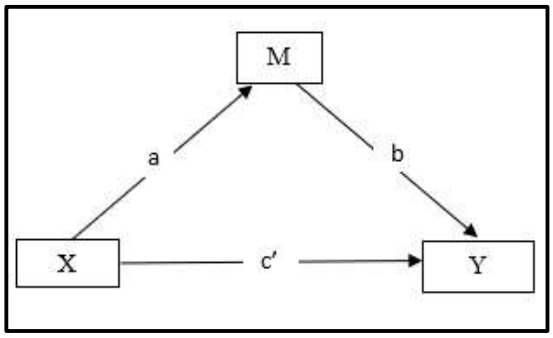


Figure 4.7 An Illustration of Hayes' Simple Mediation Model

In Figure 4.7, the direct path (*c'* path) represents the influence of the independent variable X on dependent variable Y while accounting for the mediator M (both X and M are predictors in the model). The *a* path signifies the influence of independent variable X on mediator M, while the *b* path denotes the effect of mediator M on dependent variable Y (where both M and X serve as predictors in the model). The collective influence of path *a* and path *b* is termed the *indirect effect* - it illustrates how the independent variable X influences the dependent variable Y through the mediator M. The indirect effect is calculated by multiplying the values of the *a* path by the *b* path.

In line with the conceptual framework of the present study, there are four independent variables (comprising global reading strategies, problem-solving reading strategies, support reading strategies, and vocabulary size) and one dependent variable (namely, reading comprehension), in addition to the mediator self-efficacy. The study aims to examine the moderating role of self-efficacy in the relationship between these four variables and reading comprehension. To explore this relationship, the study made use of the PROCESS Macro in IBM SPSS for Hayes (2017). Therefore, in what follows the study will present the results and findings related to each research hypothesis in research question 4.

H1: Self-efficacy significantly mediates the relationship between the global reading strategy and reading comprehension

Following Hayes' (2017) Macro Process via the bootstrapping method and Model #4, the study conducted an ordinary least squares path analysis to examine the mediating effect of self-efficacy on the relationship between global reading strategy and reading comprehension. As presented in Table 4.12 below, the results revealed no direct relationship between the global reading strategy and reading comprehension (β= -0.13,

p >.05). Additionally, there was no significant relationship between the global reading strategy and self-efficacy (path a) (β = 0.27, p >.05), but there was a positive and significant relationship between self-efficacy and reading comprehension (path b) (β = 0.30, p<.001).

Table 4.12
Model Coefficients for the Mediator Self-Efficacy on the Relationship Between Global Reading Strategy and Reading Comprehension (N = 177)

Relationship	**Total effect**	**Direct effect**	**Indirect effect**	**95% Confidence Interval**		**Conclusion**
				Lower	**Upper**	
Global -> Efficacy -> Reading	-.053	-.134	.222	.0047	.5077	Full mediation
	p>.05	p>.05	p<.05			

Path coefficients

							95% Confidence Interval	
			Estimate	**Std. Error**	**z-value**	**p**	**Lower**	**Upper**
efficacy	→	reading	0.296	0.072	4.102	< .001	0.157	0.431
global	→	reading	-0.134	0.166	-0.806	0.420	-0.432	0.173
global	→	efficacy	0.272	0.171	1.590	0.112	0.008	0.510

However, when it comes to the indirect effect of the model, the results revealed a significant indirect effect of self-efficacy on the relationship between global reading strategy and reading comprehension. The bootstrap confidence interval for the indirect effect (β = 0.22) based on 5,000 bootstrap samples did not contain zero BCa CI [.005, .508], thus evidence suggesting that the relationship between global reading strategy and reading comprehension is fully mediated by self-efficacy.

H2: Self-efficacy significantly mediates the relationship between problem-solving reading strategy and reading comprehension

Another mediation analysis was conducted to examine the mediating effect of self-efficacy on the relationship between problem-solving reading strategy and reading comprehension among Iraqi secondary school students. As presented in Table 4.13

below, the direct effect of the model was found to be significant, β =0.54, BCa CI [.173, .871], ***p***<.01, suggesting that problem-solving reading strategy influences reading comprehension independently of the mediator self-efficacy. The results further revealed that there was a statistically significant total effect, β =0.55, ***p***<.01, and thus evidence denoting that problem-solving reading strategy still affects reading comprehension when self-efficacy is accounted for in the model.

Table 4.13
Model Coefficients for the Mediator Self-Efficacy on the Relationship Between Problem-Solving Reading Strategy and Reading Comprehension (N = 178)

Relationship	**Total effect**	**Direct effect**	**Indirect effect**	**95% Confidence Interval**		**Conclusion**
				Lower	**Upper**	
Problem -> Efficacy -> Reading	0.552	0.539	0.013	-0.081	.102	No mediation
	p<.01	p<.01	p>.05			

Path coefficients

							95% Confidence Interval	
			Estimate	**Std. Error**	**z-value**	**p**	**Lower**	**Upper**
efficacy	→	reading	0.285	0.070	4.076	< .001	0.124	0.406
problem	→	reading	0.539	0.172	3.132	0.002	0.173	0.871
problem	→→	efficacy	0.047	0.185	0.256	0.798	-0.247	0.357

With regards to the mediating role of self-efficacy in the model, the results revealed no statistically significant indirect effect, β=0.013, BCa CI [-0.081, .102], **p**>.05. Overall, these results suggest that self-efficacy does not mediate the relationship between problem-solving reading strategy and reading comprehension.

H3: Self-efficacy significantly mediates the relationship between the support reading strategy and reading comprehension

A simple mediation analysis was also carried out to investigate how likely self-efficacy would act as a mediating factor in the relationship between support reading strategy and reading comprehension. As illustrated in Table 4.14 below, the results

showed that there was a positive and significant relationship between the support reading strategy and self-efficacy (β= 0.48, p <.001). Self-efficacy has also a positive and significant relationship with reading comprehension (β= 0.28, p <.001), but the results show no significant relationship between the support reading strategy and reading comprehension (β= .04, p >.05).

Table 4.14
Model Coefficients for the Mediator Self-Efficacy on the Relationship Between Support Reading Strategy and Reading Comprehension (N = 178)

Relationship	**Total effect**	**Direct effect**	**Indirect effect**	**95% Confidence Interval**		**Conclusion**
				Lower	**Upper**	
Support -> Efficacy -> Reading	0.176	0.042	0.134	0.037	0.280	Full mediation
	p>.05	p>.05	p<.05			

Path coefficients

						95% Confidence Interval	
			Estimate	**Std. Error**	**z-value**	**p**	**Lower**	**Upper**
efficacy	→	reading	0.281	0.075	3.744	< .001	0.121	0.408
support	→	reading	0.042	0.121	0.350	0.726	-0.182	0.237
support	→	efficacy	0.476	0.115	4.143	< .001	0.181	0.747

When it comes to the mediation effect of self-efficacy, the model suggests that there is a statistically significant indirect effect (β= 0.13). The bootstrap confidence interval for the indirect effect based on 5,000 bootstrap samples was entirely above zero BCa CI [.037, .280], suggesting that self-efficacy significantly mediates the relationship between support-reading strategy and reading comprehension.

H4: Self-efficacy significantly mediates the relationship between vocabulary size and reading comprehension

The study carried out another mediation analysis to assess how likely self-efficacy would mediate the relationship between vocabulary size and reading comprehension. As shown in Table 4.15 below, the results revealed that the total effect

of the model was significant, β =.079, p<.001, suggesting that vocabulary size significantly and positively influences reading comprehension independently of the mediator self-efficacy. The results further showed that there is a significant direct effect between vocabulary size and reading comprehension when self-efficacy was controlled for in the model, β= .075, p<.00l.

Table 4.15
Model Coefficients for the Mediator Self-Efficacy on the Relationship Between Vocabulary Size and Reading Comprehension (N = 178)

Relationship	**Total effect**	**Direct effect**	**Indirect effect**	**95% Confidence Interval**		**Conclusion**
				Lower	**Upper**	
Vocab -> Efficacy -> Reading	0.079	0.075	0.004	-0.003	0.0301	No mediation
	p<.001	p<.001	p>.05			

Path coefficients

						95% Confidence Interval	
			Estimate	**Std. Error**	**z-value**	**p**	**Lower**	**Upper**
efficacy	→	reading	0.226	0.062	3.661	< .001	0.117	0.323
vocabulary	→	reading	0.075	0.009	8.179	< .001	0.058	0.092
vocabulary	→	efficacy	0.019	0.011	1.687	0.092	-0.002	0.041

In examining the mediating effect of self-efficacy in the model, the results revealed that the indirect effect of the model was not significant, β=0.004, BCa CI [-0.003, 0.0301], **p>**.05, and therefore self-efficacy does not mediate the relationship between vocabulary size and reading comprehension.

Overall Hypotheses Results

As summarised in Table 4.16 below, self-efficacy significantly mediates the relationship between global reading strategy and reading comprehension, as well as between support reading strategy and reading comprehension (p<.05), but it does not mediate the relationship between the problem-solving strategy, vocabulary size, and reading comprehension (**p>**.05). The indirect effects of the model also reveal that the

effects of the global reading strategy and support reading strategy on reading comprehension were fully mediated by students' self-efficacy, i.e., fully dependent on self-efficacy, suggesting that higher levels of self-efficacy appear to enhance students' reliance on metacognitive reading strategies.

Table 4.16
Summary of the Direct and Indirect Effects of the Mediator Self-Efficacy on the Relationship Between Reading Strategies, Vocabulary Size and Reading Comprehension

Path	**Direct Effect**	**Indirect Effect**	**Results**
glb → eff → rdn	(β= -0.13, p>.05)	(β= 0.22, p<.05)*	Full mediation effect
prb → eff → rdn	(β=0.54, *p*<.01)*	(β=0.01, *p*>.05)	No mediation effect
spp → eff → rdn	(β= .04, p >.05)	(β= 0.13, p<.01)*	Full mediation effect
vcb → eff → rdn	(β=.075, p<.001)*	(β=0.004, p>.05)	No mediation effect

As given in Table 4.16 below, both students' problem-solving reading strategy and vocabulary size significantly and positively influence the reading comprehension score among Iraqi secondary school EFL students. In simpler terms, the students who utilised the problem-solving reading strategies more often and had more extensive vocabulary knowledge performed better in their reading comprehension test. These findings were presented in the results of RQ3 (H2 and H4).

Table 4.17
Summary of Hypotheses Testing Results

	Hypotheses	**B**	**P-value**	**Results**
Research Question 4	H1: Self-efficacy significantly mediates the relationship between the global reading strategy and reading comprehension	.08	p<.05	Supported
	H2: Self-efficacy significantly mediates the relationship between the problem-solving reading strategy and reading comprehension	.01	*p*>.05	Rejected
	H3: Self-efficacy significantly mediates the relationship between the support reading strategy and reading comprehension	.13	p<.01	Supported
	H4: Self-efficacy significantly mediates the relationship between vocabulary size and reading comprehension	.004	*p*>.05	Rejected

Here is below a summary of the findings regarding the relationships between various factors and reading comprehension, as well as the mediating role of self-efficacy presented in Table 4.17:

1. Global Reading Strategy (H1): No significant relationship was found with reading comprehension (-.06, $p > .05$), and this hypothesis was rejected. However, self-efficacy significantly mediates this relationship (.08, $p < .05$), indicating that confidence in one's abilities plays a role when global reading strategies are involved.
2. Problem-Solving Reading Strategy (H2): A significant relationship exists between problem-solving reading strategies and reading comprehension (.28, $p < .001$), supporting the hypothesis. However, self-efficacy does not mediate this relationship (.01, $p > .05$), suggesting the strategy works independently of self-confidence.
3. Support Reading Strategy (H3): No significant relationship was observed between support reading strategies and reading comprehension (.05, $p > .05$), leading to hypothesis rejection. Yet, self-efficacy significantly mediates this relationship (.13, $p < .01$), suggesting that confidence enhances the effectiveness of support strategies.
4. Vocabulary Size (H4): A strong, significant relationship exists between vocabulary size and reading comprehension (.56, $p < .001$), supporting the hypothesis. However, self-efficacy does not mediate this relationship (.004, $p > .05$), indicating vocabulary directly influences comprehension without reliance on confidence.

All in all, the findings show that both problem-solving reading strategies and vocabulary size directly influence reading comprehension, with vocabulary showing the strongest effect. Self-efficacy plays a mediating role in some relationships (global and support strategies), highlighting the importance of confidence in leveraging these strategies effectively.

4.8 Difficulties in Reading Comprehension (Qualitative Focus Group Discussion)

The fifth research question evaluates the reading comprehension difficulties faced by Iraqi secondary school EFL students. The focus group discussion findings revealed both the vocabulary and reading comprehension difficulties faced by students and the methods they use to address these challenges. Table 4.18 below shows participants identified problems including restricted vocabulary resources and inadequate practice opportunities along with low student interest, insufficient instructional support, and the in effective teaching methods for Iraq English teachers. The participants suggested some strategies to overcome these learning barriers where they improved their language abilities through the use of digital tools and exposure to media as well as contextual learning methods. Further discussions follow in the following subsections.

Table 4.18
Summary of Themes from the Focus Group Discussions

Theme	Subtheme	Example Quotes
Student-related factors	Limited vocabulary	*"Yes, there are challenges; I face difficulties in understanding the academic terms, which, in turn, take time in translating and understanding." "I have sometimes difficulty when I face new words, but then I understand their meanings according to the context."*
	Lack of interest	*"It is low because I don't have the passion in learning English language."*
	Inadequate practice	*"Our schedule only has five English classes a week, and they mostly focus on grammar instead of other language skills. How can I become really good at reading without getting more practice?" "I have challenges in reading due to the lack of listening to the English language, and I'm trying to enhance my skills now."*
Teacher-related factors	Insufficient support	*"English language instructors are sometimes fast and don't translate the new words into Arabic even when we seek for the information it is not accepted by them." "Lessons shouldn't be given so fast. When the teacher explains quickly, I feel like I cannot follow the ideas or remember the new vocabulary. "*
	Ineffective teaching approach	*"English language instructors speak in academic or advanced words without explanation of the meaning. As a result, we invest time to understand the meaning of these new words." "Words pronunciation of the English language instructors is usually wrong." "The way of text explanation should be simple*

Theme	Subtheme	Example Quotes
		and clear to the student." "The focus is on grammar should be given more attention."
Strategies and Solutions	Vocabulary learning strategies	*"I translate new words on Google." "I join different groups on YouTube and Facebook to listen to the new terms and their meanings. Then, I memorize a new word each day and learn it." "I watch English movies to learn and listen to new words."*
	Overcoming reading comprehension challenges	*"I try to guess the meaning from the context and the cohesiveness of the sentences." "I divide the text into multiple subtexts to simplify the text and understand the meaning." "I try to understand the general meaning of the text and the context."*
		"I try to guess the meaning from the context." "I connect the question to the following question and to the text generally." "I read the next sentence and try to guess the meaning from the context." "I try to simplify it, then, I guess the meaning from the context and the related questions to the text."

The following sections present a detailed analysis of these challenges and strategies based on students' responses.

4.8.1 Student-Related Factors

4.8.1.1 Limited Vocabulary

The findings from the focus group discussions demonstrate that Iraqi secondary school EFL students face major challenges due to limited vocabulary which affects their ability to comprehend academic language. Many students face difficulties understanding unfamiliar words which creates a barrier to their comprehension and engagement with reading materials. One participant stated,

> *"Yes, there are challenges; I face difficulties in understanding the academic terms, which, in turn, take time in translating and understanding. Sometimes I stop reading to search for terms, but if there are too many, I lose focus on the whole paragraph."*

Students encounter words associated with academic achievement that need significant effort to comprehend. They need translation assistance because their existing vocabulary limits their ability to understand terms instantly which leads to delayed comprehension of course material. Specialized terminology in academic subjects

presents heightened challenges for students when they attempt to understand lectures discussions and academic texts.

The participants also shared that they encounter difficulties when they come across common words that are outside their academic vocabulary knowledge,

> *"I have sometimes difficulty when I face new words, but then I understand their meanings according to the context."*

This statement of the participants describes how they struggle to grasp word meanings, although they try to determine meanings through contextual hints. Through contextual learning, Iraqi EFL students develop their vocabulary by learning to interpret word meanings from the text instead of relying only on direct translations. Students struggle with this instructional approach whenever they encounter complex terms which require detailed explanations to understand. Students' reading comprehension and language confidence declines when they repeatedly encounter unfamiliar vocabulary terms.

Together, these narratives paint a picture of how the most basic elements of reading comprehension can be affected by poor vocabulary; not only are readers dealing with unfamiliar words, they are dealing with unfamiliar words at every step of the process, from making sense of what is on the page to understanding the nuance of context. It can have a profound impact on what students take away from a piece of text, and on their overall comprehension.

These problems can be addressed only when these challenges are set in the context of wider issues about language learning and teaching, such as the role that vocabulary plays in reading, and in how to teach it. To this end, focusing on vocabulary enrichment through contextualised learning and using pedagogical methods that facilitate a deeper understanding of terms in context of the text around it are critical parts in finding a solution.

To sum up, these narratives highlight the vital role of vocabulary in reading comprehension for Iraqi high school EFL students, and emphasise the importance of including specialised interventions and supportive learning environments that help learners develop vocabulary.

4.8.1.2 Lack of Interest

The findings from the focus group discusssions also revealed that students who lack interest and motivation experience substantial difficulties in expanding their English vocabulary. Students acknowledged their vocabulary learning difficulties result from their inability to stay fully involved in the educational process. One participant stated,

> *"It is low because I didn't pay attention to the teacher while he is explaining the meaning of new words, and I don't listen to English language programs."*

Students encounter learning challenges for new words because their classroom attention is poor and they miss English language exposure beyond school lessons. Students experience limited vocabulary development when they fail to actively engage with their teachers' presented material and do not pursue additional learning opportunities. This suggests that students who do not pay attention in class risk missing essential explanations and examples that would help them understand better, which leads to growing learning gaps over time. Therefore, students who do not participate in English language programs encounter restricted exposure which makes effortless vocabulary acquisition difficult. One participant explained that their challenge stemms from a fundamental lack of interest in language learning:

> *"It is low because I don't have the passion in learning English language. I think if learning activities were more engaging, like using games or real-life topics, I might become more interested and remember new words better."*

These statements suggest that vocabulary learning success depends heavily on personal motivation, i.e., above and beyond teaching strategies or curriculum designs. Students who lack a personal drive to learn will not dedicate the necessary time to practice and memorize new words for effective application across various situations. Students who do not feel excited about learning English tend to adopt passive learning habits and only study when necessary, missing out on opportunities to actively enhance their language skills. Students who use passive learning methods will face challenges in remembering vocabulary and fail to establish a solid language foundation. Even the best teaching strategies fail to produce results if students do not

have internal motivation because learning demands continuous effort and engagement from students (Urhahne & Wijnia, 2023).

These narratives suggest that educational settings need to create conditions that spark student interest while promoting active participation through feedback. Students demonstrate less dedication to learning English vocabulary when they maintain their disinterest in the subject itself. English students remain unenthusiastic about their studies due to ineffective teaching methods which, along with their beliefs about language complexity, prevent them from seeing practical applications in real life. The lack of personal relevance and practical benefits in the language creates ongoing motivational difficulties for students.

Previous studies show that educational settings which incorporate gamification into language practice exercises tailored to student interests should boost learning motivation (Huseinović, 2024; Thurairasu, 2022). English exercises focused on entertainment like film viewing together with discussion group activities help students transform their academic routine from obligatory tasks into engaging learning experiences. Educators who help students achieve success through small measurable goals maintain sustained student motivation, and long-term student-engagement increases when they can track measurable progress throughout their educational path.

In brief, students frequently demonstrate lack of interest in English because they possibly associate it with their negative past experiences in language learning. Students who faced difficulties with English in the past, or who received insufficient support often experience feelings of defeat and frustration, may develop feelings of disengagement from academic learning. Therefore, educational professionals must build student confidence through positive reinforcement and personalized educational routes while ensuring access to resources that match their abilities, because learners lacking internal motivation will continue to struggle with vocabulary development unless they receive instructional strategies that boost their interest and engagement. Understanding what causes a lack of interest and how teachers can address this is crucial for designing more effective strategies to increase students' interest and motivation in learning English, and to improve their reading comprehension abilities more generally.

4.8.1.3 Inadequate Practice

The focus group discussion revealed that students face inadequate opportunities to enhance their English language abilities and identified particular shortcomings in reading practice and vocabulary development. Many students expressed dissatisfaction with their educational program because English reading comprehension classes occurred too infrequently during each week. One student stated,

> *"Our schedule only has five English classes a week, and they mostly focus on grammar instead of other language skills. How can I become really good at reading without getting more practice?"*

As per the student's feedback, the English curriculum in Iraq gives excessive attention to grammar at the expense of critical language components including reading comprehension development, vocabulary expansion, and listening skills. Students who lack comprehensive language learning exposure may fail to reach full English proficiency which causes their language understanding and application to remain incomplete. The absence of regular listening English practice prevents students from developing better understanding skills and creates substantial barriers to their learning. One participant explained,

> *"I have challenges in reading due to the lack of listening to the English language, and I'm trying to enhance my skills now. Reading is not part of my daily routine, so I only improve when I force myself to read academic materials."*

Without listening practice students cannot develop reading skills because they cannot learn new vocabulary words. Without listening practice students face difficulties in pronunciation and sentence formation which leads to problems understanding written content.

The Iraqi participants also expressed the lack of adequate practice in English reading and learning when they shared thoughts about how they rarely watch or listen to reports in English, as narrated in the following excerpts:

> *"I don't listen to English language programs. I used to think listening wasn't important, but I noticed that those who listen more to English shows have better vocabulary and understanding."*

Students adopt independent learning methods because their educational system lacks sufficient hands-on practice opportunities. Students must seek learning approaches beyond the classroom when instruction in reading and vocabulary falls short. Digital tools along with personal study methods and media exposure are beneficial yet they fall short in delivering complete support for continuous language development. Students can overcome learning gaps and build a solid foundation for better English proficiency through a curriculum that equally integrates grammar with vocabulary, reading, listening, and speaking activities.

Overall, reading assignments and listening exercises that incorporate discussions may help Iraqi EFL students enhance their classroom learning through practical language activities. Group projects, presentations and conversational exercises which simulate real-world language usage may also help students improve their English abilities and boost their confidence. However, without these educational adjustments, the students may experience poor language learning because they will miss essential practice and depth needed for true progress.

4.8.2 Teacher-Related Factors

4.8.2.1 Insufficient Support

The focus group discussions exposed significant student challenges due to insufficient support from their English language teachers. Students identified that the speed at which lessons are delivered hinders their understanding of new vocabulary. Some students expressed dissatisfaction as the rapid pace of lessons limited their understanding and memorization skills. One student noted,

> *"English language instructors are sometimes fast and don't translate the new words into Arabic. Even when we seek the information, it is not accepted by them. If instructors could slow down and provide short vocabulary lists after each lesson, it would make learning much easier."*

Teachers who use English immersion as their main strategy often neglect important learning structures which makes students struggle with understanding new vocabulary. Students find it difficult to grasp lesson content when instructors neither slow down their explanations nor provide translations to help students decode new terminology. So, a lesson pacing problem was confirmed by one participant:

> *"Lessons shouldn't be given so fast. Sometimes we ask for clarification on reading techniques, but the teacher just tells us to read more on our own."*

Students require additional time to learn new vocabulary yet educational methods usually lack this important component. Students struggle with classroom instructions because the fast lesson pace prevents them from asking questions while they rely on digital translation tools for assistance. Students must independently learn vocabulary outside the classroom to transform learning into a self-directed process away from instructor-led interactions.

Instructors' use of complex language without sufficient explanation formed major obstacles for participants to understand lessons. One participant remarked,

> *"English language instructors speak in academic or advanced words without explanation of the meaning. As a result, we invest time to understand the meaning of these new words."*

These students' narratives suggest that students experience difficulty understanding lessons when teachers use advanced language and complex methods that include vocabulary they have not learned before. Students need to allocate additional time to translate complex vocabulary when educators do not provide necessary explanations or context. Students who struggle to learn new vocabulary encounter further problems when teachers provide unclear explanations.

These testimonies by students collectively highlight the significance of instructional support on creating a supportive environment for reading. It is important for the instructors to be thoughtful and adaptive when dealing with these challenges. For instructors to be more supportive, they have to think carefully about the balance between pace and comprehension, the need to provide clarification on advanced vocabulary, and the importance of a learner's pronunciation. Above all, they can make their support more effective by making sure that reading is less stressful by opening a dialogue with students about their specific learning concerns and preferences.

To sum up, the lack of help from teachers of English is the main problem that these students have to face when it comes to reading comprehension. They need help with correct pronunciation, pace, and clarity. Teachers can help solve this problem by creating an environment in which the students can confront their difficulties with language comprehension without fear, and with the utmost confidence.

4.8.2.2 Ineffective Teaching Approach

The students' comments also reveal another major obstacle to reading comprehension: ineffective teaching methods. The focus group discussion revealed key problems with existing methods of teaching English in their classroom. The participants raised issues about grammar-focused teaching, because it led to inadequate development of key language skills including vocabulary learning and reading comprehension abilities. Students encounter limited language learning opportunities, because the current focus on grammar training neglects and marginalizes other important learning domains.

> *"Our schedule only has five English classes a week, and they mostly focus on grammar instead of other language skills. How can I become really good at reading without getting more practice?If teachers gave us more exercises on comprehension or vocabulary in context, I believe we would perform much better."*

The excessive focus on grammar rules prevents Iraqi secondary school EFL students from developing meaningful language skills. Practical language practice remains an essential requirement for students who wish to develop English fluency and confidence when using the language in real-life situations.

Teachers frequently faced issues since there were no solid guidelines for their teaching methods. Students reported that instructor teaching methods were overly complicated which obstructed their grasp of new material. One participant shared,

> *"The way of text explanation should be simple and clear to the student. When the explanation is not clear, I lose focus and feel less interested in continuing the lesson."*

This points to the importance of teachers using instructional approaches that match students' levels of understanding, and avoid using explanations that might be overly complex or unwieldy, and more likely to hinder than help. The findings of the discussions indicate that students develop inadequate vocabulary understanding and face learning obstacles when lessons fail to break down complex topics into understandable parts. Therefore, structured educational techniques that target Iraqi EFL students through simple explanations tied to real-life scenarios may produce improved student retention and increased engagement.

The interviewees also reported that their teachers delivered lessons at fast speeds while using complicated language that they failed to explain. One respondent stated,

> *"English language instructors speak in academic or advanced words without explanation of the meaning. As a result, we invest time to understand the meaning of these new words."*

The lack of adequate teacher support leads students to develop self-study routines as they face language issues in class which generate frustration. The teaching strategy requires students to work through complex vocabulary independently due to an absence of enough instructional help. Students commonly use digital translation tools and media as educational aids but these resources frequently fall short in delivering complete understanding.

Students and parents expressed concern regarding the accelerated speed at which teachers delivered lessons to students. The rapid presentation speed of topics by instructors made it difficult for students to understand new information. One participant explained,

> *"Lessons shouldn't be given so fast. When the teacher explains quickly, I feel like I cannot follow the ideas or remember the new vocabulary. "*

These students' ideas point out the importance of a good teaching style to the successful processing of texts. A good pace, with a teacher who explains clearly, is essential to students' understanding. Teachers should try to help students by engaging in a more student-centered style of learning. They will have to slow down and explain more clearly, and should consider the differing speeds and styles of students, modifying their teaching based on these factors. In addition, they have to explain the material at the appropriate level of understanding. A good pace builds in time for processing.

Students did not ask for further explanations because the strict instructional structure provided little encouragement for doing so. One student commented,

> *"English language instructors are sometimes fast and don't translate the new words into Arabic. Even when we seek the information, it is not accepted by them."*

This feedback indicates that certain educators fail to address student requirements, which results in learners missing essential support to comprehend and

learn new words and concepts. Lack of accommodation for diverse learning styles by instructors may lead to student disengagement and reduced motivation to enhance their language abilities. Therefore, creating an inclusive learning environment requires adopting teaching methods that enable students to comfortably ask questions and seek clarifications.

In brief, the findings from the focus group discussions show that the current classroom teaching methods in Iraq create multiple obstacles for students trying to learn new vocabulary. To improve instructional methods, educators should merge grammar lessons with vocabulary-building exercises while modifying lesson speed and simplifying explanations to make learning accessible. Creating interactive classroom settings that encourage students to ask questions will greatly enhance their involvement and understanding in the learning process. Instructors who address these classroom challenges will construct a more supportive educational environment that helps students grow their vocabulary and improve their spoken communication abilities. Maybe the use of additional materials like visual aids alongside interactive exercises can help students improve their reading comprehension and vocabulary learning.

4.8.3 Strategies and Solutions

4.8.3.1 Vocabulary Learning Strategies

The results from the focus group discussions about students' strategies to overcome challenges associated with vocabulary learning and reading comprehension have revealed various approaches that Iraqi secondary school EFL learners used to enhance their vocabulary learning process. Students demonstrate advancements in their language development when they combine independent study methods with technology tools and contextual learning alongside social interaction. Some students demonstrate active vocabulary growth whereas others face motivational barriers and learning-strategy issues which result in different effort levels and success rates among learners (Dan et al., 2025).

Digital tools were preferred by most participants for language learning, with Google Translate and online dictionaries serving as their primary resources. A participant remarked, *"I translate new words on Google and dictionaries."* Students' utilization of translation technology to acquire new vocabulary demonstrates the

essential role technology plays in their academic progress. Digital resources provide students with instant access to word definitions which boosts their understanding of new vocabulary words. Students can read complex texts without frustration by using instant translation tools to overcome comprehension barriers.

Students' frequent use of translation applications to learn new vocabulary can demonstrate the impact that technology has on EFL learning methods. One participant reported *"I watch movies without translation, songs, and stories,"* while another explained, *"I watch English movies to learn and listen to new words."* Students' narratives demonstate that technology is useful in vocabulary learning, as it offers prompt assistance when learners encounter unfamiliar words. In other words, the prompt translation services offered by the translation tools enable EFL students to process difficult reading material and minimize the frustration caused by comprehension obstacles.

Some Iraqi students resort to contextual analysis to obtain word meanings when digital resources cannot provide definitions,*"I use Google Translator. If I can't use it, I try to guess the meaning from the context,"* suggesting that they use various resources and approaches to overcome challenges in reading comprehension.

Apart from digital technology tools, the Iraqi secondary school EFL students sometimes use English-language media to expand their vocabulary knowledge. The participants suggested that listening to songs while watching English movies and television episodes enhances their vocabulary rsources. One participant from the study shared that they learn new words and their definitions by joining groups on YouTube and Facebook:

> *"I join different groups on YouTube and Facebook to listen to new terms and their meanings. Then, I memorize a new word each day and learn it."*

In fact, students who often watch English media benefit from seeing vocabulary used in different contexts. This can in turn improve their ability to retain words and understand them better. Through consistent exposure to film dialogue and song lyrics, students can develop strong pronunciation skills and wide usage of vocabulary in different contexts, resulting in intuitive vocabulary understanding.

Iraqi secondary school students also use online community platforms to obtain English resources and join discussions as they learn vocabulary through real-world

examples. Students benefit from learning strategies that expand their vocabulary range while real-world application strengthens their understanding of word meanings and improves memory retention through practical use. They expressed that they enhance their vocabulary knowledge by participating in social learning experiences and direct interactions with English-speaking communities. They use these strategies to actively look for opportunities to repeatedly use new vocabulary words they have learned.

Students who seek to grow their vocabulary knowledge implement deliberate practice together with repetition as central learning strategies. The participant stated they maintain consistent English language study because they try to practice it daily,

> *"I always study English language and try to use it every day. Using English daily, even for simple things like texting or watching short clips, keeps me motivated to learn more vocabulary."*

The statement shows that continuous learning practices lead to better vocabulary retention. Through continuous learning and practical use students gain better vocabulary comprehension. A student explained their technique of breaking down complex texts into smaller sections which simplifies comprehension and meaning extraction.

> *"I try to divide the text into multiple subtexts to simplify the text and understand the meaning. Dividing the text into sections makes long readings less overwhelming."*

The findings from these discussions show that Iraqi secondary-school EFL students employ several vocabulary learning approaches. These involve both digital media resources and conversational peer activities while practicing repetition techniques within contextual understanding. Students apply these strategies to shape their educational path while identifying which learning strategies work best for them. When students demonstrate restricted participation in class along with diminished motivation, students need additional support and specialized programs to address these issues. Therefore, interactive teaching methods which combine real-world vocabulary usage with academic vocabulary instruction may enable students to attain good linguistic proficiency.

4.8.3.2 Overcoming Reading Comprehension Challenges

The results from the focus group discussion revealed several strategies that the participants used to enhance their reading comprehension of difficult text material. The primary strategy participants used to figure out word meanings was analyzing contextual clues. One participant explained,

> *"I try to guess the meaning from the context and the cohesiveness of the sentences. I sometimes reread difficult paragraphs aloud; hearing the words helps me focus and understand better."*

Students comprehend unfamiliar vocabulary through sequential sentence analysis instead of isolating individual word translation. Students prefer contextual guessing in language learning because this approach helps them understand new words while reading without requiring additional learning materials. Analysis of sentence structures and word relationships enables students to develop better critical thinking skills when interpreting word meanings.

> *"I try to understand the general meaning of the text and the context. I also underline key words or phrases that seem important so I can review them later."*

When readers grasp an entire passage, they can decode the individual words in that passage with greater accuracy. This aligns with the top-down processing models of reading which advocates starting main ideas before looking at individual details. Students who concentrate on grasping the central idea can comprehend textual meanings without needing to know every single word. Additionally, academic reading skills may become better through this technique because guessing the meaning through context enables readers to come around difficult terms and read with out unnecessary disruptions.

The participants also suggested that they benefit from breaking down the text into smaller pieces to maximize their understanding. One student described,

> *"I divide the text into multiple subtexts to simplify the text and understand the meaning."*

According to the cognitive load theory, breaking information down into smaller parts improves both memory retention and comprehension. Reading lengthy texts in

smaller sections may thus produce improved student results by avoiding the problem of information overload. This step-by-step approach seems to help Iraqi EFL students understand complex text.

The respondents also suggested that later parts of the text often explain sections which were unclear at first, *"I read the next sentence and try to guess the meaning from the context."* This strategy demonstrates understanding of textual cohesion since it reveals how ideas connect across the passage. Students who persevere through difficult words or phrases find helpful clues that boost their comprehension of the text. Narrative and expository texts gain the most from this approach because their meanings develop across sentences rather than being disclosed in one statement. Students must produce meaning dynamically using this method instead of depending on direct translation or memorization approaches.

Multiple students showed improved understanding when they merged varied techniques. One participant stated,

> *"I try to simplify it, then, I guess the meaning from the context and the related questions to the text."*

Students follow a systematic method to examine complex data which they subsequently validate through contextual hints and related questions. Through their use of various techniques students show they understand flexible reading strategies. Readers adjust their reading methods according to the type of text they read and any personal difficulties they experience. Skilled readers show flexibility through the use of various reading approaches that correspond to the specific requirements of each text they read.

Study findings indicate students use many comprehension strategies which require active interaction with the text. Students apply context analysis together with segmentation and strategic reading approaches to develop their comprehension skills rather than using translation tools from external sources. Self-directed learning requires students to cultivate their reading abilities without any help from instructors or reference materials. Educators' targeted instruction and classroom exercises help students develop improved reading comprehension abilities.

In brief, the effectiveness of formal teaching environments improves significantly through the adoption of these instructional techniques. Educators should create reading exercises to help pupils learn to predict text content and understand

context as well as to break down texts while developing their ability to anticipate reading material. By incorporating metacognitive strategies like self-questioning and summarization into their lessons, teachers enable students to acquire advanced reading comprehension abilities.. Educators who establish strategic reading environments help students develop crucial skills that boost their confidence when reading complex texts. Educational techniques combined with digital resources and collaborative learning exercises enable students to access multiple materials which enhance their ability to understand.

4.9 Summary

This chapter reported the results and findings of the present study which investigated the factors influencing secondary school EFL learners' reading comprehension. This study adopted a mixed-methods approach that combined quantitative data analysis and qualitative insights. The quantitative analysis revealed significant relationships between the independent variables and the reading comprehension performance. The study found that there was a positive association between using strategies while reading text and reading comprehension. The use of reading strategies, especially being metacognitively aware, affects the students' comprehension of the text. Moreover, there was a positive relation between the size of the vocabulary and the ability of the students to comprehend the text. The size of the vocabulary has a great impact on students, as it helps them to understand the text more and prevent guessing. Finally, there was a positive association between reading self-efficacy and reading comprehension.

The qualitative data, captured through students' narratives, provided a contextual understanding of Iraqi secondary school EFL learners' reading comprehension problems. Students were asked to express their problems with limited vocabulary, lack of interest in learning the English language, lack of practice opportunities outside of class, and lack of support from teachers. The human component of these narratives captured the intricacy of students' problems that are often missed when looking at raw numbers, and can offer more insight into the real experiences and perceptions of students.

Based on the quantitative and qualitative data, the chapter ends with a summary of findings, which outlines the interplay of factors that underlie the reading

comprehension scores of Iraqi secondary school students. The combination of quantitative associations and qualitative stories sheds light on the difficulties and potentials of English language education in Iraq. Finally, the chapter emphasised the value of evidence-based interventions and instruction to guide teaching and learning practices that could better meet the needs of Iraqi EFL learners.

CHAPTER 5
DISCUSSION

5.1 Introduction

This chapter explains the findings of the study in the light of each research question stated in Chapter 1, namely, an explanation and discussion of the students' reading strategies in EFL (RQ1), vocabulary size of the students (RQ2), the relation of the students' reading strategies with their vocabulary size and reading comprehension (RQ3), the mediating role played by self-efficacy between the students' reading strategies, vocabulary size and reading comprehension (RQ4), and, finally, the problems that students face in developing their reading comprehension at public schools in Iraq (RQ5).

5.2 Reading Strategies of Iraqi Secondary School EFL Students

Reading strategies are methods and techniques that are used to improve reading comprehension, retention, and text analysis. A major objective of the present study is to understand the specific reading strategies used by Iraqi secondary school EFL learners for reading comprehension, which was investigated using a survey questionnaire that required participants to select the reading strategies they mostly relied on to improve their reading comprehension. This included three primary reading strategies: global reading strategies, problem-solving reading strategies, and support reading strategies, as indexed by the SORS (Mokhtari & Sheorey, 2002). The results and findings of the study showed that Iraqi participants used these three reading strategies to different degrees, with the problem-solving reading strategy (44.6%) as the most frequently used strategy, followed by the support reading strategy (36.6%) and then the global reading strategy (24.7%).

Since the problem-solving reading strategies involve taking conscious decisions and actions to enhance reading comprehension (Mokhtari & Reichard, 2002; Mokhtari & Sheorey, 2002), the elevated use of strategies like re-reading to enhance comprehension, re-reading when concentration reduces, and paying closer attention when the text is difficult indicates that the participants were consciously involved in

problem-solving to handle comprehension difficulties. This is also consistent with the metacognitive principle that readers have some awareness of their cognitive processes, and that they actively try to regulate and control those processes to enhance comprehension (Abd Ali et al., 2023; Grabman & Dodson, 2024; Schraw & Dennison, 1994; Shehzad et al., 2021). Consequently, the relatively high ratings for problem-solving strategies reflect the perceived effectiveness of these strategies as coping mechanisms for poor text comprehension. In essence, the self-ratings on the problem-solving reading strategies revealed that these self-regulation strategies were perceived as effective for dealing with text comprehension difficulties.

Similarly, participants' tendencies to engage in more guessing – that is, to infer the meaning of more unknown words or phrases – during reading reflects high levels of engagement and adaptability to address comprehension difficulties (Al-Mekhlafi, 2018; Banditvilai, 2020; Par, 2020). It seems that Iraqi secondary school EFL learners depend on a combination of reasoning processes and contextual clues to overcome challenges associated with limited vocabulary. Findings such as these reflect underlying manifestations of cognitive flexibility that help to maintain overall levels of comprehension when confronted with unknown vocabulary (Butterfuss & Kendeou, 2018; Singh et al., 2021).

However, as the ratings of Iraqi secondary school participants descend into the moderate range, especially for strategies such as changing reading speed, stopping to think occasionally, and reading slowly and carefully, it suggests a diverse range of responses to the difficulties of difficult texts (Chapman & Tunmer, 2019). The moderate ratings might suggest that participants use the strategies less extensively or consistently, or perhaps adapt their approach depending on the need, such as when considering the specific challenges that each text poses (Soemer & Schiefele, 2019). The key underlying reasons might be explained by individual differences in cognitive styles, reading habits and preferences (Aharony & Bar-Ilan, 2018; Kuijpers et al., 2019). Some participants might tend to read in a slower, more deliberate manner, whereas others might prefer a quicker approach. Therefore, the moderate ratings might echo a diverse range of reading strategies among the participants. These strategies might be influenced by their own cognitive preferences and metacognitive perceptions of reading effectively (Teng, 2020).

The high preference of the participants towards using the problem-solving reading strategies over support and global reading strategies also indicates that the

students need to develop their cognitive skills, especially the higher cognitive skills that need more cognitive effort, such as analysing and evaluating what is written in the text (Ali & Razali, 2019; Mohseni et al., 2020). Even some strategies such as setting a reading purpose, checking the fitness of the text to the reading purpose, taking decisions about the text features (text is important or unimportant), and setting questions about the text before reading process, were also moderately employed by the participants, the Iraqi EFL learners still need to develop these strategies to understand the reading text. This view was echoed by Hasan (2015) who found that training learners on using more difficult strategies, especially those that need more cognitive effort, would significantly and effectively increase learners' reading awareness and significantly improve learners' reading (see also Abd Ali et al., 2023; Albazi & Shukri, 2016).

The second plausible explanation for the high use of problem-solving reading strategies over support strategies and global reading strategies among the Iraqi secondary school learners might be because problem-solving strategies are straightforward and direct, which put less pressure on the reader (Ali & Razali, 2019; Fuchs et al., 2018), whereas the application of global reading strategies and support reading strategies requires a good command of the English language (Birch & Fulop, 2020), which is currently lacking among the Iraqi secondary school EFL learners, and they might find difficulty in evaluating and critical thinking.

Several studies suggest that as the proficiency level increases, students tend to shift from the use of surface-level strategies, e.g., focusing on the words, to more sophisticated reading strategies (Ghaith & El-Sanyoura, 2019; Nourdad et al., 2018). The students in the present study were school students, who were less proficient than the university students in previous studies, which showed that students with good mastery of English were more likely to use sophisticated reading strategies, e.g., support and global reading strategies which are the strategies that put more demand on the language skill or the cognitive demand (Al-Rubaye, 2012).

The results and findings of the study showed that support reading strategies were the second most frequently used strategies by the students after problem-solving strategies. High-rated reading strategies reveal that the most frequent reading strategies were taking notes while reading, paraphrasing to understand the text better, underlining or circling information to better keep the message in mind, and reading aloud when encountering difficult text. The high frequency of these strategies shows that the students have realised the benefits and how helpful these strategies can be in

comprehending the text, as students tend to put more effort into reading and taking notes to remember the material (Al-Rubaye, 2012; Banditvilai, 2020; Bria & Mbato, 2019). Furthermore, these observed strategies help students to better assimilate the information that they are reading. The strategies of underlining or circling information can be seen as a visual aid to memory and reading aloud as an auditory reinforcement of memory when a word or sentence is difficult to read (Katzenell, 2023).

Conversely, moderate-rated strategies, including asking questions; considering information in English and Arabic; going back and forth to understand relationships among ideas; translating from English to Arabic; and using reference materials, were widely adopted by moderate frequencies, showing mixed usage but also potentially of improvement. For example, asking questions signifies a certain level of critical thinking. Moderate frequencies of bilingual thinking and translation strategies indicate that guidance may be necessary to find the optimal balance for language immersion versus comprehension (Li & Yuan, 2022; Proctor et al., 2020).

However, the presence of support reading strategies use, such as the use of paraphrasing and flipping back and forth in the text to look for textual relationships of ideas recorded low levels of usage. The only hurdle to the adequate use of these strategies perhaps lies at the language level of the student (Rianto, 2021). Such strategies require more language and cognitive ability (Ahmadian & Pasand, 2017). That being said, it is possible that Iraqi EFL learners might need to be trained on how to make use of these strategies to better support their reading process (Albazi & Shukri, 2016).

The findings of the study also showed that Iraqi secondary school EFL learners used global reading strategies less frequently compared to the other two types of reading strategies (i.e. support and problem-solving). However, in contrast to the fact that there was no clear frequency in the use of support and problem-solving reading strategies, participants showed a clear tendency to use some global reading strategies with high frequency. For example, one of the global reading strategies which participants reportedly used the most was to think ‘about whether the content of the text relates to the purpose of your reading’, suggesting a purpose-oriented mindset in reading comprehension processes.

Moreover, they demonstrated a high tendency for making intentional decisions during the reading process since they reported deciding what to read closely and what to skim over when reading globally; it seems that they made a more strategic and

selective reading strategy. Typographical features, boldface and italics, were used by Iraqi secondary school EFL learners to identify important information, which indicates that they know text format cues. Using tables, figures and pictures in texts to help readers to understand the text indicates a multimodal reading approach by the learners.

But a couple of global reading strategies were reported with a moderate frequency: for example, participants reported only moderately checking whether their initial assumptions about the text are justified (a sign of a measured confidence versus cautiousness in reading); only moderately checking how a text is organised and is going (a sign of awareness of structural and technical elements of comprehension); and only moderately analysing provided in the text (a sign of a measured engagement in high-order thinking skills during reading).

The possible explanation why the global reading strategies were the least frequently used strategies for reading among Iraqi secondary school EFL students could be that global reading strategies are more oriented towards top-down approaches deriving from the readers and relying on having a good control over the bottom-up processes of reading such as word identification, syntactic structure comprehension and being able to interpret the text beyond the literal meaning of the text (Nadea, 2021; Suraprajit, 2019). An example of global strategy is the important reading strategy of 'evaluating what is read' (Marboot et al., 2020), which requires understanding more than the surface of the text. If readers find reading the text's basic lines difficult, they would not be able to evaluate and question what is being presented to them. This critical reading strategy was among the least frequently used in the results and findings of the current study, which suggests that using top-down processes are more demanding and require higher proficiency (Nadea, 2021; Oliver & Young, 2016; Stranovská et al., 2020).

Similar explanations might be true for other strategies with low usage frequencies, such as 'using context clues for better understanding' and 'checking text characteristics, i.e., the length, or organisation, etc., of the text'. Being a global strategy, analysing texts is considered to be a late-developing skill that takes a high-level of linguistic proficiency to accomplish (Nadea, 2021; Stranovská et al., 2020). Taking into account the participants' smaller vocabulary, EFL students might choose not to engage in such a cognitively demanding activity (Alzahrani et al., 2021). As for the global strategy 'checking text characteristics', readers expecting to experience some difficulties with words in the first lines of the text are unlikely to choose this option.

Such a reader would often start by decoding the words one by one, and therefore it is unlikely that they would first attempt to consider the text as a whole (Mokhtari & Reichard, 2002).

The findings of the present study are in line with the findings in the literature as well. For instance, Alzahrani et al. (2021) investigated the relationship between reading comprehension strategies and reading performance of secondary school EFL students in public schools in Saudi Arabia. The participants took the reading strategy questionnaire and were asked about whether they used the global reading strategy, the problem-solving reading strategy, and the support reading strategy to cope with the difficulties when reading the English texts. The findings reported that their participants used the most the problem-solving reading strategy when dealing with English texts, whereas they used the support reading strategy the least. Similar findings were reported in the literature as well, where the problem-solving reading strategy was most frequently used among EFL students (Chen & Chen, 2015; Do & Phan, 2021; Par, 2020).

Similarly, the current findings corroborated a study done by Par (2020) on the use of reading comprehension strategies and its relationship to reading performance. The participants included 56 university EFL students from Indonesia who were required to answer a questionnaire stating whether they use different reading strategies to help them perform better in reading comprehension texts. The results showed that participants had a high tendency for the use of different reading strategies. They have a greater tendencies to use the problem-solving reading strategies rather than the global reading strategies or the support reading strategies. Moreover, the more the participants used the problem-solving reading strategies, the more they achieved higher marks in reading comprehension.

Contrary to the previous studies in reading comprehension strategies among secondary school students (Kamaliah & Utaminingsih, 2023), in the present study, participants were asked to fill in a set of questionnaires to indicate the strategies that participants often do in order to overcome the text difficulties. In addition, participants filled in reading comprehension tests to examine the relationship between the reading strategies and achieving reading comprehension. The statistical results showed that the participants often use global reading strategies comparing to the problem-solving strategies or the support reading strategies.

Likewise, the findings of the present study are in contrast with previous reports on the reading comprehension strategies used by university-level learners. For example,

Al-Rubaye (2012) investigated the reading comprehension strategies used by Iraqi university students studying in the US. The study involved 115 students. The findings revealed that reading strategies used by Iraqi EFL students were mainly global reading strategies rather than problem-solving or support reading. Al-Rubaye (2012) concluded that Iraqi EFL students are good strategy users and that, as was also found in the present study, they are familiar with a wide range of reading strategies to cope with complex texts.

Similarly, Hatami and Asl (2017) investigated reading comprehension strategies used by advanced Iranian EFL students. A total of 110 participants answered the metacognitive awareness inventory of reading strategies to measure their preferred strategy in their reading comprehension, namely problem-solving, support, and global reading strategy. Their statistical analysis indicated that participants preferentially used support reading strategies more than other reading strategies. However, since the participants were at the 'advanced' level of English proficiency, it is possible that those participants were able 'to recruit strategies that feature higher demands on metacognitive and cognitive resources than those that lower-proficiency participants can recruit' (Nadea, 2021).

In light of these differences concerning the preferred reading strategy that EFL students often use, one can speculate that there is no reading comprehension strategy that high school students and university students use whenever they are confronted with reading passages. Rather, the use of reading strategies might simply be contingent on multiple variables including cultural contexts, educational contexts, language learning approaches, instructional methods, learner differences, assessment needs and text types and genres (Clark, 2020; Grabe & Stoller, 2019; Hedgcock & Ferris, 2018; Schunk, 2023; Zimmerman, 2023). Based on Bandura's Social Cognitive Theory (Bandura, 1977), learning primarily takes place through the observation of other people, the modelling of behaviours, and reciprocal interaction. In the context of the present study, learners observe and model the ways in which their teachers and peers engage with the task of reading comprehension, and what teachers do when setting explicit goals to achieve a specific reading outcome. For novice learners, this explicit approach and modelling may be more dominant, since they are entirely dependent on the teacher for instruction and support (Bandura, 2001).

5.3 Vocabulary Size of Iraqi Secondary School EFL Learners

Vocabulary size is an important factor in language acquisition and a critical component of language comprehension and communication. Individuals learning English as a foreign language are well aware that their limited vocabulary may pose significant challenges to their language comprehension (Brooks et al., 2021). This lack of vocabulary not only hampers language comprehension but also impedes language production (Nation, 2001; Nation, 2012).

The second research objective of this study, as stated in Chapter 1, was to find out whether or not Iraqi secondary school EFL students have a vocabulary size which is proportionate to their schooling grade. One of the most frequently used instruments for testing vocabulary size of EFL learners is the Vocabulary Size Test (Beglar and Nation, 2013). It categorizes vocabulary size into different frequency classifications. The participants of the study had to read 40 short sentences and to choose from three options the nearest meaning that could represent the words underlined in the following questions. The highest score that the test can attain is 40 and the lowest score that the test can reach is 0. Consequently, higher scores on the test signify higher vocabulary size and vice versa.

The findings from this study, utilizing Beglar and Nation's vocabulary size test, provided valuable insights into the vocabulary proficiency of secondary school students in Iraq. The average score for participants' vocabulary size was 25, suggesting that Iraqi secondary school EFL learners have approximately 2500 words in their lexicon. However, upon a closer examination of the participants' scores in the test, the results revealed that there were individual differences in participants' vocabulary size, with scores ranging between 8 and 40.

Further exploratory analyses that aimed to subgroup participants based on a scale ranging from "low" to "high" vocabulary indicated that the majority of participants (51.1%) demonstrated an "intermediate" level of vocabulary size, suggesting a reasonable command of vocabulary within this group of students. Additionally, 27.5% of students fell within the "high" vocabulary size category, indicating a commendable level of lexical knowledge. However, it is crucial to address the concerns raised by the 15.2% of students with a "very high" vocabulary size, as well as the 5.6% with a "low" and 1% with a "very low" vocabulary size. These percentages underscore the existence of both high achievers and those in need of additional support.

Milton and Treffers-Daller (2013) claim that 'recent studies have all provided a basis for determining the minimum number of words needed to perform a certain language function.' They argued that EFL learners need no more than 2,000-3,000 of the most common English words to take part in conversations at an everyday level, while a vocabulary of around 5,000 words is needed for the beginner to start reading real texts (Schmitt, 2007), and around 10,000 words for beginning an academic degree course (Hazenberg & Hulstun, 1996).

Similarly Adolphs and Schmitt (2003) reported that students of EFL in pre-university levels need to have a lexicon of 2000-3000 of the most frequent words to communicate in their daily life, and Schmitt (2007) claimed that 5000 words is the required vocabulary level for EFL learners to read authentic written texts. The findings of the study revealed that Iraqi EFL learners had an overall vocabulary of 2500 words which is considered a desirable level of vocabulary though differences between participants' vocabulary were recorded. Some participants were able to respond correctly to all items of the test while others failed to respond correctly to most of test items.

The findings of the present study is in line with the one conducted by Alzahrani et al., (2021) who investigated vocabulary size among 108 high school EFL students in Saudi Arabia. In line with the present study, the participants of Alzahrani et al.'s research were also asked to complete the Vocabulary Size Test (VST) of Beglar and Nation, but with a 5000-word frequency requirement instead of the VST with a 4000-word frequency test that was used in the present study. Alzahrani et al. (2021) reported that, in general, the vocabulary size of Saudi EFL learners was 2,025 word families, i.e., a little bit lower than the vocabulary size reported among the Iraqi secondary school EFL learners in the present study.

Similarly, Mohammed and Alwadai (2019) measured the accuracy of 80 Saudi EFL secondary school students using Paul Nation's Vocabulary Levels Test (VLT). The results showed that the mean vocabulary level of Saudi EFL secondary school students was at the 1,000 frequency level, which means they could not read an average text. Their study emphasised that the vocabulary size is an important factor in teaching and learning for both secondary school teachers and students.

From the bottom-up model perspective (Birch & Fulop, 2020; Gough et al., 1972), which focuses on decoding individual words and their syntax , vocabularly size within the students is a crucial factor. The vocabulary test scores within the present

study reflect the participants' ability to recognise individual words – a foundational part of the bottom-up reading process. In this reading process, students with higher vocabulary sizes, especially those with 'high' and 'very high' vocabulary sizes, are more likely to successfully decode the words within the text. Thus, they are more likely to be able to access the meaning of the text through bottom-up decoding. On the other hand, students with smaller vocabulary sizes are likely to have difficulties in decoding the words that they have not seen before, and this would lead them to have poorer bottom-up reading skills.

Notably, 51% of students were judged to be in the 'intermediate' range, thus suggesting that they might have a good word knowledge but limitations in the breadth of their vocabulary might impede their reading comprehension. Intermediate thus suggests an in-between place, moderate familiarity with words but one that might not yield the broad and rich vocabulary that is required to access more sophisticated and nuanced texts, and thus to comprehend them fully. As a result, these students might struggle when they encounter more complex vocabulary in academic texts and literature, and this might even contribute to their reading comprehension (Fan, 2020; Firda & Azkiyah, 2021).

Those students in the 'high' vocabulary category – 27.5% of the total – might be predicted to show better linguistic comprehension, leading to better reading comprehension outcomes (Al-Khasawneh, 2019). This subgroup should have higher lexical richness, which might in turn assist them to negotiate the meanings of more complex and cognitively demanding texts (Beglar & Nation, 2013). Similarly, the 15.2% of students in the 'very high' vocabulary category might be predicted to show an even more sophisticated ability to understand nuanced language (Schmitt, 2010). This subgroup should be adept at comprehending difficult vocabulary and, in turn, may be positioned to excel on tasks that might require deeper understanding of complex reading materials.

But the 5.6% of students who fall into the 'low' vocabulary size and the 1% who fall into the 'very low' vocabulary size may face problems that go beyond basic decoding skills. In these subgroups, the lack of lexical knowledge could impose significant obstacles to participants' comprehension of texts, especially those containing unfamiliar and advanced vocabulary (Al-Khasawneh, 2019; Alzahrani et al., 2021). The consequences go beyond word recognition; students with low and very low vocabulary sizes may not be able to fully grasp the nuances of meaning and linguistic

context as they read. The bottom-up reading model's emphasis on the interaction between decoding skills and linguistic comprehension is especially transparent in these cases. These students' challenges require a multidimensional approach that goes beyond basic decoding activities to include lexical knowledge and vocabulary acquisition interventions that directly target linguistic comprehension (Bueno-Alastuey & Nemeth, 2022; Thompson & von Gillern, 2020).

There is one clear implication that can be drawn from these findings, which relates to the status of English as a foreign language in the Iraqi education system (Altae, 2020; Amin, 2017). The frequency of 'intermediate' level vocabulary among the majority of students supports the argument that exposure and use of English in daily life exert an impact on the nature of the vocabulary that students acquire. In contrast to students who are exposed to English as their first or most-used language, students in Iraq may not be able to amass a large repertoire of words because of the restricted use of English in their social context. This suggests that the linguistic context and language status of English as a foreign are key factors in terms of the level of proficiency that students are able to achieve.

In conclusion, the vocabulary size test results offer an opportunity for reflection on teaching and learning in Iraq. Teachers can increase vocabulary acquisition in a context where English is a foreign language. A holistic approach, including living situations, learning activities, technology, books, vocabulary lists, pictorial aids, and culture, may facilitate a full language learning experience for public secondary school EFL students in Iraq.

5.4 Relationship Between Reading Strategies, Vocabulary Size, and Reading Comprehension

The relationship between reading strategies, vocabulary size and reading comprehension is complex and dynamic. Although these variables are important to developing reading comprehension (Al-Khasawneh, 2019; Al-Nujaidi, 2003; Muhid et al., 2020), there was a paucity of research examining how they affect the reading ability of Iraqi secondary school EFL learners. The third goal of the current study examined the effect of both reading strategies and vocabulary size on reading comprehension, and results showed that they had significant contributions. The next subsection discusses the findings in detail.

5.4.1 Relationship Between Reading Strategies and Reading Comprehension

One of the fundamental assumptions of the relationship between reading strategies and reading comprehension is that reading strategies are the tools readers rely on to understand the overall meaning, organisation and purpose of the reading text. In the present study, the findings and results revealed that the Iraqi secondary school EFL students used reading strategies with different frequencies, where the problem-solving reading strategy was the mostly used reading strategy among the participants, followed by both the support and the global reading strategies. However, the correlation analysis between reading strategies and students' reading comprehension showed that only the problem-solving reading strategy significantly contributed in the students reading comprehension score. The participants who used the problem-solving reading strategies more frequently showed significantly higher score in the reading comprehension test.

These results are consistent with recent findings in the literature. For example, Par (2020) investigated the relationship between some reading strategies and the reading comprehension performance of Indonesian EFL students. To determine whether they used these reading strategies or not, a total of 56 students majoring in EFL at a university in Indonesia completed the SORS questionnaire of Mokhtari and Sheorey (2002). The students' reading comprehension performance was measured by the Reading Comprehension Test (RCT) consisting of 35 multiple-choice questions. The results indicated that Indonesian EFL students were good strategy users, and preferred to use problem-solving reading strategies more frequently than supporting and global reading strategies. Moreover, the relationship analyses indicated that students' scores on reading performance were significantly correlated with their total strategy use, and the problem-solving reading strategy was a significant predictor of reading comprehension performance.

Likewise, Do and Phan (2021) used reading strategies, problem-solving, global and support reading strategies) with 123 English major undergraduate students from Hong Bang International University to examine the relationship between reading strategies and reading comprehension. Participants were required to take a comprehension test after. The results indicated that there was a significant relationship between reading strategies and reading comprehension. Also, similar to the present study, the reading strategies were used at a moderate level among the participants;

problem-solving strategies were the most frequently used reading strategies, followed by support and global reading strategies.

Although there is a significant relationship between problem-solving reading strategy and reading comprehension in the current study, it was found that there was no significant relationship between support reading strategies and reading comprehension; and there is no significant relationship between global reading strategies and students' performance in reading comprehension. The lack of a significant relationship between support and global reading strategies and students' performance in reading comprehension can be ascribed to individual differences in learning styles and cognitive abilities. It could also be that students have not been adequately exposed to the strategies or the strategies themselves may not be appropriate to the text genre or the level of difficulty of the text presented to the students.

Another possible reason for the lack of a significant correlation between the support and the global reading strategies with reading comprehension may be that the cognitive demands of the support and the global reading strategies are higher, involving more cognitively demanding activities such as synthesising information, making connections and understanding the macro structure and the text's global purpose. This could pose further problems for EFL secondary school students in employing these types of cognitive-complex strategies, as their limited proficiency with the language may make it difficult for them to carry out these higher-order cognitive activities within a text (at a global level).

It would be sensible to suggest that more proficient readers would be more likely to recruit and benefit from the use of support and global reading strategies than secondary school participants. Higher language proficiency is often associated with a larger vocabulary, stronger mastery of syntactic structures, and better language comprehension skills overall. University students who have advanced past the secondary school level are likely to be more proficient in their language and therefore able to employ more sophisticated reading strategies. They might be better able to decode complex vocabulary, make inferences, and understand complex structure of a text, and therefore be more likely to recruit the demanding, more cognitively complex strategies of interest.

However, the global reading strategy did not predict their reading comprehension at all, presumably because this was the least frequent strategy in their

reading. Ahmadian and Pasand (2017) explain that this strategy is more cognitively demanding because the decisions required are at an intermediate level that can fail.

The findings of the study suggest that performing problem-solving strategies during the reading process was necessary to improve text understanding among Iraqi EFL students. They seemed to rely on strategies associated with slow reading techniques and word guessing to increase their understanding. These strategies also seemed effective in improving their reading score. According to Albazi and Shukri (2016), educators should increase students' awareness of the reading strategies in order to improve their reading comprehension performance.

Although reading slowly and carefully was a simple strategy in the problem solving approach, it is possible that this strategy may not be sufficient for enhancing the participants' understanding of the reading text, because other problem-solving strategies, such as getting back on track to focus concentration, adjusting reading speed, stopping periodically to consider the text, paying closer attention to reading, visualizing information, or re-reading text are also construed important in increasing text understanding and, consequently, improving their reading performance.

According to the results of the study, the Iraqi students were high strategy users on the problem-solving strategies. The participants seemed to rely on strategies such as giving heightened attention to challenging parts in the reading text, visualizing information for better retention, guessing the meaning of unfamiliar words or phrases, and reading at a slower pace to enhance understanding. Although these strategies need less cognitive efforts than global strategies and support reading strategies, they are effective during the reading process. These students need to be provided with adequate training of how to use these strategies to improve their reading performance to leverage more effective reading outcomes. In short, raising students' awareness of reading strategies can lead to a more efficient reading comprehension (Hasan 2015).

Putting it briefly, the EFL learners of Iraq have to exert big efforts on enhancing their global reading strategies in terms of the strategies that they have to apply when reading, like inferencing, analysing, or evaluating the reading text, or guessing the meaning, or by using the other sources of meaning or clues in typography to get more understanding and as a result, to achieve more successful reading performance. This corroborates the results that Fathi and Afzali (2020) have pointed out who have mentioned that training on the utilisation of reading strategies can successfully lead to enhancement in reading performance.

While it could be argued that text type can influence the kinds of strategies readers may *choose* to activate, this relationship is not deterministic. Research in L2 reading consistently shows that strategy use is shaped by a combination of factors—reader proficiency, task purpose, prior knowledge, and individual processing preferences—not by text genre alone (Anderson, 2003; Block, 1992; Grabe & Stoller, 2020).

Thus, a narrative text does not automatically produce more global strategies, nor does an argumentative text necessarily guarantee more problem-solving strategies. Instead, readers flexibly draw upon whichever strategies they believe will support comprehension at a given moment.

In the present study, the two PET reading passages elicited a wide range of SORS strategy categories—including global, problem-solving, and support strategies—because the tasks required participants to infer meaning, monitor comprehension, resolve lexical uncertainty, and integrate information across sentences. These cognitive actions are not exclusive to any specific text genre but represent core comprehension processes common to all reading types (Koda, 2005).

Therefore, the observed variation in strategy frequency among SORS categories reflects readers' individual strategic repertoires and proficiency-related preferences, rather than a limitation of the text types used in the test.

5.4.2 Relationship Between Vocabulary Size and Reading Comprehension

Vocabulary size refers to the total number of words and their meanings that an individual is familiar with or possesses knowledge of. Vocabulary size plays a crucial role in the process of comprehending a text because it is the pathway to comprehending the reader's reading. Vocabulary size is strongly correlated with reading comprehension, which is a fundamental component of language development and academic success (Al-Khasawneh, 2019; Dong et al., 2020; Lawrence et al., 2022; Zhang & Zhang, 2020). A large vocabulary repository helps readers understand the meaning of the text, which in turn is conducive to improved reading comprehension skills.

The aim of the study was to investigate the relationship between vocabulary size and EFL learners' reading comprehension of Iraqi secondary school students. Belgar's and Nation's vocabulary size test instrument was used to test participants and a number

of reading comprehension questions were administered to them. The study showed a positive and significant relationship between vocabulary size and reading comprehension. This implies that vocabulary size tends to affect reading comprehension test results positively, in the sense that the more robust the vocabulary knowledge of students, the higher their level of performance and understanding in reading comprehension test, while those who suffer from a poorer vocabulary knowledge tend to perform inferior in the reading test.

Several studies found that students with more vocabulary size are more likely to show a better understanding of the text. This result has been corroborated by other reports (Al-Nujaidi, 2003; Alzahrani et al., 2021; Dagnaw, 2023; Dong et al., 2020). For example, Alzahrani et al. (2021) examined the relationship between vocabulary size and reading comprehension among Saudi secondary school EFL students. Their participants' characteristics were similar to the participants in this study in the sense that they were native speakers of Arabic from Saudi Arabia and they do not use the English language frequently in their daily life. Participants were asked to take the same vocabulary size test designed by Beglar and Nation and their performance in the vocabulary test was analysed against the correlation of the reading comprehension performance. They found that the majority of the participants (90%) had 'low' vocabulary size (1200 word-frequency family) and there was a significant relationship between the participants' vocabulary size knowledge and the reading comprehension performance.

Similarly, Ibrahim et al. (2016) examined the link between students' reading comprehension skills and the number of words they know. The research involved 129 pre-university students in an intensive English language program at a Malaysian public university. The study used correlational analyses to determine the relationship between the scores in reading comprehension and vocabulary size tests. According to the Pearson correlation coefficient, there was a statistically significant and positive relationship between scores in reading comprehension and vocabulary size tests.

In the same vein, Şen and Kuleli (2015) sought to investigate the influence of vocabulary size and depth on reading performance in an EFL setting. A total of 361 university students participated and took tests such as the Vocabulary Size Test by Beglar and Nation (2007). According to the analyses, through linear regression and Pearson correlation statistics, it was found that both vocabulary size and depth had significant correlations with reading performance. However, the findings indicated that

vocabulary depth was a stronger predictor of reading performance compared to vocabulary size.

More recently, Masrai (2019) focused on the extent to which levels of vocabulary knowledge, especially, high-, mid-, and low-frequency-based levels, can predict L2 reading comprehension. A group of 256 tertiary-level Arab learners of English participated by taking a vocabulary size test and a reading section from the International English Language Testing System (IELTS). The results and findings indicated that both high- and mid-frequency word levels uniquely contributed to L2 reading comprehension.

As such, the results of the present study largely support previous findings and all existing theories of reading. The Interactive Model of Reading proposed by (Samuels & Kamil, 1988) highlights the complex interaction between the reader, the text and the context. In it, vocabulary is considered a major contributor to both bottom-up and top-down processing. A rich vocabulary enables more efficient word decoding and a smoother integration of higher-level cognitive processes that allow for overall comprehension of the text.

Overall, the significant correlation between the size of of reading comprehension found be explained by the basic theories and models of reading the literature. The findings confirm the importance of learners' vocabulary knowledge to reading comprehension due to the relationship of reading and vocabulary being so interwoven and dynamic. These findings suggest that those who teach, research, and work with EFL learners need to students' vocabulary if reading comprehension skills.

5.5 Self-Efficacy

The first level of examination of the self-efficacy of Iraqi secondary school EFL learners in the current study demonstrated that the learners scored high in self-efficacy. Observable progress and social feedback were the top two sources of self-assessment of self-efficacy in reading, followed by observational comparison and psychological state with moderate levels. The level of increased self-efficacy among the learners means that the learners view their reading aptitude in a positive way. The positive self-appraisal provides a basis for further investigations into the specific sources of self-efficacy related to reading comprehension among Iraqi secondary school EFL learners.

5.5.1 Progress Monitoring

The findings of the study demonstrate that Iraqi secondary school students exhibit a strong sense of self-efficacy regarding progress monitoring. The substantial mean scores on all survey questions demonstrate that students notice significant enhancements in their reading skills through time. The top-rated statement "I read faster than I could before" (M = 4.65, SD = 0.478) demonstrates student awareness of improved reading speed which represents an essential element of reading fluency. Students indicate that reading activities have become simpler for them (M = 4.54, SD = 0.963) while they also acknowledge an improvement in their word recognition abilities (M = 4.53, SD = 0.768). Students show progress in their reading abilities by developing faster reading speeds and better word recognition while also gaining improved comprehension and greater confidence with text materials.

Success in language learning depends heavily on self-efficacy because learners with high self-efficacy show improved motivation and persistence and become more engaged with their learning tasks (Pajares, 2003). Tangible progress in reading skills strengthens students' belief in their ability to understand texts. Earlier investigations demonstrate that awareness of personal learning progress leads to better attitudes toward education and improved academic results according to Usher and Pajares (2008). EFL students who lack English exposure outside their academic settings must self-monitor their progress to keep their motivation high and ensure ongoing development (Teng & Zhang, 2020).

The learners' enhanced reading speed stands out as significant because reading fluency forms the basis of effective reading comprehension. Reading fluency allows readers to understand text quickly which helps them use their mental capacity for better comprehension (Kim et al., 2021; Rasinski, 2012). Students believe they are gaining reading fluency through the results which leads to increased confidence when they face more difficult texts. Research findings indicate strong correlations between self-assessed reading fluency and overall reading skill levels. Students who recognize their improvement in reading skills tend to become more active in reading activities which results in better fluency and understanding according to Zimmerman and Schunk (2013).

The results revealed that participants felt their vocabulary knowledge had improved. A high mean score of 4.53 (SD = 0.768) for the statement "When I read, I

recognize more words than I used to" demonstrates student awareness of their expanding vocabulary. Expanding vocabulary plays a key role in reading comprehension because readers with more extensive vocabularies experience higher levels of understanding and confidence when interpreting texts (Beglar & Nation, 2013). Students' expanding vocabulary knowledge results from frequent word encounters during reading exercises and targeted vocabulary lessons. According to research, students who interact actively with reading materials naturally build a more extensive vocabulary as they progress through their learning (Li et al., 2021; Schmitt, 2008).

The findings demonstrate students' growing ability to read independently since they show less need for outside help. The response "When I read, I need less help than I used to" (M = 4.45, SD = 0.864) demonstrates that learners are developing greater independence in their reading tasks. The concept of self-regulated learning describes how students direct their learning journey through goal setting and self-monitoring combined with self-reflection according to Zimmerman (2023). Learner autonomy must be developed within EFL settings because it allows students to independently create strategies for reading problem-solving (Oxford, 2016). Students who become aware of their advancement in reading develop the confidence needed to complete reading tasks without relying on teachers or peers.

The data demonstrates that Iraqi EFL students feel their reading comprehension has improved because their mean score for "I understand what I read better than before" reached 4.39 with a standard deviation of 0.832. The main objective of reading is comprehension while developing self-efficacy in this domain proves essential for school achievement. Students demonstrate progress in their reading capabilities as they become better at processing and understanding texts. Earlier research demonstrates that students who have higher self-efficacy levels in reading typically show better reading performance (Guthrie et al., 2012). Students who have confidence in their ability to understand texts tend to participate in reading activities more frequently and use comprehension strategies that improve their understanding (Bozgun & Can, 2023; Cho et al., 2021).

The results also show that the participants make less effort during reading in the present compared to the past (M = 4.34, SD = 0.914) which indicates that reading tasks require less mental effort and are becoming more automatic. According to Grabe and Stoller (2019), developing reading skills reduces cognitive load during decoding and

comprehension which transforms reading into a more enjoyable and less demanding experience. This stage marks a crucial point in reading development because students progress from reading with difficulty towards achieving fluent and efficient text processing.

The participants of the study also displayed strong self-belief about their reading abilities. This finding is promising because students who exhibit strong self-efficacy tend to establish lofty objectives and maintain their determination through obstacles to reach greater academic accomplishments (Bandura, 1997). According to the results, students are acquiring a growth mindset which enables them to understand their abilities and can thus progress with dedicated practice and effort (Dweck & Leggett, 1988). In the study of languages this mindset proves essential because progress occurs step by step and demands long-term commitment.

These findings of the study present important consequences for developing language teaching methodologies. Teachers can strengthen students' self-efficacy beliefs by creating structured reflection opportunities about their learning progress. Through the use of self-assessment activities along with learning journals and goal-setting exercises students become more aware of their progress that in turn motivates them to continue advancing (Fathi et al., 2024; Graham, 2022). Encouraging students to value progress over achievement in the classroom helps maintain their motivation and confidence in their capabilities.

Previous studies demonstrate that students benefit from reading materials and tasks which offer an appropriate level of difficulty and can be achieved by students. When students regularly succeed in their reading tasks their belief in their own capabilities will grow stronger (Alharbi, 2021; Almohammadi, 2023; Apriliyani & Usuludin, 2023; Usher & Pajares, 2008). Therefore, educators can facilitate student success through scaffolding methods which include teaching vocabulary before reading, applying comprehension techniques and progressively challenging students with more complex texts. The reinforcement of self-efficacy beliefs also requires consideration of how social support functions. This study examined self-efficacy through personal progress observation yet external feedback from teachers and family members additionally strengthens students' self-perceptions. Students benefit greatly from praise and attention from important people in their lives which helps them keep progressing in reading abilities (Wang et al., 2022).

5.5.2 Social Feedback

The findings of the study demonstrate how social feedback functions as a critical factor in developing Iraqi secondary school students' self-efficacy for reading comprehension. Students develop their views about reading proficiency through both personal progress monitoring and confirmation from family members, educators, and classmates. The mean score for self-assessment of progress was the highest (M = 4.46, SD = 0.595), suggesting that students rely primarily on their own experiences to gauge their reading proficiency. However, social feedback also played a substantial role (M = 3.68, SD = 0.671), indicating that while students develop a sense of self-efficacy through personal experiences, external validation remains an important factor in reinforcing or challenging these beliefs.

The influence of social feedback in language learning has been widely documented. According to Bandura's (1997) social cognitive theory, self-efficacy is constructed through four primary sources: mastery experiences, vicarious experiences, social persuasion, and physiological/emotional states. Social feedback falls under the category of social persuasion, where encouragement, validation, or criticism from others can shape an individual's confidence in their abilities. In EFL contexts, where learners often face challenges such as limited exposure to authentic English and anxiety about their proficiency, positive social feedback can serve as an essential motivator. The fact that students in this study reported moderate reliance on social feedback suggests that while it is a key factor, it does not overshadow their self-observation of progress. This finding aligns with previous studies (Hetthong & Teo, 2013; Wang & Pape, 2007), which indicate that learners with higher self-efficacy tend to develop their own standards for evaluating their progress while still valuing external validation.

The results also show variation in the sources of social feedback. Family members were perceived as the most supportive figures in students' reading development, with the highest mean score (M = 4.20) related to family thinking the student reads well. This finding emphasizes the role of parental support in shaping self-efficacy, which is consistent with studies on family influence in EFL learning (Pajares, 2006). In many Iraqi households, English is not commonly spoken, yet parents' encouragement and belief in their children's abilities can significantly boost motivation. Parental validation can contribute to the development of a positive self-concept in reading, even in cases where parents themselves may not be proficient in English

(Rohmalimna et al., 2022; Sutter & Campbell, 2022). In contrast, students were slightly less confident that their peers recognized them as strong readers (M = 3.13), suggesting that peer validation plays a lesser role in reinforcing self-efficacy compared to family and teachers.

Teacher feedback emerged as another crucial determinant of reading self-efficacy. The perception that teachers think students' reading is fine received a high mean score (M = 4.15), indicating that students value their teachers' assessments of their abilities. This finding supports research by Zimmerman & Schunk (2011), which emphasizes that teachers' positive reinforcement and encouragement significantly influence learners' self-beliefs. However, the students show some uncertainty about their teachers' genuine interest in their reading abilities through their lower average scores for statements like "I can tell that my teacher likes to listen to me read" (M = 3.56). The gap between feedback effectiveness suggests teachers need to combine positive feedback with active listening and individual attention alongside non-verbal encouragement like smiling to support struggling readers better.

The results also demonstrated that peer feedback plays a significant role in students' self-efficacy development. Some students reported their peers enjoyed listening to their readings (M = 3.72), whereas others felt unsure about their classmates considering them proficient readers (M = 3.13). The reading peer feedback process shows both positive and negative outcomes for students. Positive feedback helps build confidence but classmates' indifference or criticism can create anxiety while reducing self-efficacy. The studies conducted by Dornyei and Ryan (2015) and Mercer (2018) show that students who experience supportive peer interactions show higher reading engagement and improved motivation. Peer judgment perception causes students to develop reading anxiety which reduces their confidence and leads to bad performance outcomes. Educators must create cooperative learning environments that support peer collaboration through activities such as group reading sessions and interactive feedback discussions along with collaborative learning discussions.

The results of the study highlighted the complex connection between social feedback and self-efficacy development. Students appreciate external validation but primarily depend on their self-assessment of their personal growth. Educational research shows that teachers need to integrate self-directed learning practices into warm and supportive classroom environments (Saleem et al., 2024). Students use formative assessment techniques to track their learning advancement through feedback from

teachers and classmates (Elbasyouny, 2021). Teacher-guided self-reflection tasks help students evaluate their reading progress while setting goals through comparison of their current abilities and past achievements. Active self-monitoring of learning progress according toSchunk and DiBenedetto (2020) enables students to develop stronger beliefs in their academic capabilities.

The results further indicated that both cultural elements and environmental contexts shape self-efficacy development when learning English as a Foreign Language through reading. English EFL students in Iraq face restricted reading practice opportunities outside their classrooms because it functions as a foreign language rather than a second language. Students depend on teachers and family members to confirm their progress which makes external validation essential for them (Bandura, 1982). The way students interpret feedback can depend on cultural influences. Students might minimize their successes because their culture values modesty but other students experience stress to fulfill their teachers' or parents' elevated expectations. When developing interventions to improve self-efficacy, it is essential to take into account the prevailing cultural dimensions (Chen et al., 2021). Teachers have the ability to develop educational environments which prioritize student effort and step-by-step improvement instead of just performance results. Research in motivational psychology by Urhahne and Wijnia (2023) supports this approach to help students build resilience together with intrinsic motivation.

EFL teaching methods can benefit from these research results. Since social feedback plays a crucial role in developing self-efficacy, teachers need to apply methods that deliver regular and personalized feedback to students. When delivering praise students should receive targeted feedback that acknowledges their strengths and provides clear directions for how they can further develop their skills (Bürgermeister et al., 2021; Cui et al., 2021). Peer feedback exercises need to be designed so that they foster supportiveness instead of competition among students. Teachers should facilitate peer mentoring programs where proficient readers assist their less skilled classmates without passing judgment. Students' reading self-efficacy improves when parents participate in literacy programs and use positive reinforcement at home (Sutter & Campbell, 2022).

All in all, this study offers important knowledge about how social feedback impacts the reading self-efficacy of EFL students. The students use their personal evaluation of reading progress but receive significant confidence boosts from family

members, teachers, and peers who provide external validation. Students receive the most important reading support from family members which is followed closely by teacher encouragement. Peer feedback helps certain students but its impact remains unpredictable due to the influence of classroom interactions (Bürgermeister et al., 2021). Educators ought to establish a supportive learning setting that provides students with constructive feedback from various sources and teaches them how to develop self-regulation in learning (Philip, 2018). When EFL instructors employ these methods, students would develop better self-efficacy for reading which results in higher engagement levels and academic achievement in English language studies (Fathi et al., 2024; Jiang, 2023).

5.5.3 Observational Comparison

The results of the study revealed how Iraqi secondary school students evaluate their reading self-efficacy when they assess their skills compared to their classmates. In educational environments, students develop self-efficacy through their personal experiences as well as through comparing their capabilities with peers (Bandura, 2012). Students' academic motivation and learning behaviors depend heavily on their self-efficacy which emerges from comparing their abilities to those of their peers (Schunk, 2023; Schunk & DiBenedetto, 2020). Students demonstrate high confidence in their vocabulary skills and decoding abilities but show less certainty about their reading fluency, comprehension, and reading speed when compared to their classmates.

According to self-efficacy theory (Bandura, 1986), EFL students measure their own abilities by comparing their performance to that of others in equivalent situations. The participants of the study demonstrated strong confidence in their vocabulary abilities compared to their classmates based on their responses to the highest-rated self-efficacy items "I seem to know more words than other students when I read" (M = 3.76, SD = 1.170) and "When I read, I can figure out words better than other students" (M = 3.76, SD = 1.016). Students who recognize their own excellence in certain areas develop self-efficacy which then strengthens their motivation to read according to Bandura's (1997) study. Reading success depends on word recognition and decoding ability because students who feel confident in these skills tend to challenge themselves with complex materials and persist through tough reading situations (Cho et al., 2021; Schunk, 2023; Schunk & Pajares, 2002).

However, self-efficacy built on comparison is not necessarily stable because it relies on external benchmarks (Schunk, 2023). When students perceive their vocabulary skills to exceed those of their classmates, their confidence enables them to engage more actively in reading activities. Their self-efficacy becomes unstable when they interact with peers who have better language skills according to Usher & Pajares (2008). The development of self-efficacy should focus on personal mastery experiences because confidence built through mastery provides lasting results.

The participants if the study demonstrated only moderate confidence levels when they evaluated their reading comprehension skills in comparison to their classmates. Students perceive their reading comprehension skills as equal to their classmates but do not consider themselves superior in this area. According to self-efficacy theory, students assess their capabilities through personal success in tasks and by watching others complete similar tasks (Jin et al., 2023; Zimmerman, 2000). Students who demonstrate moderate comprehension self-efficacy understand that comprehension requires more than simple vocabulary knowledge because it is a complex ability. Students understand comprehension requires processing sentence structures and making inferences while thinking critically which leads them to question their superiority because they believe their peers have equal abilities in these areas (Paige et al., 2024).

The participants' moderate self-efficacy could result from the way they receive instruction. Many EFL classrooms measure students' comprehension abilities through structured tasks that prioritize correctness over deep understanding (Grabe & Stoller, 2019). Students who undergo repetitive testing that emphasizes correct or incorrect answers instead of interpretive understanding may doubt their ability to demonstrate superior comprehension compared to their classmates. The environment created by classroom discussions combined with peer interactions shapes how students view their comprehension abilities. Students who regularly meet classmates who express sharp interpretations might start to perceive themselves as less extraordinary despite strong comprehension skills.

The concept of observational self-efficacy received validation as the participants expressed moderate confidence in their reading abilities when compared to their peers. Students who agree with the statement "I read better than other students in my class" ($M = 3.56$, $SD = 1.025$) show confidence in their reading abilities without asserting superiority over others. Students expressed moderate self-efficacy beliefs

about their reading frequency ("I read more than other students", M = 3.42, SD = 0.949) and reading speed ("I read faster than other students", M = 3.40, SD = 1.209). Students acknowledge specific reading strengths but show restraint when asserting overall reading superiority.

The moderate confidence students demonstrate about their reading abilities could stem from the way classroom interactions take place. Students who regularly participate in group reading sessions where they compare their reading rates to others tend to develop self-assessments that show a realistic perception of their abilities (Bandura, 1986). Students who measure their reading abilities against peers who achieve more tend to underestimate their own reading speed and frequency even though they meet objective performance criteria (Schunk & DiBenedetto, 2020).

Consistent reinforcement from teachers or classmates regarding reading proficiency helps students build stronger self-efficacy beliefs (Pajares, 2003). When students receive mixed or unclear feedback, they face difficulty in evaluating their reading abilities compared to their classmates. Students in Iraqi EFL classrooms that use teacher-centered instruction may depend more on formal evaluations from teachers instead of peer comparisons to determine their reading capabilities. Students demonstrate moderate self-efficacy in their reading comprehension and speed because they receive insufficient comparative feedback which prevents their self-efficacy from reaching higher levels.

These results present significant considerations for developing effective language teaching strategies. Students build their self-efficacy by making comparisons which implies that teachers need to establish classroom settings that facilitate beneficial and supportive comparative experiences. Teachers should replace competitive environments which could decrease some students' self-belief with peer modeling techniques where students learn through observation of their more skilled peers in an encouraging setting (Guthrie et al., 2012). Students develop stronger observational self-efficacy while cultivating a growth mindset toward reading proficiency through this approach.

Teachers need to help students develop mastery-based self-efficacy alongside comparison-based self-efficacy by supporting them in creating personalized reading objectives. By helping students monitor their reading development over time instead of comparing themselves to others they can build stronger and more intrinsic self-efficacy beliefs (Liao, 2015; Ryan & Deci, 2020). Research demonstrates that students who

notice their personal gains in reading speed and comprehension develop stronger self-efficacy which is unaffected by how they measure up to others (Peura et al., 2019; Usher & Pajares, 2008). The implementation of regular formative assessments alongside self-reflective journaling and progress-tracking systems enables students to transform their self-efficacy beliefs toward a growth-based framework.

The understanding of self-efficacy beliefs requires attention to cultural influences (Gebauer et al., 2021; Schunk & DiBenedetto, 2021). Students from collectivist cultures such as Iraq typically assess their academic performance by comparing themselves to their classmates instead of evaluating their individual learning progress (Agha, 2014). The practice of students observing their peers will inevitably become a major force in developing their self-efficacy. Educators need to integrate teaching methods that respect cultural norms while promoting both individual achievement and constructive peer comparison (Boutyline & Soter, 2021; Gebauer et al., 2021; Grigoryeva & Zakirova, 2022). Students develop their own reading abilities and build confidence through observing the successes of their peers during group discussions and joint reading activities.

All in all, the study shows that Iraqi EFL students develop self-efficacy in reading by both observing their peers and evaluating their own performance. Students believe they excel in vocabulary and word-deciphering abilities compared to classmates but maintain moderate confidence levels about their comprehension, fluency, and reading speed. Students demonstrate an understanding of their personal strengths alongside their areas needing development which establishes a self-efficacy profile that remains cautious but still balanced. Educators who combine structured peer modeling with mastery-based assessments and culturally responsive teaching methods enable students to build stronger and more resilient reading self-efficacy.

5.5.4 Psychological States

The study revealed how psychological state impacts self-efficacy perceptions within Iraqi secondary school student populations. Reading self-efficacy develops through cognitive skills and comparative assessments but students' confidence and motivation in reading are significantly influenced by their emotional and psychological responses too. Students view themselves as skilled readers who enjoy reading books though their emotional connection and mental ease during reading remain relatively

low. Students report confidence in their reading abilities yet experience mixed emotional responses during reading across various psychological dimensions.

The most highly rated statement "I think I am a good reader" (M = 3.96, SD = 0.999) demonstrates that Iraqi EFL students maintain robust self-efficacy beliefs about their reading skills. Table 4.9 reveals that students demonstrated confidence in both their vocabulary knowledge and word-deciphering capabilities. Students who develop a positive self-view of their reading abilities will read more often and tackle challenging texts with better persistence and increased confidence towards literacy tasks (Bandura, 1997). Research by Schunk (2023) establishes that students who have strong self-efficacy in reading ability achieve higher academically because these students develop intrinsic motivation to read and enhance their literacy skills over time.

Student enjoyment of reading scored high which was evidenced by "I enjoy reading" achieving a mean score of 3.78. Reading functions as both an academic task and a source of enjoyment for numerous students. Reading habits develop effectively through the affective dimension of reading. Students who experience reading enjoyment tend to choose voluntary reading activities which helps to develop their comprehension abilities and reading fluency (Al-Khresheh & Alkursheh, 2024; Jiang, 2023; Schunk, 2023). Reading enjoyment connects deeply with intrinsic motivation because this internal drive helps people maintain their engagement with texts over long periods. Students who read for enjoyment tend to broaden their literary horizons across multiple genres while simultaneously deepening their bond with reading materials and improving their critical thinking skills (Tehrani & Razali, 2018).

Another highly rated item, *"Reading makes me feel good"* (M = 3.72, SD = 1.120), further supports the idea that students associate reading with positive emotions. Positive affective experiences in reading contribute to higher levels of engagement and self-efficacy, reinforcing the idea that reading is not only a skill-based activity but also an emotionally fulfilling one. However, despite these positive perceptions, other emotional and psychological aspects of reading were rated at moderate levels, suggesting that while reading is enjoyable, it does not consistently provide relaxation, inner peace, or comfort for all students.

Students rated both "Reading makes me feel happy inside" (M = 3.57, SD = 1.385) and "I think reading is relaxing" (M = 3.54, SD = 1.212) at moderate levels. Students find reading enjoyable but it does not consistently generate profound emotional satisfaction nor act as a significant relaxation tool. The classroom structure

of reading activities may lead students to see reading as stressful since they often connect it with academic requirements, evaluations, and performance pressure rather than viewing it as a relaxing activity (Grabe & Stoller, 2019; Schunk, 2023). Students tend to link relaxation with passive pursuits like music listening or video watching instead of engaging with texts that demand mental focus and effort.

The responses to "I feel calm when I read" (M = 3.54, SD = 1.258) and "I feel comfortable when I read" (M = 3.49, SD = 1.141) show moderate levels of psychological responses. All students do not experience reading as a consistently comfortable or relaxed activity. The cognitive demands of reading in a foreign language likely create stress that blocks complete emotional relaxation (Hajiyeva, 2024). The mental effort required to translate unknown words into meaning while understanding different syntactic patterns makes reading in English an engaging activity that does not always provide relaxation (Koda, 2005).

The statement "I feel good inside when I read" recorded the lowest average score (M = 3.12, SD = 1.397), indicating that reading fails to produce intense positive feelings among some students. Reading enjoyment may be shaped by students' previous reading experiences along with the difficulty of their assigned texts and lack of access to reading materials that align with their personal interests (Ma et al., 2021). Students who repeatedly face texts that challenge them too much or fail to capture their interest tend to build a neutral or negative emotional connection to reading which diminishes their pleasure and ease with the activity (Krashen, 2004).

These results show significant consequences for teaching reading strategies. Since students recognize their reading abilities and find some reading activities enjoyable, educators should construct an emotionally supportive reading space to enhance these positive experiences (Bozgun & Can, 2023; Yang & Gan, 2024). Educators can create a supportive reading environment by offering student-choice reading materials which enable learners to select texts based on their personal interests and emotional needs. Studies demonstrate that student autonomy in choosing reading materials leads to positive emotional reactions and deeper engagement according to Gambrell (2011).

The emotional attractiveness of reading can also be improved by combining various interactive and multimodal reading formats including audiobooks and group reading sessions. Through sharing interpretations and expressing excitement about stories students collectively develop a positive emotional connection with reading

materials according to Topping (2017). When students participate in structured mindfulness-based reading practices that direct their attention to sensory and emotional experiences, they can develop a deeper ability to enjoy reading as both a peaceful and emotionally rewarding experience.

The physical characteristics of the classroom environment can also be taken into account. Students tend to find difficulties in associating reading with relaxation when it becomes linked to academic assessments and performance pressures (Hill & Wigfield, 1984; Schillinger et al., 2021). Educators should introduce additional leisure reading periods while minimizing evaluation frequency to encourage students to read without stress. Establishing reading spaces equipped with cushions and soft lighting while keeping distractions to a minimum can help create a relaxed atmosphere that enhances students' enjoyment of reading.

In brief, these results together demonstrate that Iraqi secondary school students believe in their reading ability and enjoy reading but show diverse emotional and psychological reactions to reading. Reading brings relaxation and comfort to some students while others do not connect reading with enhanced emotional well-being. The study highlights the need to develop emotionally supportive reading spaces which function to improve reading skills and create richer reading experiences. When educators create a reading environment with more student choice and interactive activities within a supportive classroom atmosphere, students develop stronger psychological reading skills which can enhance motivation and literacy engagement over time.

5.6 Moderating Role of Self-Efficacy

In addition, this study looked into the mediating role of self-efficacy to determine whether it mediates the relationships among reading strategies, vocabulary size and reading comprehension. This study is based on theoretical framework of self-efficacy theory that asserts that self-efficacy is the most crucial psychological variable that can influence the use of reading strategies, the build-up of vocabulary size, and consequently, the effectiveness of reading comprehension (Alharbi, 2021; Bandura, 1977; Naseri & Zaferanieh, 2012; Okyar, 2021; Oranpattanachai, 2023). Below is a discussion of the findings of the study.

5.6.1 Relationship Between Reading Self-Efficacy and Reading Strategies

The findings of the study revealed that Iraqi secondary school EFL students showed a meaningful connection between self-efficacy and support reading strategies but no such connection with either global or problem-solving strategies. The results of this study align with existing research findings which demonstrate that learners who possess higher self-efficacy scores frequently utilize support strategies like rereading, note-taking, and dictionary consultation to strengthen their comprehension abilities (Apriliyani & Usuludin, 2023; Mohammed, 2022; Muche et al., 2024; Oranpattanachai, 2023). Understanding this finding requires examining the function of various reading strategies as well as the educational environment where students apply these strategies alongside the overarching theoretical framework of self-efficacy and language learning.

Reading support strategies involve activities like rereading text and highlighting critical information along with note-taking and seeking outside help from resources like dictionaries and translations. Support reading strategies function as compensatory devices which allow learners to overcome difficulties in understanding text content (Graham, 2022; Schunk, 2023). The direct and immediate support provided by these strategies leads students with higher self-efficacy to use them with increased confidence. Students who believe in their abilities to achieve success recognize that supportive methods offer straightforward and manageable approaches to enhance their understanding (Yang & Gan, 2024). Research shows that students who possess self-efficacy tend to engage in help-seeking behaviors because they trust their abilities which leads them to take active measures to grasp concepts better (Gunawan & Wulandari, 2024; Schunk, 2023).

The absence of notable connections between self-efficacy and advanced cognitive global strategies indicates that reading self-efficacy does not automatically lead to the use of more sophisticated mental processing techniques. Global strategies include text previewing activities and content prediction along with information summarizing and prior knowledge integration to build meaning (Mokhtari & Sheorey, 2002). These strategies demand metacognitive awareness while incorporating planning, monitoring, and evaluation of the reading process. The same problem-solving strategies apply when readers face difficulties by either modifying their reading speed or inferring meaning from context to regain comprehension (Capin et al., 2024; Clinton-Lisell et al., 2024; Graesser, 2007). These strategies greatly improve understanding but need both

active reading participation and experimenting with various methods which Iraqi EFL students rarely practice.

Various reasons exist for why self-efficacy significantly relates to support strategies but shows no connection with global or problem-solving strategies. The primary factor to investigate involves the characteristics of English language teaching throughout Iraq. In Iraq, secondary education students face a curriculum similar to other EFL programs that emphasizes memorization instead of developing critical thinking and strategic learning abilities (Ali, 2022; Altae, 2022). Teacher-focused instructional methods focus on vocabulary memorization and grammar drills instead of developing independent strategic reading abilities. The study of EFL education in Iraq shows students receive little training in advanced reading strategies which leads to a failure to develop metacognitive abilities necessary for using global and problem-solving reading techniques (Agha, 2014; Ahmed et al., 2015). Students who possess self-confidence in their learning skills usually select reading strategies that offer immediate help as opposed to methods requiring extended mental effort.

The reading materials used in Iraqi EFL classrooms serve as a fundamental element of instruction. Reading short texts with definitive answers restricts students from developing extensive reading techniques like synthesizing paragraphs and interpreting implied meanings. According to the findings of Grabe and Stoller (2019), Iraqi educational materials emphasize detail-oriented reading comprehension tasks instead of teaching students to develop broader conceptual understanding abilities. Students select support strategies because these methods provide immediate solutions that match their reading task needs (Pajares & Schunk, 2001; Schunk & DiBenedetto, 2021). Students with high self-efficacy usually ignore global or problem-solving reading strategies when their assignments fail to require these abilities.

The observed pattern may also be partly explained by the lack of direct strategy instruction. Teaching students the use of reading strategies especially global and problem-solving techniques leads to effective strategy application (Cromley, 2023; Oxford & Amerstorfer, 2018; Philip & Tan, 2006). For instance, Philip and Tan (2006) examined the role of Metacognitive Strategy Instruction (MSI) in facilitating ESL learners' strategic reading development. Authors applied an instructional programme, where learners were explicitly taught metacognitive reading strategies (i.e., planning, monitoring, problem-solving, evaluating) as well as how and when to apply these strategies. Informed by the Self-regulated Learning Approach to Strategic Learning

(SRSL), instruction involved emphasis on "co-regulation," or teacher scaffolding of learners' progressive movement towards more independent strategic use. Data were gathered through retrospective written recall protocols, where students were asked to reflect on their cognitive and metacognitive process after reading. Results suggest that both high- and low-proficiency students who were exposed to the MSI intervention reported greater awareness of strategic reading processes and more intentional, self-regulated approaches to comprehension. The study concluded that explicit metacognitive strategy instruction can be an important means for helping ESL learners become more reflective and independent readers (see also Philip, 2018).

Student strategic choices can be shaped by academic pressures together with cultural expectations (Boutyline & Soter, 2021; Gebauer et al., 2021). Students in many EFL contexts like Iraq aim for academic success by choosing strategies which provide immediate results because their learning systems prioritize exam performance over deeper cognitive engagement. Students find support strategies advantageous because they give clear and immediate help with comprehension which students believe leads to better exam performance. Global strategies that require students to engage with texts in broad ways and practice abstract thinking appear to offer less immediate practical benefits within educational systems that focus primarily on examinations. Studies demonstrate that students favor surface-level tactics to excel in assessments instead of deep processing strategies within test-oriented educational settings (Mokhtari & Sheorey, 2002).

Self-efficacy's connection to strategy use is also shaped by motivational factors. Students who possess strong self-efficacy but are driven by external rewards like high test scores tend to choose support strategies due to their quick outcomes (Al-Khresheh & Alkursheh, 2024; Apriliyani & Usuludin, 2023; Bozgun & Can, 2023; Li & Wang, 2010). The implementation of global and problem-solving strategies requires learners to possess intrinsic motivation and demonstrate a deep engagement with the text which is not common among all students (Zimmerman & Schunk, 2013).

Studies show that self-efficacy helps students to maintain effort in learning activities but it does not lead to automatic use of sophisticated reading techniques without deliberate instructional support (Mokhtari & Sheorey, 2002). The study results suggest that students preferred support strategies yet lacked a meaningful connection between their self-efficacy and their use of complex cognitive strategies. Studies show that effective reading habits develop when self-efficacy and explicit strategy instruction

combine together (Mohammed, 2022; Peng et al., 2023; Philip & Koo, 2006; Teng, 2020).

The results reveal an essential need for educational interventions that provide students with balanced reading strategy instruction. Students who possess high self-efficacy use specific strategies but require direct teaching to successfully apply global and problem-solving methods (Asakereh & Dehghannezhad, 2015). School programs that apply metacognitive training allow teachers to provide students with essential skills to independently navigate complex texts beyond elementary support techniques (Oranpattanachai, 2023).

In the Iraqi EFL curriculum, reading texts are predominantly short, literal, and structurally simple, typically consisting of descriptive paragraphs, brief informational passages, or cultural notes with limited inferential load. The content often focuses on factual recall rather than interpretive or critical analysis, and comprehension questions mainly target literal understanding, vocabulary meaning, and sentence-level recognition. Extended argumentative, persuasive, or problem-solving texts are rare in these textbooks. As a result, students are accustomed to relying on support strategies such as translation, dictionary use, and word-by-word processing, with fewer opportunities to develop global strategies (e.g., predicting, synthesizing) or problem-solving strategies (e.g., inferencing from context, adjusting reading rate) that are typically activated in more cognitively demanding texts. This instructional background helps explain why students in this study reported high use of basic support strategies but comparatively lower use of advanced global and problem-solving strategies.

All in all, the findings of the study confirm recent studies that demonstrate self-efficacy strongly predicts the use of support strategies but has minimal impact on global and problem-solving strategies. The connection between instructional practices and learner outcomes develops through the combined forces of cultural context and student motivation. Therefore, EFL instruction should prioritize explicit strategy training and motivation-enhancing techniques to help students learn advanced reading strategies.

5.6.2 Relationship Between Reading Self-Efficacy and Vocabulary Size

The findings of the present study show that the complex relationship between self-efficacy and vocabulary size challenges current research and introduces new perspectives. The analysis of the data revealed that self-efficacy does not show a

significant effect on vocabulary size, thus demonstrating that personal confidence in learning capabilities does not directly lead to vocabulary expansion. The results stand in opposition to earlier research which identified self-efficacy as a crucial element for learning strategy effectiveness and consistent effort towards vocabulary growth.

Recent studies have rigorously explored the intricate relationship between self-efficacy beliefs and results in language learning. Wang et al. (2021) analyzed multiple self-efficacy assessment tools for English language students and found a steady positive link between students' self-efficacy beliefs and their English language proficiency levels. Research indicates that students with strong self-efficacy beliefs attain superior results in language-related tasks (Li et al., 2024; Nordlund et al., 2023; Oranpattanachai, 2023; Schunk, 2023). This study deviates from expected results solely in vocabulary acquisition studies. While self-efficacy enhances overall language skills it fails to produce direct vocabulary development.

Sun (2020) investigated how second-language university students' self-efficacy beliefs affect their vocabulary retention capacity. Research results showed that learner self-efficacy improved motivation and task involvement but failed to produce meaningful growth in vocabulary learning. High self-efficacy students demonstrate better persistence but their vocabulary acquisition relies mainly on structured teaching environments and consistent practice rather than self-efficacy itself (Bai & Wang, 2023).

According to Li and Zhang (2023), self-efficacy motivates students to apply vocabulary strategies but does not improve their ability to retain vocabulary in digital language learning settings. Effective vocabulary learning requires students to participate in structured instructional methods and continuous reinforcement activities that exceed their personal confidence levels.

Language learning studies demonstrate that students' self-efficacy levels directly correspond with their proficiency levels across multiple language skills. According to studies by Rahimi and Zhang (2019) and F. Teng (2022), students who have high self-efficacy demonstrate better reading comprehension and speaking fluency, as well as stronger writing skills. Although self-efficacy helps students develop various language abilities, it does not significantly impact vocabulary acquisition in the present study. The findings of the study suggest that researchers need to perform studies targeting individual language learning components because self-efficacy seems to influence various language abilities in distinct ways.

The study by Dewaele and Alfawzan (2018) shows that self-efficacy helps students maintain better focus and engage more effectively in language learning activities which enhance their language abilities over time. The study found that vocabulary mastery occurs through structured teaching methods and memory techniques instead of relying on learners' confidence about their language skills, but it demonstrates how self-efficacy supports the development of complete language abilities. Hence, educational research shows that psychological factors by themselves do not drive vocabulary learning while structured educational methods remain key.

Bandura's (1997) Social Cognitive Theory explains that learning outcomes rely on self-efficacy as it affects both cognitive functions and motivational and affective processes. Bandura (1997) demonstrates vocabulary acquisition relies primarily on external linguistic input and practice rather than learners' self-perceptions despite the recognized impact of self-efficacy on learning behaviors. The Input Hypothesis (Krashen, 1982) posits that meaningful linguistic input plays an essential role in language acquisition and shows that contextual vocabulary learning impacts language acquisition more than self-efficacy.

The Simple View of Reading model by Gough and Tunmer (1986) demonstrates that effective reading comprehension requires both decoding skills and linguistic awareness. It also shows that vocabulary knowledge forms the fundamental foundation for language comprehension and that students acquire vocabulary through direct instruction and substantial word exposure rather than through their own confidence levels. Perfetti's Lexical Quality Hypothesis (2007) shows that vocabulary learning occurs through multiple exposures to words in different settings which reveals that structured educational experiences and exposure to vocabulary are more critical than how students view themselves.

It is worth satating that methodological variations combined with context-specific factors might account for the differences between the results of the study and those of previous research. The existing literature demonstrates a strong connection between self-efficacy and vocabulary size but focuses primarily on specialized learner groups like highly motivated or advanced students (Nordlund et al., 2023; Onoda, 2014). The sample population of the study included learners with different motivational levels and learning resource access that may have reduced the influence of self-efficacy on vocabulary learning outcomes.

The way researchers measure and define vocabulary knowledge also remains a crucial consideration for this study. Previous research on vocabulary size evaluation used self-report measures and broad language proficiency tests that potentially reflect self-efficacy effects via overall language abilities. The study's vocabulary size assessment methodology provides precise but restricted measurements which could clarify why self-efficacy failed to present a significant impact.

In brief, the results of the study also dispute the common belief that self-efficacy functions as a central factor in vocabulary acquisition. Self-efficacy encourages motivation and participation in learning activities for vocabulary but does not show a measurable effect on expanding vocabulary size. Previous studies demonstrate the necessity for learners to adopt external learning methods and structured reinforcement practices instead of depending only on psychological confidence. Therefore, teaching professionals need to implement direct vocabulary-building techniques together with self-efficacy enhancement activities to provide learners with the tools they need to build vocabulary while developing their self-efficacy.

5.6.3 Relationship Between Reading Self-Efficacy and Reading Comprehension

The findings of the study demonstrated a strong relationship between reading self-efficacy and reading comprehension which supports the idea that students' confidence about their reading skills significantly impacts their reading performance. The study's results join existing research that highlights the significant influence of self-efficacy on student academic achievement especially in language skills. Research findings indicate that students who feel confident in their ability to understand and interpret texts demonstrate greater determination and resilience when tackling reading tasks that present difficulties. Students who have confidence in their reading skills improve their information processing abilities and develop a positive reading attitude necessary for achieving long-term academic success.

Recent research indicates that individuals' perceptions about their reading abilities have a substantial influence on their actual reading performance. Apriliyani and Usuludin (2023) found that reading self-efficacy reflects readers' confidence to reach their reading objectives and establishes its strong positive association with reading comprehension outcomes. Similarly, Bozgun and Can (2023) showed that self-efficacy beliefs served as an intermediary between reading strategy use and comprehension

outcomes while emphasizing the importance of developing self-efficacy within reading instruction.

The research confirms Carroll and Fox's (2017) finding which shows that students who possess greater reading self-efficacy use metacognitive approaches like summary questioning and inferencing to improve their understanding of texts. The research shows that self-efficacy determines students' motivation in choosing reading strategies that enhance comprehension. Proficient readers develop and implement advanced cognitive and metacognitive strategies through the foundation of self-efficacy.

The study by Schunk and DiBenedetto (2020) shows that students with strong reading self-efficacy routinely use metacognitive reading techniques, such as summarizing and questioning to improve their reading comprehension abilities. The development of student reading comprehension skills benefits from self-efficacy which influences their motivation and reading technique selection. Therefore, readers who display confidence in their abilities interact actively with reading materials by checking their comprehension levels and changing their reading techniques when they encounter difficulties understanding the text. Implementing metacognitive strategies allows readers to create understanding from texts which helps them interpret complex materials. Readers advance their proficiency when they utilize sophisticated cognitive and metacognitive strategies because their self-belief plays a crucial part in developing and applying these methods. As such, reading experiences that enhance self-efficacy perceptions help students to learn strategic and independent reading behaviors.

The study's findings about the impact of reading self-efficacy on reading comprehension align with Bandura's (1986) Social Cognitive Theory framework . According to this theory self-efficacy influences learning behaviors by working through cognitive processes as well as motivational and emotional responses. When students have strong self-efficacy beliefs they approach difficult reading texts confidently which helps them remain motivated during challenging sections while applying effective reading strategies to enhance comprehension. Students who display strong self-efficacy respond to unfamiliar vocabulary by utilizing contextual guessing and sentence decomposition methods rather than quitting. Scientific research supports this theoretical perspective by demonstrating that reading education programs need to implement strategies that enhance students' self-efficacy. Teachers who develop students'

competence and control skills prepare them to handle reading responsibilities and develop resilience when facing challenging material.

The findings support existing research and report fundamental impacts on teaching methods and reading intervention strategies. When students trust their reading skills they display higher levels of risk-taking in confronting challenges associated with reading materials (Muhsin & Dehham, 2022; Wang et al., 2022). Teachers should implement instructional approaches which strengthen student self-belief through positive experiences and feedback while demonstrating reading methods. Reading activities should be structured by educators to establish sequential achievements which gradually enhance student confidence over time. The reflection on their reading progress helps students enhance their self-confidence once they set realistic goals (Chung et al., 2021). Recognition of student effort and development from educational environments increases student confidence toward challenging reading assignments (Schunk, 2023).

This study reveals important methods for improving digital literacy skills. The development of online learning platforms has inspired Cho et al. to conduct new research. The research by Cho et al. (2018) showed that self-efficacy plays a crucial role in students' ability to understand and critically analyze digital texts. Students need self-efficacy-building activities in digital learning environments to develop the literacy skills required for modern digital contexts. Educators have the ability to build digital reading exercises that become progressively harder so that learners gain confidence in handling online materials. When students learn how to evaluate digital source credibility and merge information from multiple platforms, their self-efficacy grows during digital reading activities (Bonanati & Buhl, 2022; Han & Reinhardt, 2022).

The value of culturally responsive instruction as a tool to develop self-efficacy stands as an important implication. According to Gay's (2021) research, culturally relevant educational materials and strategies that match student backgrounds boost reading self-efficacy which results in better comprehension results. Reading engagement and student confidence in their abilities improve when literature reflects their cultural experiences and identities. There is a need for future research to investigate methods for implementing culturally responsive practices in diverse educational settings to optimize self-efficacy benefits in reading development. When educators focus on the specific experiences and needs of students from various cultural backgrounds, they cultivate more inclusive reading spaces that empower students.

Overall, this study demonstrates that self-efficacy functions as an essential element for reading comprehension which necessitates specific interventions to strengthen student confidence in their reading skills. Educators who employ self-efficacy-enhancing techniques in reading education enable students to acquire necessary motivation and strategic abilities as well as resilience for success across traditional and digital reading platforms. Culturally responsive practices provide all students with opportunities to develop strong self-efficacy beliefs and reach their full potential as readers regardless of their backgrounds. The findings presented here create a useful base for upcoming studies and educational methods that will enhance reading results across various student groups.

5.6.4 Self-Efficacy as a Mediator Between Reading Strategies and Reading Comprehension

The study revealed that self-efficacy significantly mediates the relationship between support and global reading strategies and reading comprehension for Iraqi secondary school EFL students. However, the mediating effect of self-efficacy between support and global reading strategies and reading comprehension fails to apply to problem-solving reading strategies. The effectiveness of specific reading strategies depends on learners' confidence in their reading abilities while other strategies function without requiring self-efficacy beliefs. Students who demonstrate high self-efficacy show a greater tendency to apply metacognitive strategies leading to enhanced reading comprehension abilities.

Studies show that students who possess strong self-efficacy beliefs engage more thoroughly in reading strategies that demand careful planning and continuous effort (Bozgun & Can, 2023; Shehzad et al., 2021; Wang et al., 2022). Shang's (2010) showed that Taiwanese university students who possessed higher self-efficacy adopted more varied reading techniques which resulted in improved comprehension performance. Alharbi's (2021) study revealed that Saudi undergraduate students who held strong self-efficacy beliefs demonstrated greater proficiency in using effective reading strategies which resulted in enhanced comprehension outcomes .

Reading support strategies encompass techniques like note-taking and summarizing along with highlighting which all contribute to improved information retention and processing (Mokhtari & Sheorey, 2002). Global reading strategies

integrate planning and previewing activities with the establishment of reading purposes to create a comprehensive method for text engagement. The relationship between self-efficacy and reading strategies reveals that students who feel confident about their reading skills tend to use and gain advantages from these techniques. Meniado (2016) demonstrated that Saudi EFL students possessing higher self-efficacy engaged more frequently with metacognitive strategies leading to better reading performance. Li and Wang (2010) found that Chinese EFL students with high self-efficacy tended to use global reading strategies which improved their comprehension. The results support Bandura's (1997)Social Cognitive Theory which states that people who possess high self-efficacy show increased motivation and persistence when performing tasks that demand cognitive effort. Reading self-efficacy prompts learners to implement global and support strategies which enhances their comprehension skills.

Problem-solving strategies function as reactive methods that learners utilize whenever they face difficulties understanding text material. Readers use problem-solving strategies such as rereading difficult content, discerning meanings from surrounding text, and modifying their pace during reading (Mokhtari & Sheorey, 2002). The lack of self-efficacy mediation in this situation stems from the immediate and situation-specific characteristics of these strategies. Problem-solving strategies differ from global and support strategies because learners deploy them instinctively when they face reading comprehension problems. According to McKee et al. (2005), problem-solving strategies tend to be automatic reactions to reading challenges and thus their usage may not depend on the reader's confidence. Self-efficacy strongly affected global strategy usage but had insignificant effects on problem-solving strategies as per Shang (2010), suggesting these strategies operate independently of self-efficacy beliefs.

Iraq's educational system which focuses on teacher-driven instruction and memorization might shape students' dependence on particular reading techniques. Such educational environments do not typically provide students with opportunities to learn autonomously or manage their strategies independently. Many learners end up depending on reactive problem-solving methods instead of proactive strategies which need reading confidence. The findings suggest that self-efficacy fails to serve as a mediator between problem-solving strategies and comprehension. Issa and Jamil (2010) found that EFL students in conventional classroom settings prefer surface-level strategies which show little connection to their self-efficacy. Learners who lack training in self-regulation for reading tend to deploy problem-solving strategies during

comprehension breakdowns out of necessity instead of adopting a structured approach that builds reading confidence.

The effectiveness of problem-solving strategies may depend significantly on a learner's linguistic proficiency. In other words, students who possess abundant vocabulary and grammar knowledge may demonstrate better inference-making abilities and comprehension problem-solving skills compared to students with limited proficiency who face difficulties despite their confidence levels. Hadomi's research (2012) demonstrates that vocabulary knowledge serves as a significant predictor for reading comprehension results among EFL learners. The research by Alharbi (2018) also demonstrated that linguistic proficiency had a stronger influence compared to self-efficacy on the effectiveness of problem-solving methods used by Saudi EFL students. The absence of sufficient linguistic competence to understand difficult texts reduces the impact of high self-efficacy on problem-solving strategies.

The results demonstrate significant consequences for instructional strategies in teaching reading skills. Educators need to promote students' confidence in reading to effectively utilize global and support strategies for better reading comprehension since self-efficacy mediates these strategies' effects. Metacognitive training stands out as an effective method because it involves learners in setting reachable reading objectives and tracking their progress while reflecting on how they learn. According to Meniado (2016) reading interventions result in improved self-efficacy and enhanced reading comprehension skills. Creating autonomous and critical-thinking learning environments will decrease students' dependence on reactive learning methods. Educational professionals should prioritize group-based activities and problem-solving assignments that promote active student participation in their reading development.

Instructional methods should concentrate on developing students' language abilities and cognitive flexibility in addition to problem-solving techniques since these techniques operate separately from self-efficacy. Students improve problem-solving skills when educators teach vocabulary learning methods directly while developing inferencing skills and sentence parsing strategies together. Students develop fundamental linguistic and cognitive competencies through scaffolded reading tasks which enable them to apply problem-solving strategies without dependence on self-efficacy beliefs. Structured scaffolding of reading materials improves learners' inferencing skills and reduces reactive method reliance as per Koda's 2021 study.

Further investigation is required to determine additional elements that influence the effectiveness of problem-solving strategies on reading comprehension. A valuable research direction includes examining the moderating effects of working memory and cognitive flexibility on problem-solving strategy effectiveness among distinct learner populations. Lin and Yu (2023) found that learners with greater cognitive flexibility adjust their reading methods more effectively during reading tasks and this adjustment influences the effect of self-efficacy on reading performance. Longitudinal research that follows the growth patterns of self-efficacy and reading strategy application through time will bring additional understanding about their interaction in EFL learning environments. Research into targeted interventions that improve self-efficacy and language skills provides useful information for improving reading teaching methods.

The research demonstrates that self-efficacy functions as an essential mediator linking global and support reading strategies to reading comprehension abilities among secondary school EFL students in Iraq. Self-efficacy fails to mediate between problem-solving strategies and comprehension because problem-solving strategies appear immediate and reactive while cognitive load limitations and unique learning environment factors also play a role. The study results demonstrate the necessity for instructional methods that simultaneously build self-efficacy and provide students with linguistic and cognitive abilities for effective reading strategy use. Further research needs to explore how self-efficacy interacts with reading strategies and comprehension to better understand the optimization of reading instruction for EFL students.

5.6.5 Self-Efficacy as a Mediator Between Vocabulary Size and Reading Comprehension

The study demonstrates that self-efficacy fails to influence how vocabulary size affects reading comprehension among Iraqi secondary school EFL students which gives key information about how linguistic understanding interacts with psychological elements during reading development. The lack of self-efficacy influence on how vocabulary affects reading comprehension shows vocabulary size as the primary factor that determines reading comprehension ability.

The ability to understand reading materials depends largely on vocabulary size because students who know more words can both decode texts and understand meaning through inferential thinking (Alzahrani et al., 2021; Zhang & Zhang, 2020). A larger

vocabulary makes word recognition easy which allows readers to perform essential comprehension activities like making inferences and summarizing texts as shown by Dong et al. (2020). Research findings demonstrate a direct relationship between vocabulary size and reading comprehension which supports previous studies showing lexical knowledge as a crucial element of reading proficiency (Nation, 2005; Zhang & Zhang, 2020).

The absence of self-efficacy as an intermediary variable shows that reading skill confidence does not improve comprehension benefits from vocabulary knowledge. Reading vocabulary development operates at fundamental linguistic stages making self-efficacy irrelevant for its effective use. Learners with strong vocabulary skills can understand text information directly without needing confidence in their reading abilities. The importance of self-efficacy rises when performing strategic tasks such as metacognitive regulation and inferential reasoning but is less relevant for basic linguistic comprehension as shown by Pajares (1996) and Schunk & Pajares (2002).

In EFL settings learners develop their vocabulary through direct teaching methods and continued practice which focuses on memorization and learning words in context (Nation, 2001). Because vocabulary acquisition depends mainly on basic cognitive functions like word recognition and lexical retrieval it probably remains unaffected by self-efficacy beliefs. Alshehri (2023) and Alzahrani et al. (2021) suggest that learners who develop extensive vocabulary knowledge can understand texts well even when they have low confidence in their reading abilities which explains why self-efficacy does not mediate the relationship between vocabulary size and reading comprehension.

Insights from bottom-up processing models of reading comprehension also provide an explanation as to why self-efficacy lacks mediating power in this context. Reading comprehension in bottom-up models depends on linguistic knowledge including phonological awareness, word recognition, and vocabulary abilities (Kintsch, 2005; Oliver & Young, 2016). Students develop reading comprehension through automatic decoding of linguistic elements which operates independently from higher cognitive functions or emotional aspects like self-efficacy (Hirsh & Nation, 1992). The dominant role of vocabulary size in reading comprehension limits the effectiveness of self-efficacy as an intermediary component in this relationship.

Research demonstrates that self-efficacy plays a significant role in comprehension during advanced reading tasks such as inferencing and strategic reading

as found by Oranpattanachai (2023) and Shehzad et al. (2019). According to Schmitt (2008), vocabulary size exerts a primary influence on basic language processing that minimizes the effect of self-efficacy on reading comprehension development. Schunk & Pajares (2002) found that self-efficacy improves student engagement and persistence in complex reading tasks yet does not improve basic linguistic abilities such as vocabulary learning and usage.

The instructional methods and learning settings specific to Iraqi EFL students offer an alternative perspective to understand this occurrence. Educational systems in EFL contexts focus mainly on rote learning and vocabulary drills that emphasize direct memorization over the development of learners' metacognitive abilities and confidence-building techniques (Shehzad et al., 2021). Through structured instruction students develop extensive vocabulary knowledge but this does not support corresponding growth in their self-efficacy levels. Students who use memorization to learn vocabulary connect their reading achievement to teaching methods instead of their own skills which diminishes self-efficacy's influence on reading comprehension.

Reading comprehension improvements through vocabulary expansion operate independently from self-efficacy showing how lexical knowledge development functions autonomously in EFL learning environments. According to Cho et al., (2021) and Martinez (2019), self-efficacy serves as a primary mediator in reading comprehension which accounts for its distinct influence on reading strategies compared to vocabulary learning. Improvements in reading comprehension due to vocabulary growth are linked to linguistic capability rather than motivational or emotional factors. Studies by Naseri & Zaferanieh (2012) and Sembiring et al. (2018) demonstrate that self-efficacy has a greater impact on skill-based reading and strategic reading processes than on foundational linguistic abilities.

Self-efficacy enhances motivation and learning persistence but proves more effective for tasks that require active cognitive control compared to basic knowledge retrieval tasks. Research by Sofyan & Jayanti (2019) and Taghizadeh & Jamali (2018) shows that self-efficacy improves reading comprehension by helping learners plan their reading and monitor their progress through evaluation processes. Reading vocabulary processing needs only minimal metacognitive control which lessens self-efficacy's impact during comprehension tasks.

According to these models reading comprehension develops through automatic decoding of linguistic units without the need for higher-order cognitive processes or

emotional influences like self-efficacy (Hirsh & Nation, 1992). The powerful effect of vocabulary size on reading comprehension diminishes self-efficacy's role as a mediator in this process.

Research indicates self-efficacy plays a substantial role in comprehension during complex reading tasks including inferencing and strategic reading. According to Schmitt (2008) self-efficacy does not significantly aid in developing lexical knowledge into reading comprehension because vocabulary size mainly controls basic language processing. Schunk & Pajares (2002) found that self-efficacy improves student engagement and persistence in complex reading tasks yet does not improve basic linguistic abilities such as vocabulary learning and usage.

This study reveals numerous implications for teaching methods. Educators need to center reading instruction around vocabulary growth and foster students' self-efficacy in reading to boost their engagement and persistent efforts. The combination of goal-setting with positive reinforcement and scaffolded reading tasks serves to build learners' self-confidence in reading. Combining vocabulary instruction with strategic reading practices enables self-efficacy to become more influential throughout reading development during activities requiring inference, summarization, and evaluation.

Additional studies need to investigate the intricate relationships among self-efficacy levels, vocabulary breadth, and reading comprehension abilities within varied English as a Foreign Language learning groups. By following the progression of these variables throughout time researchers will gain more detailed understanding of the specific ways self-efficacy affects reading comprehension independent of vocabulary knowledge. Experimental studies that evaluate interventions aiming to boost both vocabulary learning and self-efficacy development can provide valuable insights for designing better EFL classroom teaching strategies (Ali & Razali, 2019).

5.7 Difficulties in Reading Comprehension Among Iraqi Secondary School EFL Learners

Reading comprehension is one of the most fundamental skills that ensure successful academic accomplishment and lifelong learning. However, for Iraqi secondary school EFL learners, learning to read with comprehension can pose a number of challenges that are influenced by multiple factors. A deeper realization of such challenges could help the educators and the policymakers shape appropriate

interventions and support systems to develop students' reading comprehension skills. The current study aimed to investigate the reading comprehension difficulties of Iraqi secondary school EFL learners. Through qualitative focus group discussions, it provided insights into the underlying factors leading to such challenges and suggested ways towards their remedial.

5.7.1 Limited Vocabulary

The qualitative insights from the focus group discussions with Iraqi secondary school EFL students provided additional nuanced insights regarding the challenges with limited vocabulary in reading comprehension. The narratives revealed important information about the complex processes involved in dealing with unfamiliar vocabulary, and they showcased the extent to which lexical constraints can influence the experiences of comprehension. The narratives from the participants illustrate the nature of challenges that come with limited vocabulary. They reported having difficulties with academic terms, and the time-consuming nature of trying to translate and comprehend words that they do not know. This aligns with the research findings that the lack of vocabulary knowledge can cause comprehension challenges by preventing readers from accessing and understanding the meaning of the words that they encounter in the text (Masrai, 2019; Masrai & Milton, 2021; O'Reilly et al., 2019). Furthermore, the reliance on contextual cues or dictionaries exemplifies adaptive strategies that students use to cope with unfamiliar vocabulary but also highlights the potential limitations or complexities with these strategies.

The results of the study further emphasise the need for specific interventions and supportive learning environments to help EFL students overcome their vocabulary deficits. Teachers should prioritise vocabulary enrichment in context-based learning activities that allow learners to connect with terms and their internalisation in the discourse context (Antia et al., 2021; Thompson & von Gillern, 2020). Additionally, explicit vocabulary instruction and interactive vocabulary activities, along with vocabulary-focused reading strategies, can serve as scaffolding to foster students' vocabulary development skills and enhance their comprehension skills (Grabe & Stoller, 2019; Nation, 2012). Recognising the challenges surrounding vocabulary acquisition and comprehension can help educators empower students to overcome these challenges and effectively develop their reading comprehension skills.

These qualitative data on the issues that the Iraqi EFL secondary school students encounter with their limited vocabulary sizes resonate with the overwhelming findings in the research literature that vocabulary size is significantly related to reading comprehension (Alzahrani et al., 2021; Dong et al., 2020; Ocampo & McNeill, 2019; Şen & Kuleli, 2015; Tan & Goh, 2017; Zhang & Zhang, 2020). These testimonials corroborate and give a human touch to the quantitative results of the current study that vocabulary size is significantly related to the reading comprehension of Iraqi EFL secondary school learners. This connection reprecents the primacy of lexical knowledge for the act of reading written texts and also exemplifies that vocabulary size is fundamental to reading comprehension skills (Dong et al., 2020; Nation, 2005).

Similarly, the qualitative feedback provided on students' limited vocabulary further supports the tenets of the bottom-up reading models. One of the key aspects of the bottom-up reading models is the emphasis on the linguistic factors in reading comprehension processes: that is, the notion that 'the construction of meaning from word to word as the readers pieced together individual words and their syntax and semantics' (Gough et al., 1972; Hoover & Tunmer, 2020). Respendent's' accounts of their reading experiences reflects the bottom-up processing strategies that emphasise the difficulties encountered in reading and comprehending individual words. This note further highlights the central role of their vocabulary knowledge in understanding comprehension challenges. These narratives then provide support to the tenets of the bottom-up reading models that 'spatiotemporal diffusion of the readers' attention to process the linguistic features of words is central to the reading comprehension processes'. In sum, their narratives describe the constraints of limited vocabulary which can potentially hinder effective comprehension of a text by interfering with readers' ability to decode and interpret the linguistic features of words, and hence provide support for the tenets of the bottom-up processing theory (Amadi, 2019; Nadea, 2021; Oliver & Young, 2016).

In conclusion, the narratives of Iraqi secondary school EFL respondents on their reading revealed the strong powerful impact of limited vocabulary on the process of reading comprehension. The findings of this study suggested clear directions to tackle the vocabulary problems in language learning , and it also re-emphasised the importance of applying appropriate pedagogical approaches to develop vocabulary and reading comprehension skills of EFL learners by integrating well-designed vocabulary teaching

to create a friendly atmosphere for learners to be involved in the process of reading with confidence and competence (Caena, 2013; Oliver & Young, 2016).

5.7.2 Lack of Interest

The qualitative results regarding the lack of interest of the Iraqi secondary school EFL students shed light on the complex relationship between motivation and reading comprehension. 'A respondent's comment that he is not interested in learning English language is a good example of how the role of interest in the process of language learning cannot be overemphasised. Learning psychology research has long highlighted the role of intrinsic motivation (authentic interest or enjoyment in learning process) on learning language (Miyamoto et al., 2019; Ryan & Deci, 2020).

Lack of interest in the target language may also undermine learners' willingness to engage with the English texts and exert effort on comprehension prompts. A respondent further noted the consequences of low interest on learners' attitude to instructional content and supplementary materials. His description of being inattentive to explanations and having little or no exposure to English language programmes discusses the bidirectional relationship between interest on the one hand, and attentiveness and engagement with learning materials on the other: Low interest reduces motivation to engage with the materials and supplementary programmes. Once learners disengage from language activities and supplementary materials, they limit their exposure to authentic forms of language input, which in turn impairs their capacity to comprehend language (Guthrie et al., 2000; Qureshi et al., 2023).

As the feedback from the focus group discussion showed, this complex relationship between interest and reading comprehension is bidirectional. Lower interest does not just dampen students' motivation to read English texts; it also hinders their use of helpful comprehension strategies and their ability to construct meaning from text (Clinton-Lisell et al., 2024; Gambrell, 2011; Lee et al., 2021). This can in turn affect students' word-level of decoding, their ability to make inferences and monitor their understanding, ultimately having a negative influence on their abilities to comprehend what they are reading.

Connecting the discourse about the low level of interest of Iraqi secondary school EFL learners to the crucial role of self-efficacy that the study's quantitative data offers new insights into the intricate relationship between motivational factors and the

outcomes of reading comprehension. Although the qualitative findings bring to the table the harmful influence of low interest on the level of motivation and skills of Iraqi secondary school EFL learners in dealing with English language learning activities, the study's quantitative data reveal the crucial role of self-efficacy beliefs in predicting reading comprehension abilities among Iraqi secondary school EFL learners.

Motivation and self-efficacy are closely connected constructs as they both influence learners' readiness to engage in learning activities, as well as their belief in their ability to reach their goals (Bandura, 1997). 'The respondents' recollections about not being interested in learning English might also reflect a reduction in their self-efficacy beliefs about their English language abilities – students become less confident that they can understand texts and succeed academically when they perceive language learning tasks as too boring or difficult for them (Delgado-Vásquez et al., 2022; Jiang, 2023; Pajares, 2003).

The relationships between motivation, self-efficacy and reading comprehension appear to be complex and multi-faceted. While self-efficacy beliefs predict Iraqi secondary school EFL learners' reading comprehension abilities, low interest and motivation might indirectly affect reading comprehension outcomes by lowering students' self-efficacy beliefs (Apriliyani & Usuludin, 2023; Oranpattanachai, 2023; St Asriati et al., 2018; Zimmerman et al., 1992). By not finding language learning activities interesting, students might doubt their ability to comprehend texts fully, lowering their self-efficacy and performance in reading comprehension.

Because motivational and self-efficacy factors are entwined with reading comprehension, teachers of language need to take a holistic approach to address motivational and self-efficacy factors simultaneously in order to promote readers' comprehension abilities (Alsharhani et al., 2023; Nguyen, 2015; Wyatt, 2018). Teaching strategies that promote interest and engagement, such as using culturally relevant materials, creating opportunities for meaningful interaction with the English-language text, introducing enjoyable learning activities and providing constructive feedback, can enhance their students' motivation and self-efficacy in comprehending reading texts (Wood et al., 2006). Moreover, students' self-efficacy interventions, such as setting students' goals, providing them with effective feedback, establishing a growth mindset and letting them know that challenges promote learning, can build their confidence and can lead them to overcome difficulties (Schunk, 2023; Schunk & DiBenedetto, 2020).

In brief, this discussion on the secondary school EFL learners in Iraq with low motivation could contribute to the existing literature concerned between motivational factors and reading comprehension outcomes. The linking of these qualitative results to the critical role of self-efficacy emerging from the quantitative results could assist teachers learn what factors influence students' comprehension and how their instructional needs could be met.

5.7.3 Inadequate Language Practice

The qualitative data on the lack of practice of Iraqi secondary school EFL students illuminate another crucial causal factor explaining why these students have reading comprehension problems. One of the participants admits that he has challenges associated with the lack of language activities that help him improve his English proficiency. This underscores the fundamental role of practice in language learning. Learners learn language because they have been exposed to it and have opportunities to use it in meaningful activities, as advocated in theories of skill acquisition such as the input hypothesis of Krashen (1992). Lack of listening, speaking and reading activities can hinder learners from internalising language patterns and their ability to use language skills fluently (Lightbown, 2019; Lightbown & Spada, 2020).

Another respondent's concern about the imbalance between the emphasis on grammar and the limited focus on other language skills underscores the importance of creating a balanced curriculum that addresses the diverse needs of language learners. In an ideal language curriculum, there should be a range of language activities that include reading practice, speaking exercise, listening comprehension tasks and writing tasks to develop multiple aspects of a language (Richards & Rodgers, 2014). Students could read a text and discuss its content. They could speak about a topic and write about what they have practiced in class. Students could also listen to teachers and classmates and write about what they have heard. In this way, students develop various language skills. By devoting some time for students to practice language skills and apply what they have studied in school, language teachers could help their students develop language proficiency and become good readers (Nation & Waring, 2019).

These students' comments point to a need for instructional practices that provide more varied and adequate practice of language skills in the curriculum and make sure the balance of these practices reflects what is being taught and what students need to

learn. Schools and teachers should consider the balance of language skills in their teaching and focus on the kind of practice that students need to develop their reading skills. There is a strong case for the inclusion of extensive reading programmes, listening programmes and language practice to be included in the curriculum so that students can have direct opportunities for encountering English language materials and developing their reading skills (Day & Bamford, 2002; Nation & Waring, 2019).

To conclude, poor practice of language by students reflects the significant role of daily and diversified language practice in the students' ability to read effectively. To address this challenge, instruction must be revisited and the teaching of balanced and diversified language practice must become an intrinsic part of the curriculum. Teachers can help students to practise reading and create a conducive and supportive language-learning environment.

5.7.4 Insufficient Support

The qualitative findings related to lack of teacher support for English language instruction further emphasise a major obstacle to Iraqi secondary school EFL students' reading comprehension. The students' honest reflections on experiencing insufficient teacher support provide insight into the barriers they face in comprehending English texts.

This is indeed an important observation by the respondents that learners of a language have to deal with. The speed of instruction and unwillingness of instructors to provide translations can make the listening task difficult for students. Crucially, language learning research over the years has shown that comprehensible input that is clear and understandable with adequate explanations and contextual support is the important factor in second-language acquisition (Gass & Mackey, 2014; Krashen, 1982; Mitchell et al., 2019). Teachers must pace themselves so that conversations don't race ahead, but take into account that students are not always able to process utterances independently, by providing translations or explanation of the content when appropriate.

A respondent's observation about the 'big words' that teachers use without explanation underscores the importance of explaining challenging content clearly. Simply using challenging vocabulary without explaining it first can alienate students and impede their attempts to make sense of what they are reading (Jameel & Suleiman,

2023; Loewen, 2020). Scaffolded language instruction entails sequencing teaching and learning experiences in ways that new vocabulary is gradually introduced and explained such that students can build upon what they already know to make sense of their new learning (Hong et al., 2020; Vygotsky & Cole, 1978). Teachers should strive to calibrate challenge and support in such a way that students are able to make sense of the content.

Comment about mispronunciation by the participants has added another aspect of insufficient support: the importance of pronunciation in language instruction. Correct pronunciation of the language is fundamental for the comprehension of the target language, particularly since the mispronunciation of some words can lead to misunderstanding and misinterpretation (Ahmad et al., 2022). Therefore, the instructor cannot overlook the correct pronunciation of the target language and give learners a chance to improve their pronunciation skills by practising it. Moreover, creating a learning environment where learners feel free to ask questions and request clarification can also play a role in improving their pronunciation skills.

Overall, the inadequate teacher support to read in English without assistance is a major difficulty for Iraqi high school EFL students in developing their reading proficiency. When instructors communicate in a clear way, with appropriate speed, and have accurate pronunciation, they act as a huge factor in supporting students to read in English and ultimately can create a learning environment that will help them to read in English language more comfortably.

5.7.5 Ineffective Teaching Approach

The qualitative findings related to lack of teacher support for English language instruction further emphasise a major obstacle to Iraqi secondary school EFL students' reading comprehension. The students' honest reflections on experiencing insufficient teacher support provide insight into the barriers they face in comprehending English texts.

The 'participants' comments about fast-paced teaching reveal how instructors can improve the pacing of their teaching. Using a fast-paced teaching approach may lead to overwhelm and interfere with students' ability to process and comprehend the information. Constructivist theories of learning suggest that giving students time to process the information and internalise it so that they can make sense of it in a way that makes sense to them is essential (Vygotsky & Cole, 1978). Instructors should teach at

a slower pace to accommodate students' cognitive processing needs, allowing adequate time for processing and internalisation of the information presented.

Participants's stance regarding the necessity of clarify and simplicity in text explanations highlights the importance of using language and instructional techniques that can be understood. This is because clear explanations can lead to better understanding and more active engagement with the material. Teachers, for instance, are advised to scaffold concepts, chunk information and frame explanations in visual forms using diagrams to enhance comprehensibility (Almekhlafi et al., 2020). Students' comprehension of the material can be better facilitated when it is broken down into smaller chunks and presented using language that they can easily understand.

Their comments highlight the importance of a student-centred approach to teaching, where what works for one student does not necessarily work for another (Kerimbayev et al., 2023; Sørensen et al., 2023). Teachers need to modify their instruction based on the learning styles, learning preferences and learning proficiencies of their students. Differentiated instruction techniques, such as flexible pacing, varied modalities of instruction and targeted support for struggling learners, can help address the range of needs in heterogeneous classrooms and promote equitable access to learning (Smale-Jacobse et al., 2019; Tomlinson et al., 2003). When students take ownership of their learning, they are more likely to acquire reading comprehension skills.

Overall, the qualitative results point to the need to adopt teaching practices that facilitate the pacing of instruction and the clarity of explanations in order to improve reading comprehension. Instructors can adopt the teaching practices that are learner-centred in order to help diverse EFL learners learn more effectively.

5.8 Strategies and Solutions to Overcome Vocabulary and Reading Comprehension Strategies

Multiple methods are utilized by Iraqi secondary school students to enhance their English vocabulary while learning English as a foreign language according to research findings. Students develop their language skills through independent study and technology support and contextual learning together with social interaction. Some students find success with active vocabulary enhancement techniques while others struggle due to lack of motivation and poor educational assistance. Analysis through

current literature demonstrates their effectiveness while identifying improvement areas (Nazeer, Mukhtar, & Azhar, 2023; Wahyudin & Pustika, 2021).

Users of digital tools consistently choose resources like Google Translate and online dictionaries for their translation needs. Students commonly use digital platforms to obtain instant word definitions which allows them to understand unknown words quickly. Research evidence shows that technology-based vocabulary instruction proves more effective than traditional teaching methods across different learning environments because digital tools improve language learning (Ghalebi, Sadighi, & Bagheri, 2020). University EFL students demonstrated superior vocabulary retention when combining digital resources with mobile-assisted language learning methods (Dan et al., 2025).

The study by Lin, Hwang, Fu, and Cao (2020) proves that contextual gaming improves vocabulary acquisition using interactive simulations that replicate real-life language environments. Several problems emerge when learners depend too heavily on translation tools. While translation tools offer quick word definitions they do not provide nuanced meanings and proper context which often leads to misunderstandings. According to Putri and Sari's (2020) study, digital tools paired with tasks that require deep cognitive processing like writing and speaking new vocabulary lead to better learning outcomes than direct translation methods.

Students experienced significant vocabulary development through English-language media exposure beyond what digital tools could offer. Students benefited from watching English movies and listening to English songs and reading English stories because these activities helped them learn vocabulary through their context. Students learning English as a foreign language developed self-regulated learning behaviors which enhanced their vocabulary through watching English YouTube videos according to Wang and Chen (2020). According to Nazeer et al. (2023), English media exposure creates natural learning environments that enable students to improve both vocabulary understanding and retention. Pranawengtias (2022) discovered that when learners interact with media content by discussing new vocabulary from movies or books they watch they improve their retention and understanding of those words. Watching English-language content alone falls short in building an active vocabulary. According to research conducted by Ghalebi et al. (2020), the practice of actively engaging with media content by writing down new words and using them in personal conversations helps maximize learning benefits. Students acknowledged watching English-language content but showed minimal evidence of purposeful vocabulary-learning activities

during their media consumption. The effectiveness of language learning improves when learners practice writing summaries and repeating key phrases or when they discuss content in English.

A number of students identified social learning as a method to acquire new vocabulary. Participation in online communities like YouTube and Facebook groups enables learners to discover new vocabulary terms and comprehend their meanings through practical use. Derakhshan and Zhang (2021) demonstrated how social interactions in second-language learning help because peer engagement leads to better vocabulary retention. Engaging in discussions and authentic communication helps learners better retain new vocabulary while understanding how to use it correctly. According to research peer interaction boosts language learning because learners who explain vocabulary to others gain stronger understanding of the terms (Wahyudin & Pustika, 2021). According to the "protégé effect," learners improve their retention of new vocabulary through teaching because sharing vocabulary with peers promotes better learning retention (Nazeur et al., 2023). A portion of learners miss out on the benefits of social learning interactions. The fear of making errors and low self-assurance in their language abilities may lead some users to avoid participating in online discussions. Structured classroom exercises that replicate real-world social interactions through group discussions or online forums for vocabulary practice could help bridge this gap and motivate more learners to participate in collaborative vocabulary learning.

Educators often recommend deliberate practice together with repetition as an effective learning strategy. Students improved their vocabulary understanding by engaging in daily English study sessions and practicing new words every day. In the practice outlined learners follow deliberate practice principles by participating in structured activities focused on specific objectives to improve their skills progressively (Lin et al., 2020). Through repetition vocabulary moves into long-term memory and becomes accessible during communication. Zhang and Zou (2022) discovered that vocabulary learning demands multiple exposures to words in various situations for deep processing and better memory retention. The technique of splitting texts into smaller sections helps students learn better because cognitive load theory endorses this approach since it reduces cognitive overload by creating manageable learning units (Putri & Sari, 2020). The effectiveness of deliberate practice results from maintaining motivation and active engagement. The lack of consistent effort in vocabulary learning from students becomes apparent when they claim inattentiveness during lessons and express no

passion for English studies. Hazaymeh's (2021) research reveals that language learning achievements are positively affected by student motivation through active participation in vocabulary learning tasks among motivated students. Gamification techniques such as vocabulary challenges and interactive quizzes together with reward systems help teachers improve student learning enjoyment and engagement (Lin et al., 2020).

Even after applying various learning strategies students continued to experience difficulty in learning vocabulary but their struggles were specifically pronounced when dealing with academic vocabulary. Students stated that understanding technical vocabulary required additional effort because they needed to translate the terms to comprehend their meaning. Academic vocabulary differs from regular language due to its abstract nature and complexity which makes learning it particularly challenging.

Research by Nazeer et al. (2023) demonstrates academic word lists' significance because they gather academic texts' specialized vocabulary. Zhang & Zou (2022) found that students struggle to learn these terms because they seldom come up in daily speech or media. Explicit instruction through explanations and context-based exercises together with repeated practice in reading and writing establish the essential framework for teaching academic vocabulary effectively. Studies indicate that students learn to infer word meanings from context more effectively with direct vocabulary instruction (Pranawengtias, 2022). An effective method for teachers to enhance academic vocabulary instruction is to conduct corpus-based text analysis combined with teaching strategies such as paraphrasing exercises and writing tasks that utilize new vocabulary.

Overall, the study reveals that Iraqi secondary school students learning English as a foreign language utilize multiple vocabulary learning strategies which exhibit both positive aspects and drawbacks. Technology-assisted learning and media exposure help expand vocabulary but only active language use by learners determines their real effectiveness. Digital tools offer immediate support for students, but students need deeper cognitive processing activities to secure long-term vocabulary retention. Vocabulary development reaches peak performance when students engage directly with new words instead of only listening to media content. Social learning enhances both interaction and contextual understanding but learners' self-doubt prevents them from fully utilizing these academic benefits. Deliberate practice must be maintained to achieve learning success but motivation becomes the essential factor that sustains ongoing engagement. The challenges academic vocabulary learning presents for students stress the importance of teaching methods that go past standard classroom

activities. Interactive and targeted teaching methods can improve students' vocabulary learning experiences and lead to enhanced language proficiency.

5.9 Summary

This chapter discussed the factors that influence reading comprehension among secondary school EFL learners. The mixed-methods approach (both quantitative and qualitative) and analysis of the present study brought about several significant findings. Qualitative findings shed light on the important issues that students are facing in reading comprehension, such as limited vocabulary, low level of motivation and interest in reading, and lack of opportunities for reading and practicing reading strategies. On the other hand, quantitative results revealed that self-efficacy mediates between sub-measures of reading strategies and vocabulary size to predict reading comprehension. Thus, triangulating the study by using both approaches of data collection and analysis added value to the study, introducing a new model to our understanding of the reading comprehension processes of Iraqi secondary school EFL learners.

CHAPTER 6
CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

This chapter summarises the main findings of the study and show how the findings contribute to the body of knowledge, theory, practice, and methodology. The limitations that were faced in the current study will also be highlighted and how these can be addressed in future endeavours.

6.2 Summary of Key Findings of the Study

This study had five main research questions. The key finding for each research question is given in the following subsections.

6.2.1 Reading Strategies Among Iraqi Secondary School EFL Learners

The present study investigated Iraqi secondary school EFL learners' reading strategies, especially three main categories of reading strategies: problem-solving, support and global strategies. Descriptive statistical analyses were conducted to reveal how many times each type of reading strategy was done by participants, thus to reveal what was preferred by participants when it comes to reading comprehension strategies.

It was revealed that the problem-solving strategies were the most often employed strategies by Iraqi secondary school EFL learners, where this involved mostly re-reading difficult text, concentrating, and visualizing information. The support strategies were the second most often group of reading strategies that students utilised, which mainly included taking notes, paraphrasing, and underlining important parts of information to ease their comprehension. Finally, global strategies were also used with slightly lower frequency, however, participants were still determined to do such activities as deciding the purposes of reading, reviewing text characteristics, and exploiting context clues to aid comprehension.

Moreover, some strategies were more common than others which was attributed to the learners' personal preferences. Overall, these findings highlighted the types of reading strategies that secondary school EFL learners used most to facilitate their

reading comprehension. This study and the findings provided some suggestions to teachers and curriculum developers to optimise instruction by identifying the strategies that the Iraqi EFL learners used in reading comprehension and highlighting their effectiveness.

6.2.2 Level of Vocabulary Size Among Iraqi Secondary School EFL Students

The study measured participants' vocabulary size, which is an important part of language proficiency. The vocabulary size was measured by using a "Vocabulary Size Test" of Beglar and Nation. The test consisted of 40 items and the potential score range was between 0 to 40. The exploratory analysis of the study suggested that the average participant score was 25 words from the total of 40 words which indicates that the secondary school students in Iraq have a moderate level of vocabulary knowledge.

In order to get a more nuanced picture of individual performance, achievement scores were divided into five groups: 'Very low' (1-8), 'Low' (8.1-16), 'Intermediate' (16-24), 'High' (24.1-32), and 'Very high' (32.1-40). The results showed that the largest proportion of participants (51.1%) were in the Intermediate level and an additional 27.5% were in the High level. On the other hand, only a small amount of people were considered Very high (15.2%), Low (5.6%), or Very low (1%).

The results showed that the majority of Iraqi secondary school students had an 'Intermediate' level of lexical knowledge in English, which was probably due to the status of English as a foreign language in Iraq and the limited use of English in daily communications. This high number of 'Intermediate' levels indicates the fact that the participants are somewhat familiar with English vocabulary, while the low number of the participants in the 'Low' and 'Very Low' levels suggests that the participants have some knowledge or mere exposure to the English language. Furthermore, the small number of 'Very high' level indicate that students with huge English vocabulary are not very frequent, and full proficiency in English is perhaps rare with Iraqi EFL students.

6.2.3 Relationship Between Vocabulary Size, Reading Strategies, and Reading Comprehension

This study was conducted to explore whether there is any relationship between vocabulary size and reading comprehension, and the focal point of the study was to

investigate how individual differences in these factors would influence reading comprehension of Iraqi secondary school EFL students. However, prior to analysis, the researcher decided to investigate the students' performance on a reading comprehension test composed of two tasks, each consisting of five questions and thus made up of a total of 10 points. It was found that the students' average performance on the test was 6 out of 10, suggesting that the test was moderately difficult for the participants.

To test whether and how the relationship between reading strategies and vocabulary size predicts reading comprehension, the study used the multiple linear regression analysis. The three reading strategies as well as vocabulary size served as independent variables, and reading comprehension as the dependent variable. The regression analysis showed that the variables of problem-solving strategy and vocabulary size were the only significant variables that predicted reading comprehension scores. In more specific terms, when the participants had larger vocabulary size and relied more on their problem-solving reading, they performed significantly better on the reading comprehension task.

Altogether, the regression model was significant, accounting for 37 percent of the variance in reading comprehension scores. Notably, neither the global nor the support reading strategy proved to contribute significantly to reading comprehension, as reflected in the non-significant correlations.

6.2.4 Mediating Effect of Self-Efficacy on the Relationship Between Reading Strategies, Vocabulary Size, and Reading Comprehension

The fourth research question of the study investigated whether student self-efficacy might mediate the relationships between reading strategies, vocabulary size and reading comprehension. Before assessing these relationships, the study measured participant self-efficacy, which Henk and Melnick (1995) suggest can come from four key sources; observing one's own progress (e.g., read the longest book yet, found a missing word that was challenged), social feedback (e.g., teacher said I am a good reader), observational comparisons (e.g., smarter than Johnny), and psychological states (e.g., I am very good at reading, I believe in myself).

Descriptive statistical analyses were used to obtain the mean and the standard deviation for each component of self-efficacy. The findings indicated that Iraqi secondary school EFL students showed relatively high self-efficacy in the majority of

the components, particularly in observing their own progress and receiving social feedback. Observing was their most frequent component. It is safe to say that observing their own progress was the most commonly practiced strategy. This means that students were actively involved in self-evaluating their capabilities and monitoring their development over time. This fosters confidence and motivation in students to read.

Students' self-efficacy was also influenced by social feedback, with participants reporting high levels of confidence based on the feedback they received from the people in their environment. This social feedback from parents, teachers and peers seemed to function as external confirmation of their reading competence, and, in turn, students' reports of feeling valued and competent as readers in their communities helped to cultivate self-worth in the academic realm. When students feel valued and competent as readers in their social environment, it helps to promote more positive motivation and empowerment to engage in reading tasks and challenges.

Observational comparison, which refers to comparison with their peers, indicated moderate levels of self-efficacy. Iraqi students believed that they had larger vocabulary sizes and could usually guess more words than their peers, but they rated their overall reading ability and reading frequency as similar to their peers. Comparison with peers served as a benchmark against which Iraqi students evaluated their own reading skills and abilities. The moderate levels of self-efficacy in this dimension suggest that students might not feel that they are particularly better or worse readers than their peers, which can be interpreted as a realistic self-assessment of their reading performance.

The psychological states related to self-efficacy, such as feeling relaxed and enjoying reading, had moderately high ratings. In general, most students considered themselves to be competent readers who liked reading. Interestingly, the psychological aspect of self-efficacy received the second-lowest scores compared with most of the other sources, suggesting that even though Iraqi students might feel satisfied and pleasure in their reading activities, they are less likely to make explicit connections between their reading success or confidence and the psychological states they experience when reading. However, the moderate levels of self-efficacy in this dimension still point to a positive association between students' psychological states and their reading abilities, and the importance of providing positive emotional experience in reading to promote self-efficacy and reading motivation.

After these descriptive analysis of the level of self-efficacy for secondary school EFL learners in Iraq, the study investigated the moderating effect of self-efficacy on the relationship between four reading strategies (global reading strategies, problem-solving reading strategies, support reading strategies), vocabulary size, and reading comprehension. The PROCESS Macro for IBM SPSS was used to run the different analyses to test each research hypothesis of the study. Below is a summary of the findings.

6.2.5 Effect of Self-Efficacy on Reading Strategies

This study examined Iraqi secondary school EFL students' self-efficacy relationship with different reading strategies and identified a substantial relationship with support strategies but found no significant link with the global or problem-solving strategies. Participants who possess strong self-efficacy beliefs tend to use support strategies including rereading, note-taking, and dictionary consultation because those methods deliver quick and concrete comprehension benefits. Students who felt confident using support reading strategies struggled to extend that confidence to global strategies because these require broader cognitive processes such as predicting content and summarizing and integrating prior knowledge or to problem-solving strategies that demand adaptive reading approaches during challenging sections.

The results also suggested that the instructional practices in Iraqi secondary schools significantly influence students' development of strategic preferences. Indeed, the Iraqi EFL curriculum focuses more on rote memorization and teacher-led instruction rather than encouraging students to develop critical thinking and strategic reading skills. The lack of training in advanced reading strategies prevents students from developing the metacognitive awareness needed to use global and problem-solving reading approaches. The design of classroom reading materials which consist of short texts meant for answering comprehension questions strengthens students' dependence on support strategies because these strategies match task demands rather than helping students engage more profoundly with the texts.

It was also possible that the examination-centered approach of Iraq's educational system significantly affected these findings. Students in high-stakes testing environments choose strategies that produce quick results like support strategies because global and problem-solving strategies demand more cognitive effort and seem

less practical for achieving exam success. Students who possess high self-efficacy might still struggle to use advanced reading strategies because they do not receive direct instruction about metacognitive methods.

Overall, the study results demonstrate the necessity for educational programs to implement specific strategy teaching in the EFL curriculum. Educators who promote metacognitive awareness while teaching multiple reading strategies enable students to build essential skills for engaging with complex texts independently of immediate comprehension aids. Educators must integrate motivation-enhancing techniques to promote a well-rounded use of reading strategies among students which will enhance their overall reading proficiency.

6.2.6 Effects of Self-Efficacy on Vocabulary Size

The study examined the relationship between self-efficacy and vocabulary size to establish that self-efficacy does not directly influence vocabulary learning outcomes. Research findings show that vocabulary development relies more heavily on exposure to new words and systematic practice techniques than on self-efficacy. Study outcomes dispute the assertion that self-efficacy contributes to all aspects of language learning.

The study demonstrates that while self-efficacy encourages vocabulary learning motivation, it does not improve vocabulary retention abilities. Some studies also found that although high self-efficacy encourages learners to adopt vocabulary learning strategies, it does not guarantee actual vocabulary development . Vocabulary acquisition involves more than psychological confidence because it needs instructional methods alongside reinforcement practices and regular exposure to new language through actual use.

The study outcomes match theories of language learning that have been previously established. Social Cognitive Theory by Bandura (1997) suggests that while self-efficacy affects learning behaviors learning vocabulary requires external linguistic input as its main source. Krashen's Input Hypothesis (1982) establishes that language acquisition requires comprehension of input and this leads to vocabulary expansion through exposure rather than through self-assurance. The Simple View of Reading (Gough & Tunmer, 1986) and Perfetti's (2007) Lexical Quality Hypothesis show that vocabulary development primarily occurs in structured classroom environments rather than through students' personal evaluations of their capabilities.

The divergence between this study's results and those of earlier research may result from the differences in employed research methodologies as well as the contexts of study. The connection between self-efficacy levels and the extent of vocabulary development depends on different learner groups as well as motivational factors and assessment techniques used in studies. The researcher implemented direct assessment techniques to accurately measure vocabulary learning which showed self-efficacy had minimal influence on vocabulary acquisition. Although self-efficacy leads to increased motivation and sustained effort, EFL learners do not experience direct vocabulary growth from it. Structured vocabulary instruction needs to combine direct teaching approaches with exposure and reinforcement techniques to boost learner confidence.

6.2.7 Effects of Vocabulary on Reading Comprehension

The study findings revealed a significant relationship between students' confidence in reading and their reading comprehension proficiency. This supports the perspective that students' self-belief in their reading abilities directly affects their reading performance. The confidence EFL learners have in performing reading tasks influences their motivation and engagement, as well as their ability to persist through challenges in reading comprehension. The students with high reading self-efficacy show increased determination and resilience when reading, thus improving comprehension skills. The obtained findings of the study are consistent with previous studies. Research showed that self-efficacy levels directly affect positive reading achievement outcomes. Students with greater self-efficacy use metacognitive techniques such as summarization and questioning along with inferencing which enhances their comprehension ability.

The findings support Schunk and DiBenedetto's (2020) study which demonstrates that self-efficacy interacts with cognitive and metacognitive strategies. Students with high self-efficacy engage in active reading practices such as content prediction. They also monitor their understanding and modify comprehension strategies when they encounter difficulties. Hence, self-efficacy serves as a foundational element for building reading strategies that ensure academic achievement over time.

According to Bandura's Social Cognitive Theory (1997), self-efficacy influences learning behaviors through cognitive and motivational processes. Students with high self-efficacy demonstrate persistence in the face of challenges, thus choosing

strategic approaches such as contextual analysis and sentence deconstruction over quitting. Overall, this theoretical model indicates that self-efficacy plays an essential role in the development of independent and systematic reading abilities.

6.2.8 Mediating Role of Self Efficacy in the Relationship Between Strategies and Comprehension

The study demonstrated self-efficacy as an essential factor that mediates how reading strategies affect Iraqi secondary school EFL students' reading comprehension. The study indicates that self-efficacy fully mediates how reading support and global strategies affect comprehension, indicating students with reading confidence use effective techniques like summarizing and planning which results in better comprehension. Studies show that learners possessing high self-efficacy actively use metacognitive reading strategies which results in improved reading proficiency. According to Bandura's (1997) Social Cognitive Theory, the evidence suggests that students who believe in their capabilities show stronger motivation and endurance when handling tasks that demand mental effort.

The study also shows that self-efficacy fails to function as a mediating factor between the use of problem-solving reading strategies and reading comprehension. Problem-solving strategies stand apart from global and support strategies because they demand reactive responses that learners use instinctively when comprehension problems arise. The need to use these strategies depends on the demands of the situation rather than the learner's confidence level. The educational setting in Iraq that prioritizes teacher-led teaching methods and memorization practices leads students to depend on reactive reading strategies instead of developing self-regulated approaches. Research demonstrates that strong linguistic skills significantly impact problem-solving abilities because students with advanced vocabulary and grammatical knowledge can better infer meanings and overcome comprehension challenges independently of their self-efficacy beliefs (Hadomi, 2012; Alharbi, 2018).

The research findings highlight the necessity of instructional methods that improve students' self-efficacy levels together with their language proficiency. Teachers need to adopt metacognitive approaches to build reading confidence while offering direct lessons on vocabulary growth and inferencing abilities. It is essential for upcoming research to examine more cognitive variables including working memory and

cognitive flexibility which might affect how problem-solving strategies interact with comprehension abilities. Educators who study these dynamics will be able to create superior teaching methods to help EFL students enhance their reading comprehension skills along with their confidence.

6.2.9 Mediating Role of Self-Efficacy in the Relationship Between Vocabulary and Comprehension

The study showed that self-efficacy fails to act as a mediator between vocabulary size and reading comprehension for Iraqi secondary school EFL students, but demonstrated that lexical knowledge plays a crucial role in reading proficiency. The essential role of self-efficacy in learning motivation and engagement does not extend to vocabulary development since vocabulary acquisition proceeds independently from reading confidence. Research shows that vocabulary size serves as a strong indicator of reading comprehension because it allows learners to interpret and understand textual meaning through decoding and inferencing. Students who possess larger vocabulary size are likely to to get involved in essential complex cognitive processes for text comprehension that include inference-making and summarization.

It seems also that vocabulary acquisition operates at a basic linguistic level because self-efficacy does not serve as a mediating factor in this process in this study. Students who possess large vocabularies can understand written material effectively despite how skilled they feel at reading. The results confirm bottom-up reading models by showing linguistic knowledge as the primary driver of comprehension rather than higher-order cognitive and affective elements like self-efficacy. While reading strategies necessitate metacognitive regulation vocabulary knowledge develops from memorization combined with multiple exposures which typically happens under teacher-led teaching methods that fail to build self-efficacy.

Reading comprehension is directly affected by vocabulary size while self-efficacy determines success in strategic tasks like inferencing and summarization. Although vocabulary instruction is necessary in education, combining it with strategic reading activities helps improve both students' vocabulary knowledge and their confidence in reading. Research should further explore how self-efficacy relates to vocabulary acquisition and reading comprehension across various EFL environments through long-term studies and intervention research. Educators who understand these

dynamics will be able to create instructional methods that support EFL learners' reading development by tackling both their cognitive and motivational needs.

6.2.10 Qualitative Data Findings

Key findings that emerged from the focus group discussions regarding Iraqi secondary school EFL learners' reading comprehension difficulties are as follows: The participants reported that vocabulary was the most influential factor affecting their reading comprehension. They explained that many of the terms used in academic texts were difficult for them to understand, and their reading either did not progress or took more time if these terms were not comprehended. Some of them explained that they would try to infer the meaning of difficult words from the context of the sentences in which they were used.

Others said that they would resort to the use of dictionaries; regardless of the method, it was clear how vocabulary was not only affecting their understanding of individual words, but also their ability to comprehend the meaning of entire texts. However, the focus group discussions indicated that training for decoding and the use of dictionaries may not be sufficient to address the issue; context-based learning and pedagogical strategies for understanding may be crucial here as well.

A second main issue hampering the reading comprehension of Iraqi secondary school EFL learners was the low level of interest reported by most participants. Many students stated that they felt unenthusiastic about learning English. This poor interest for English was regarded as a motivation-related factor, as it hindered the motivation of Iraqi secondary school EFL students to read English texts. Some participants believed that their poor level of interest in English was caused by their inattentiveness during lessons and their lack of exposure to English programmes on television and radio.

Another big issue that came up from these findings was the issue of not having enough practise in English language skills, especially reading, which was a factor that degraded reading comprehension. Students felt there was not enough provision for reading in the curriculum; more opportunities for adequate language practise and reading to varying topics would facilitate balanced language practise sessions and reading material, and thus have an important role to play in improving reading comprehension skills, as well as in eradicating the lack of exposure and practise in English language activities.

Furthermore, students' focus group comments shed light on the most critical failure of inadequate instructional support that they identified as their biggest impediment to comprehension when they described challenges ranging from the speed at which their teachers taught the lessons to how their teachers were using unknown words with no reference or translation. The findings shed light on the centrality of instructional support challenges to pacing, explanation and pronunciation. They also revealed the importance of open discussions and creating a safe learning environment that carefully measures students' needs and applies appropriate instructional strategies when promoting reading comprehension (Alshuraiaan, 2023; Ottenbreit-Leftwich et al., 2010).

Lastly, the students pointed out that poor teaching was 'an insurmountable' obstacles to reading. They asked teachers to slow down when they were teaching. Not only that, students wanted teachers to explain what they are reading in more detail. A student-centric teaching approach which can be adjusted to meet the different styles of learning and different paces of each individual student is the solution to tackle this challenge. In brief, based on the analysis of the causes of students' reading comprehension problems, we can indicate that teachers need to improve their teaching methods to make their methods of teaching clearer and adjustable.

Considering this, the qualitative data extracted from the focus group discussions were rich in perceptions that added another dimension to our exploration of the contributing factors leading to poor reading comprehension performances of Iraqi secondary school EFL students. The qualitative results corroborated and complemented the quantitative results by providing a comprehensive picture of the challenges experienced by Iraqi secondary school EFL students and the need for tailored intervention and learning environments that can facilitate the reading comprehension performances of Iraqi secondary school EFL students.

6.3 Contributions of the Study

The results and findings of the study had several significant contributions across various domains, including contributions to the existing body of knowledge, language theory, and enhancements in language pedagogy and practice, as outlined in Table 6.1.

Table 6.1
Summary of the Contributions of the Study in Different Domains

Domain	Contributions of the Study
Existing Body of Knowledge	- Fills a gap in EFL research by addressing the understudied issue of reading comprehension difficulties among Iraqi secondary school students.
	- Examines the influence of linguistic, cultural, and educational challenges specific to Iraqi EFL learners, providing new empirical insights.
	- Extends previous research on vocabulary size, reading strategies, and self-efficacy by applying these concepts to the unique Iraqi context.
	- Increases the depth and reliability of findings by triangulating data from quantitative surveys and qualitative focus group discussions.
Theory	- Contributes to the interaction of bottom-up (vocabulary size) and top-down (reading strategies) processes in reading comprehension, offering insights into how these elements enhance EFL learners' reading performance.
	- Enhances the integrative account of reading by highlighting the interplay between cognitive strategies (reading strategies and vocabulary size) and affective factors (self-efficacy) in determining reading comprehension outcomes.
	- Provides support for metacognitive theory by showing how students' awareness of their own reading strategies contributes to comprehension, revealing how metacognitive factors influence reading performance.
	- Adds to social cognitive theory by investigating the role of self-efficacy in comprehension, demonstrating how students' confidence in their reading abilities impacts their comprehension of English texts.
Practice	- Offers practical insights for educators on the importance of focusing on vocabulary development and reading strategies to improve comprehension among Iraqi EFL learners.
	- Suggests integrating metacognitive strategies and interventions aimed at improving students' self-efficacy to enhance reading comprehension outcomes.
	- Recommends a shift towards personalized, differentiated instruction to meet individual student needs in overcoming reading comprehension challenges.
	- Encourages educators to address both linguistic and affective factors in their teaching practices, fostering a more holistic approach to reading instruction in EFL classrooms.
Methodology	- Introduces a mixed-methods approach combining quantitative and qualitative data to study reading comprehension, enhancing the depth and trustworthiness of findings.
	- Applies mediation analysis to uncover the complex relationships between vocabulary size, reading strategies, self-efficacy, and reading comprehension.

Domain	Contributions of the Study
	- Introduces a holistic framework that integrates linguistic, cognitive and affective factors in reading comprehension research, paving the way for future studies to adopt more comprehensive approaches to EFL learning.

These contributions are discussed and elaborated in the following subsections below.

6.3.1 Existing Body of Knowledge

The research fills several critical gaps in EFL literature by studying reading comprehension challenges faced by Iraqi secondary school students. Although numerous studies have investigated reading comprehension across different EFL environments, research on Iraqi learners remains scarce despite their unique linguistic and educational obstacles. The study expands comprehension of reading factors and broadens EFL research through its investigation of an understudied population.

This research makes a significant contribution through its analysis of the language difficulties encountered by Iraqi students learning English as a foreign language. Research has established vocabulary size as an important factor in reading comprehension, but its significance for Iraqi educational systems remains insufficiently investigated. The study demonstrates that reading comprehension depends directly on vocabulary size without any influence from self-efficacy. The results dispute the belief that reading confidence enhances vocabulary knowledge's effect on comprehension because linguistic competence emerges as the main factor driving understanding outcomes. The study enhances current research by demonstrating how vocabulary size affects reading comprehension and supports the need for vocabulary development in Iraqi EFL education based on empirical evidence.

The research provides findings about the educational and cultural factors that affect how Iraqi students develop reading comprehension skills. The Iraqi educational framework maintains a teacher-focused approach where memorization supersedes both critical analysis and independent strategic thinking. This teaching method impacts students' interaction with reading materials and their reading strategy development. The results of the study show that self-efficacy demonstrates an effect on certain reading strategies but not problem-solving strategies. These findings advance our understanding

of the effects educational environments have on reading practices and show why teaching must include strategies that support independent learning and strategic reading activities.

The study of vocabulary size, reading strategies, and self-efficacy among Iraqi EFL learners extends the application of these findings past traditional Western and East Asian contexts in English language education. The findings suggest that seading comprehension depends on vocabulary knowledge, but self-efficacy and strategy usage show differing levels of effectiveness based on specific situations. Significant effects on educational variables emerge from the interaction between instructional methods and cultural education attitudes alongside learner autonomy. Effective reading intervention programs and second language acquisition models must take different contextual factors into account to achieve success.

The findings from this research offer valuable practical tools for English language instruction in Iraq and similar educational environments. Instructional programs need to prioritize meaningful vocabulary acquisition because vocabulary size has been confirmed as important. The research indicates that Iraqi students can build large vocabularies through repetitive learning but face comprehension difficulties because they lack strategy training and self-efficacy support. Integrating vocabulary instruction with reading strategy training produces better learning outcomes and allows students to connect with texts on a deeper level.

The study findings also offer crucial practical applications for English as a Foreign Language instruction in Iraq and similar educational environments.. The educational system's focus on finding correct answers rather than fostering independent problem-solving skills leads students to depend on reactive strategies. By teaching students to plan their reading while continuously monitoring and evaluating their understanding, educators can implement a learner-centered approach that improves comprehension results. Research supports the integration of metacognitive training within EFL classrooms which stresses the necessity to develop student awareness regarding their reading processes.

The study provides practical benefits by highlighting how to encourage students' reading self-efficacy. Research findings show that self-efficacy does not serve as a mediator between vocabulary size and comprehension but influences the application of specific reading strategies. The implementation of confidence-building methods like goal-setting and positive reinforcement along with scaffolded reading

tasks helps increase student engagement and persistence. Educators who implement these strategies in reading instruction generate a supportive learning atmosphere which motivates students to claim responsibility for their reading progress.

This research provides important insights for the education of teachers and their ongoing professional development. The significant impact of instructional methods on reading strategies requires teachers to develop abilities that support vocabulary growth and strategic reading skills. Training programs need to develop methods that boost student independence in learning while incorporating instructional strategies into education and helping students gain confidence in reading. Improving teachers' skills to teach both mental processing and emotional engagement in reading leads to better outcomes in EFL instruction effectiveness.

The research results suggest multiple pathways for subsequent academic studies. The research reveals important connections between vocabulary size and reading strategies and self-efficacy, but shows that more research is needed to identify other factors affecting reading comprehension among Iraqi EFL learners. The study of reading motivation combined with cognitive flexibility and working memory capacity will lead to a more complete understanding of how reading works. Research studies that follow the progression of these factors through different time periods would reveal additional insights into their interactive effects on reading proficiency. Research experiments involving specific teaching interventions like vocabulary enhancement programs and strategy-based reading instruction could lead to improved teaching methods in EFL education.

The research study addresses a major gap in the understanding of EFL reading comprehension for Iraqi secondary school students and adds valuable insights to the existing academic literature. The study expands awareness of how linguistic, cultural and educational factors shape reading ability while applying established research on vocabulary scope and reading strategies together with self-efficacy to different settings. The results suggest actionable benefits for curriculum developers and educators in creating teacher training programs and reading interventions which should integrate methods that build linguistic skills and promote strategic reading involvement. The study delineates essential issues which establish a robust groundwork for subsequent research to enhance EFL reading instruction in Iraq and comparable educational environments.

6.3.2 Theory

This study presents multiple critical theoretical advancements in EFL reading comprehension by combining cognitive, metacognitive, and social cognitive perspectives. This research adds to theoretical frameworks through its analysis of bottom-up and top-down process interactions while broadening the integrative reading model and strengthening metacognitive theory along with self-efficacy's role in social cognitive theory. The study reveals insights into the way linguistic skills and strategic reading practices combined with emotional influences determine reading comprehension performance for EFL students.

The study provides an important theoretical insight into the interaction between bottom-up and top-down processes in reading comprehension. Understanding text relies on bottom-up processes such as vocabulary knowledge and word recognition because these elements create a foundational linguistic structure necessary for decoding and text interpretation. High-level cognitive abilities enable learners to use reading strategies to interpret texts and infer meaning through top-down processes. While previous research examined each process in isolation, this study demonstrates how both bottom-up and top-down processes work together to enhance the reading comprehension abilities of Iraqi EFL students. The investigation describes reading comprehension as an interactive and evolving process which emerges from the combination of vocabulary knowledge with reading strategies.

The findings show that the vocabulary size of an individual acts as the main determinant of comprehension in bottom-up processing due to the requirement of decoding and word recognition to interpret texts. Reading strategies also provide essential support to comprehension for students who have limited vocabulary knowledge. The data of the study validates theoretical models that maintain successful reading requires both language proficiency and strategic reading methods as critical reading process components. Empirical research confirms theories that demonstrate how bottom-up and top-down processes collaborate to deepen our knowledge of EFL students' text processing abilities.

The study extends the comprehensive reading framework by exploring the interactions between cognitive and affective variables that influence reading comprehension outcomes. Previous reading comprehension models focused mostly on cognitive factors including vocabulary mastery as well as working memory abilities and

the application of reading strategies. Recent theoretical developments show that psychological factors such as motivation and self-efficacy together with confidence levels play critical roles in shaping reading behaviors and their outcomes. This study combines self-efficacy into its analysis framework to explore reading comprehension through both cognitive processes and affective elements as primary factors.

The findings showed vocabulary size and reading strategies affect comprehension directly while self-efficacy does not mediate this relationship. The study findings demonstrate that self-efficacy does not lead to universal enhancements in reading performance score. The study also demonstrates that self-efficacy significantly affects complex reading tasks that require strategic skills but has no impact on basic linguistic tasks such as vocabulary retrieval and word recognition. This study advances our theoretical grasp of how self-efficacy affects reading comprehension through the identification of specific situations where its influence emerges. The research demonstrates that reading models should incorporate cognitive and affective factors as interconnected components instead of treating them as separate or additive elements.

The study also presents empirical evidence supporting metacognitive theory through its analysis of improved reading comprehension among students who grasp their reading techniques. According to metacognitive theory, self-regulation serves as a vital learning element because successful readers engage in planning, monitoring and evaluation to optimize their reading processes. Students who actively implement metacognitive strategies achieve better comprehension outcomes.

The study findings demonstrate that metacognitive awareness enhances reading comprehension by showing that understanding depends on both linguistic knowledge and the reader's ability to manage their reading approach. Learners achieve better navigation through complex texts and improved comprehension when they consciously implement reading strategies. The study broadens current metacognition research through its demonstration of relevance in Iraqi EFL education which has always focused on memorization instead of strategic learning methods. Readers who use metacognitive strategies perform better, because these methods allow them to understand complex texts more effectively and overcome comprehension challenges.

Through its investigation of self-efficacy in reading comprehension, this study adds to social cognitive theory. According to Bandura's (1997) social cognitive theory, self-efficacy determines learners' motivation as well as their effort and persistence during learning activities. The concept of self-efficacy has received extensive research

attention within language learning, but its precise function in reading comprehension continues to develop through ongoing studies. The research extends current understanding by exploring interactions between self-efficacy and linguistic and cognitive factors during reading.

The data of the study also showed that self-efficacy correlates with reading comprehension and strategy use but does not function as a mediating factor between vocabulary knowledge and comprehension abilities. Self-efficacy appears to affect reading performance indirectly through its impact on students' readiness to read and their determination to overcome difficulties instead of directly improving comprehension skills. This analysis enhances social cognitive theory applications to reading because it explains how self-efficacy operates as a factor in language acquisition. The issue emerges regarding methods educators can employ to build reading self-efficacy among students who experience teacher-centered learning and exhibit limited confidence in their autonomous reading skills.

Overall, this study advances a more holistic understanding of reading comprehension as a dynamic process through its demonstration of the interaction between vocabulary size, self-efficacy, and reading strategies. The study enhances the understanding of affective influences on reading comprehension by defining self-efficacy's impact on reading results. The study validates theoretical models that focus on reading success through strategy use by showing how metacognitive awareness and self-regulation play important roles. The findings from this research establish a strong groundwork for upcoming studies and teaching methods that will enhance reading comprehension skills in students learning English as a foreign language.

6.3.3 Practice

The practical contribution of the study is that its findings could help those who develop curricula and teaching strategies in the field of EFL instruction, like educators and policymakers. Recognising what effects reading comprehension is and how it works not only helps to understand the process of reading for Iraqi secondary school EFL learners, but also provides some practical recommendations for teaching and helping EFL learners in the classroom in Iraq.

The results emphasised the role of developing vocabulary size in increasing reading comprehension, an indication for teachers to include more vocabulary-learning

activities, such as learning words in context, word-game activities and meaningful exposure to academic words in context, which would help to create more meaningful learning experiences that facilitate memorisation and help to better understand new academic words. Giving students access to bilingual dictionaries online or in classrooms can also help students develop their independent vocabulary learning, as well as help them read more efficiently.

The study's finding that self-efficacy mediated the relationship between reading strategies and reading comprehension can lead educators to design targeted their reading capabilities. Teachers can deliver targeted interventions that instill student confidence in their reading ability. Asking students to employ metacognitive strategies in classrooms that go beyond direct instruction (e.g., reminding students to reflect on how they approach reading, establishing achievable goals, and tracking their progress over time) can also assist students in perservering with complex texts. Scaffolded tasks, peer collaborations and differentiated instruction can help students develop confidence in their ability to tackle difficult texts in the first place. When teachers highlight the role of effort and persistence in reaching reading goals, students can internalise the ability to get back on track and persevere when they struggle with reading comprehension.

Since lack of interest has been proven to have a significantly negative effect on the development of reading comprehension among Iraqi secondary school EFL students, the findings of this study may be beneficial to teachers in revitalising classroom instruction and fostering a culture of engagement and curiosity. Drawing from the principles of differentiated instruction and student-centred learning, teachers can cater to the needs of students by personalising instruction in ways that align with their interests, preferences, and cultural backgrounds (Cornelius-White & Harbaugh, 2009; Lee, 2020). Utilising a variety of texts that reflect students' lived experiences, interests, passions, and prospects can offer an authentic motivation for reading. Furthermore, integrating multimedia resources, technology-enriched learning, and interactive platforms will enhance the relevance of the instructional materials and make them accessible and meaningful to students by holding their attention and encouraging their engagement in literacy activities.

Furthermore, the study provides a pedagogical contribution by emphasising the importance of paying attention to the simultaneous role of affective and cognitive dimensions of reading instruction, since linguistic skills and affective factors such as self-efficacy are not independent of one another. In light of this interaction, the findings

encourage educators to approach literacy instruction in a more holistic manner than what is typically emphasised in EFL contexts, where literacy instruction tends to be more pedagogically narrow or skill-based. The pedagogical turn underscores the need to adopt a more supportive learning environment that can foster EFL learners' self-efficacy and thereby foster their motivation to engage with English texts. By utilising self-efficacy-enhancement strategies and other tools for coping with affective barriers to comprehension, educators can adopt more inclusive and effective instructional practices that will ultimately improve the experiences of EFL learners with different needs.

Since the reading comprehension levels of the students were different in our study, it will make it easier for teachers to provide feedback to the instruction and they will be able to give individual-level feedback. With the finding that instructional support is associated with improved reading comprehension, teachers can adjust their teaching style to match the need of the individual student. From the student's perspective, it is crucial to feel acknowledged and respected when they are struggling to express their ideas. When students feel that they are worthy of learning new concepts, they are more likely to engage in the learning process. Adaptive teaching refers to a style of teaching that can be adapted to the heterogeneous needs of students by changing the instructional strategies to fit the individual needs.

Last but not least, the qualitative conclusions on the challenges of practice and the inefficient modes of teaching that we documented in the focus-group interviews with our respondents highlight the need to rethink the curriculum design and assessment practices in EFL education. Teachers can work with curriculum designers and assessment specialists in the development of coherent and holistic instructional programmes that may include reading comprehension as a central learning objective. In the development of authentic assessment tasks that demand learners to use their reading skills in real-life contexts, we can obtain richer information about their reading comprehension competences, which can be used to inform our instructional processes. We can also promote a balanced curricular programme that can help learners to make the links between different language skills, namely, reading, writing, speaking and listening, and help to develop their broad language competences and improve their overall literacy performance.

These practical steps enable teachers, curriculum developers and policymakers to work together in building more inclusive and learner-centred learning environments

for EFL learners. Evidence-based teaching practices, systematic interventions and professional development can ultimately create a culture of literacy and make learners competent in dealing with the challenges of reading.

6.3.4 Methodology

This study expands the previous EFL reading comprehension research methodology by utilizing a mixed-methods design and mediation analysis, alongside a comprehensive framework that combines linguistic, cognitive, and affective factors.

The study presents a significant methodological advancement through its application of mixed-methods research which merges quantitative and qualitative data to achieve a deeper understanding of reading comprehension skills among Iraqi secondary school students learning English as a foreign language. Statistical analysis of key relationships within the quantitative data demonstrate generalizable results about vocabulary size and reading strategies along with self-efficacy's impact on reading comprehension. Focus-group interviews form the qualitative data brings depth to statistical results through detailed accounts of student perspectives and real-world experiences. The study gains enhanced credibility because it uses numerical data to identify patterns and student testimonials to explain those patterns. The study integrated qualitative insights to extend its investigation beyond basic relationship analyses by examining contextual and psychological elements of EFL reading development which enhances the application of its findings to actual educational settings.

This study used mediation analysis to study the multifaceted connections between vocabulary size and reading comprehension through reading strategies and self-efficacy. Traditional reading comprehension studies typically analyze direct connections between single factors and reading results but fail to address how indirect interactions shape reading performance. The study discovered the processes by which self-efficacy affects reading comprehension through its mediation of reading strategy effects. The methodology reveals complex interactions among variables to show more clearly how self-efficacy together with strategy use leads to improved reading comprehension. Subsequent research should extend this research approach to investigate additional factors that mediate or moderate how language acquisition and literacy development processes occur.

This study presents a framework which combines linguistic elements with cognitive and emotional factors for studying reading comprehension. Historically EFL research largely focused on vocabulary and grammar while overlooking the impact of cognitive and affective factors on language acquisition. This research outlines a framework in which reading combines linguistic abilities with cognitive approaches including metacognition and inference-making as well as affective elements like self-efficacy. The findings of the study demonstrate the interconnectedness of various academic domains that will guide future research in EFL reading studies towards comprehensive interdisciplinary approaches.

All in all, this study had a more systematic approach to the researching the reading comprehension among EFL learners. By incorporating both quantitative and qualitative approaches, it recognises that the understanding of reading is a complex issue and has multiple variables affecting the outcome. It allows us to go further into the cognitive processes of understanding, such as reading strategies and vocabulary size, as well as the affective factors, such as self-efficacy and curiosity. This study introduces new methodological approaches that support future EFL studies through multi-dimensional investigations that apply advanced statistical analysis and demonstrate context sensitivity in language learning and literacy development.

6.4 Limitations and Recommendations for Future Research

While this study provides valuable insights into the complex relationships between vocabulary size, reading strategies, self-efficacy, and reading comprehension among Iraqi secondary school EFL learners, it is important to acknowledge certain limitations that could inform future research.

The main limitation of this study is that the sample size of subjects is relatively small. A small sample size reduces the statistical power of the analyses and limits the generalisability of the results to a larger population of EFL learners. With more subjects and greater variability, we would have more power and more representative data on the learners for drawing more definitive conclusions about the relationships among the variables, and for conducting more subgroup analyses (e.g, how the reading comprehension processes differ between the subgroup who have lower proficiency level and the subgroup who have higher educational background). The larger data would

provide more power for additional subgroup analyses (e.g, participants with lower proficiency levels and participants with higher or intermediate proficiency levels).

Another limitation is that the study was conducted in a specific context, namely the Iraqi secondary schools. The results might be affected by the Iraqi educational system, such as curricular frameworks, instructional practices and sociocultural norms that are not typically found in other contexts. In turn, this could limit the generalisability of the results to other contexts or populations. Future research might address this by conducting cross-cultural or cross-national investigations into how contextual factors influence reading comprehension processes in different sociocultural and linguistic contexts. For instance, through comparative analyses of different educational systems across cultures, we could gain insights into the universality or variability of the mechanisms of reading comprehension and inform instructional practices that are culturally responsive.

The study used self-report questionnaires for measuring self-efficacy and reading strategies that may lead to data errors because of social desirability bias and participants' incorrect understanding. Therefore, the reliability of collected data might be compromised because students potentially misjudged their own reading skills and strategic approaches. Future research needs to improve self-reported data by incorporating direct observation techniques (e.g., Philip & Noel, 2017)and think-aloud protocols (e.g., Jincheng & Rahmat, 2022) which will provide objective measurements of reading strategies and cognitive involvement.

The study also examined linguistic and cognitive factors and students' emotional reactions but excluded external factors such as teaching approaches and socio-economic backgrounds. Low-income students frequently encounter obstacles in obtaining adequate English reading resources and educational technology. Therefore, future research should integrate socioeconomic variables alongside teacher perspectives and institutional components to fully understand reading comprehension challenges.

Further research could build on the quantitative results, which indicated the importance of self-efficacy in mediating the relationship between reading strategies and comprehension. Future studies could help students feel more confident and believe in their ability to read English texts successfully. For example, interventions that incorporate self-regulated learning – in which students are taught metacognitive strategies related to monitoring and regulating their learning, with the intention of encouraging metacognitive processes, motivation and behaviour – could help students

feel more confident and trusting of themselves when it comes to their English-language reading.

By acknowledging these limitations, future studies can enhance their methods, employ participants from different backgrounds, and explore other reading comprehension factors. This study contributes to EFL research by introducing a reading comprehension framework that combines linguistic, cognitive, and emotional factors despite existing limitations. Overcoming these constraints in future research will enhance educational methods and EFL learning worldwide.

6.5 Reflections on Research and Professional Context

The findings of the present study have several implications for language teaching in this specific context. Firstly, the study shows that reading comprehension is a construct which is greatly affected by linguistic and non-linguistic factors, namely, self-efficacy and interest in reading. This suggests that language courses for Iraqi EFL learners should not only focus on language proficiency, but also consider the sociocultural context unique to this group.

From a practical perspective, the findings of the present study offer valuable insights into the challenges faced by Iraqi secondary school EFL learners, including limited vocabulary, low interest, and insufficient practice opportunities. These insights can guide instructors and curriculum developers to plan suitable instructional approaches and material.

The results of the study provide valuable insights for teachers and curriculum designers in Iraqi. The study establishes that reading comprehension performance depends on students' linguistic abilities together with non-linguistic aspects like self-efficacy and reading interest. This study demonstrates the necessity for language teaching methods to progress past conventional proficiency-focused techniques by incorporating sociocultural and psychological components that impact student educational experiences.

The study identifies key challenges confronting Iraqi secondary school students learning English as a foreign language, which include but not limited to, poor vocabulary knowledge, limited practice opportunities, and little interest in reading activities. Through these insights, educators develop their tools to implement teaching strategies that address student diversity. Targeted enrichment activities may enable

students to build a strong vocabulary base which forms the essential foundation for understanding educational content. By implementing interactive educational approaches which utilize authentic texts and multimedia tools, educators can create learning environments that move beyond traditional vocabulary lists.

According to this study, current language teaching approaches fail to address the need to develop students' reading interest. The absence of reading materials that resonate with personal interests may prompt students to quit reading. Educators need to supply reading materials that represent students' cultural backgrounds as well as academic goals and personal interests. Students become more engaged when they choose their reading materials and access digital resources that represent their cultural heritage. Teachers can create more meaningful student text engagement by combining interactive discussions with project-based learning tasks that involve collaborative reading activities.

Research indicates that English language teaching requires integrated instructional methods that link cognitive processes with linguistic skills and emotional factors which curriculum developers and policymakers should prioritize. Therefore, reading instruction needs to extend beyond decoding skills and comprehension exercises to deliver structured support that builds student motivation and self-efficacy. Educational curricula need to incorporate differentiated instruction methods which allow teachers to customize teaching strategies according to each student's proficiency level and learning preferences.

Professional learning communities that provide educators with research-based instructional methods and EFL resources enable them to create engaging learning environments which support students to achieve success. This study recommends that reading instruction should implement a multidimensional approach that merges linguistic elements with affective and cognitive learning strategies. The integration of research findings into teaching practices and educational frameworks may allow educators and policymakers to strengthen literacy instruction for EFL students resulting in better reading development and proficiency.

6.6 Concluding Remarks

This study sought to investigate how reading strategies, vocabulary size, and self-efficacy would influence reading comprehension among secondary school EFL

learners. It adopted a mixed-method approach that combined the quantitative analysis of the relationship between reading strategies, vocabulary size, self-efficacy, and reading comprehension with the qualitative insights obtained from the Iraqi EFL learners using focus-group discussions. In general, the results of the study demonstrated that the participants had a high level of difficulty in reading comprehension, and they frequently used problem-solving reading strategies. There was also a significant positive effect of vocabulary size, self-efficacy, and problem-solving reading strategies on reading performance. In other words, an increase in vocabulary size, self-efficacy, and problem-solving strategies increased the reading performance of EFL learners. The regression results further revealed that self-efficacy has a mediating role between reading strategies and reading comprehension. However, there was no mediating role between vocabulary size and reading comprehension.

The qualitative results complemented the quantitative ones and revealed the contextual causes of the learners' difficulties in reading development. The learners mentioned their vocabulary limitations, low motivation, language exposure, lack of instructional support, and ineffective teaching strategy as the sources of their problems with reading development. In addition, the focus group conversations identified some of the remedial strategies that learners could use to develop their vocabulary and reading comprehension. The strategies they thought were helpful include providing practice, offering vocabulary-building activities, making learners read engaging texts, and adopting a more interactive, supportive approach to classroom teaching. The study, thus, not only described the learners' difficulties in reading development but also captured their perceptions of the ways to address the problems.

The study made a contribution to the existing literature in drawing on the relationship between the linguistic and affective dimensions of reading in order to investigate the underlying process of reading comprehension among Iraqi EFL learners. The findings helped to inform the theoretical understanding of the reading comprehension process, and called for teaching EFL as a whole, making reference to both linguistic and affective dimensions.

Practically, the results of the study have several pedagogical implications. First, they suggest that the instruction should be aimed at not only building the learners' vocabulary and providing them with strategies for effective reading but also at developing their self-efficacy. Second, the study found that the learners were aware of the remedial strategies that they can use to address their problems with vocabulary and

reading comprehension. This means that the teaching should take into account their suggestions and include them in the language curriculum design and teacher training.

In sum, the present study made a contribution to the existing knowledge on the EFL reading process among Iraqi secondary school learners by identifying the relationships between linguistic, strategic, and affective factors, and by integrating quantitative and qualitative data to complement and extend these relationships. Therefore, future research may focus on examining interventions related to strategy instruction among different groups of learners.

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APPENDICES

APPENDIX 1

Learner Information and Self-Assessment Form

1. Name (optional): _____
2. Age: _____
3. Grade:

   ☐ Fourth

   ☐ Fifth

   ☐ Sixth
4. Gender:

   ☐ Male

   ☐ Female
5. Compared to your classmates, how would you describe your overall proficiency in English?

   ☐ Excellent

   ☐ Very good

   ☐ Above average

   ☐ Average

   ☐ Below average

APPENDIX 2

Survey of Reading Strategies

Mokhtari and Sheorey (2002)

Dear students,

The purpose of this study is to collect information about the various strategies you use when you read school-related academic materials in English. This questionnaire has 30 statements that you need to read and say how strongly you agree with them. Circle the number that best describes you.

- **(1)** means that "**I never or almost never do this**."
- **(2)** means that "**I do this only occasionally**."
- **(3)** means that "**I sometimes do this**." **(about 50% of the time)**
- **(4)** means that "**I usually do this**."
- **(5)** means that "**I always or almost always do this**."

Reading Strategy	Never				Always
1. I have a purpose in mind when I read	1	2	3	4	5
2. I take notes while reading to help me understand what I read.	1	2	3	4	5
3. I think about what I know to help me understand what I read.	1	2	3	4	5
4. I take an overall view of the text to see what it is about before reading it.	1	2	3	4	5
5. When the text becomes difficult, I read aloud to help me understand what I read.	1	2	3	4	5
6. I think about whether the content of the text fits my reading purpose.	1	2	3	4	5
7. I read slowly and carefully to make my user I understand what I am reading.	1	2	3	4	5
8. I review the text first by noting its characteristic and organization.	1	2	3	4	5
9. I try to get back on track when I lose concentration.	1	2	3	4	5
10. I underline or circle information in the text to help me understand.	1	2	3	4	5

11. I adjust my reading speed according to what I am reading	1	2	3	4	5
12. When reading, I decide what to read closely and what to ignore.	1	2	3	4	5
13. I use reference materials (e.g., a dictionary) to help me understand what I read.	1	2	3	4	5
14. When the text becomes difficult, I pay close attention to what I am reading.	1	2	3	4	5
15. I use tables, figures, and pictures in text to increase mu understanding.	1	2	3	4	5
16. I stop from time to time and think about what I am reading.	1	2	3	4	5
17. I use context clues to help me better understand what I am reading.	1	2	3	4	5
18. I paraphrase (restate in my own words) to better understand what I read.	1	2	3	4	5
19. I try to picture or visualize information to help me remember what I read.	1	2	3	4	5
20. I use typographical features like boldface and italics to identify key information.	1	2	3	4	5
21. I critically analyze and evaluate the information presented in the text.	1	2	3	4	5
22. I go back and forth in the text to find relationships among ideas in it.	1	2	3	4	5
23. I check my information when I come across new information.	1	2	3	4	5
24. I try to guess what the context of the text is about when I read.	1	2	3	4	5
25. When the text becomes difficult, I re- read it to increase my understanding.	1	2	3	4	5
26. I ask myself questions I like to have answered in the text.	1	2	3	4	5
27. I check to see if my guesses about the texts are right or wrong.	1	2	3	4	5
28. When I read, I guess the meaning of unknown words or phrases.	1	2	3	4	5
29. When reading, I translate from English into my native language.	1	2	3	4	5
30. When reading, I think about information in both English and my mother tongue.	1	2	3	4	5

APPENDIX 3

Vocabulary Size Test

Circle the letter a-d with the closest meaning to the key word in the question:

- **First 1000**

1. SEE: They **saw** it.
   A. Cut.
   B. Waited for.
   C. Looked at.
   D. Started.

2. TIME: They have a lot of **time**.
   A. Money.
   B. Food.
   C. Hours.
   D. Friends

3. PERIOD: It was a difficult **period**.
   A. Question
   B. Time
   C. Thing to do
   D. Book

4. FIGURE: Is this the right **figure**?
   A. Answer.
   B. Place.
   C. Time.
   D. Number.

5. POOR: We are **poor**.
   A. Have no money
   B. Feel happy
   C. Are very interested
   D. Do not like to work hard

6. DRIVE: He **drives** fast.
   A. Swims
   B. Learns.
   C. Throws balls
   D. Uses car

7. JUMP: She tried to **jump**.
   A. Lie on top of the water

B. Get off the ground suddenly
C. Stop the car at the edge of the road
D. Move very fast.

8. SHOE: Where is your **shoe**?
   A. The person who looks after you
   B. The thing you keep your money in
   C. The thing you use for writing
   D. The thing you wear on your foot

9. STANDARD: Her **standards** are very high.
   A. The bits at the back under her shoes
   B. The marks she gets in school
   C. The mony she asks for
   D. The levels she reaches in everything

10. BASIS: Thiswas used as the **basis**.
    A. Answer
    B. Place to take a rest
    C. Next step
    D. Main part.

- **Second 1000**

1. MAITAIN: Can they **maintain** it?
   A. Keep it as it is
   B. Make it larger
   C. Get a better one than it
   D. Get it

2. STONE: He sat on a **stone**.
   A. Hard thing
   B. Kind of chair
   C. Soft thing on the floor
   D. Part of a tree

3. UPSET: I am **upset**.
   A. Tired
   B. Famous
   C. Rich
   D. Unhappy

4. DRAWER: The **drawer** was empty.
   A. Sliding box
   B. Place where cars are kept
   C. Cupboard to keep things cold
   D. Animal house

5. PATIENCE: He has no **patience**.
    A. Will not wait happily
    B. Has no free time
    C. Has no faith
    D. Does not know what is fair

6. NIL: His mark for that question was **nil.**
    A. Very bad
    B. Nothing
    C. Very good
    D. In the middle

7. PUB: They went to the **pub**.
    A. Place where people drink and talk
    B. Place that looks after money
    C. Large building with many shops
    D. Building for swimming

8. CIRCLE: Make a **circle**.
    A. Rough picture
    B. Space with nothing in it
    C. Round shape
    D. Large hole

9. MICROPHONE: Please use the **microphone**.
    A. Machaine for making food hot
    B. Machaine thast makes sounds louder
    C. Machaine that makes things look bigger
    D. Small telephone that can be carried around

10. PRO: He's a **pro**.
    A. Someone who is employed to find out important secerets
    B. A stupid person
    C. Someone who writes for a newspaper
    D. Someone who is paid for playing spot etc.

- **Third 1000**

1. SOLDIER: He is a **soldier**.
    A. Person in business
    B. Student
    C. Person who uses metal
    D. Person in army

2. RESTORE: It has been **restored**.
    A. Said again
    B. Given to a different person
    C. Given a lower price
    D. Made like new again

3. JUG: He was holiding a jug.
    A. A container for pourung liquids
    B. An informal discussion
    C. A soft cap
    D. A weapon that explodes

4. SCRUB: He is scrubbing it.
    A. Cutting shallow lines into it
    B. Repairing it
    C. Rubbing it hard to clean it
    D. Drawing simple pictures of it

5. DINOSAUR: The children were pretending to be **dinosurs**.
    A. Robbers who work at sea
    B. Very small creatures with human form but with wings
    C. Large creatures with wings that breathe fire
    D. Animals that lived a long time ago

6. STARP: He broke the **starp**.
    A. Promise
    B. Top cover
    C. Shallow dish for food
    D. Strip of material for holding things togather

7. PAVE: It was **paved**.
    A. Prevented from going through
    B. Divided
    C. Given gold edges
    D. Covered with a hard surface

8. DASH: They **dashed** over it.
    A. Moved quickly
    B. Moved slowly
    C. Fought
    D. Looked quickly

9. ROVE: He could not stop **roving**.
    A. Getting drunk
    B. Travelling around
    C. Making a musical sound through
    D. Working hard

10. LONESOME: He felt **lonesome**.
    A. Ungrateful
    B. Very tired
    C. Lonely
    D. Full of energy

- **Fourth 1000**

1. COMPOUND: They made a new **compound**.
    A. Agreement
    B. Thing made of two or more parts
    C. Group of people forming a business
    D. Guess based on past experience

2. LATTER: I agree with the **latter**.
    A. Man from the church
    B. Reason given
    C. Last one
    D. Answer

3. CANDID: Please be **candid**.
    A. Be careful
    B. Show sympathy
    C. Show fairness to both sides
    D. Say what you relly think

4. TUMMY: Look at my **tummy**.
    A. Cloth to cover head
    B. Stomach
    C. Small furry animal
    D. Thumb

5. QUIZ: We made a **quiz.**
    A. Thing to hold arrows
    B. Serious mistake
    C. Set of questions
    D. Box for birds to make nests in

6. INPUT: We need more **input**.
    A. Information, power,etc. put into something
    B. Workers
    C. Artifacial filling for a hole in wood
    D. Money

7. CRAB: Do you like **crabs**?
    A. Sea creatures that walk sideways
    B. Very thin small cakes
    C. Tight, hard collars
    D. Large black insects that sing at night

8. VOCABULARY: You will need more **vocabulary**.
    A. Words
    B. Skill
    C. Money
    D. Guns

9. REMEDY: We found a good **remedy**.
    A. Way to fix a problem
    B. Place to eat in public
    C. Way tp prepare food
    D. Rule about numbers

10. ALLEGE: They **alleged** it.
    A. Claimed it without proof
    B. Stole the ideas for it from someone else
    C. Provided facts to prove it
    D. Argued against the facts that supported it.

APPENDIX 4

The Reader Self-Perception Scale

HENK AND MELNICK (1995)

The purpose of the following questionnaire is to elicit your level of ability to read an English text in your course book material. Read each statement carefully, then please circle ONE of the options given opposite to each statement that you think more appropriate to you. The meanings of the numbers are as follows:

(1) Strongly disagree
(2) Disagree
(3) Not sure
(4) Agree
(5) Strongly agree

#	Item	Level of Agreement				
		SD	DA	Not Sure	A	SA
1	I think I am a good reader.					
2	I can tell that my teacher likes to listen to me read.					
3	My teacher thinks that my reading is fine.					
4	I read faster than other students.					
5	I like to read aloud.					
6	When I read, I can figure out words better than other students.					
7	My classmates like to listen to me read.					
8	I feel good inside when I read.					
9	My classmates think that I read pretty well.					
10	When I read, I don't have to try as hard as I used to.					
11	I seem to know more words than other students when I read.					
12	People in my family think I am a good reader.					
13	I am getting better at reading.					
14	I understand what I read as well as other students do.					
15	When I read, I need less help than I used to.					
16	Reading makes me feel happy inside.					
17	My teacher thinks I am a good reader.					
18	Reading is easier for me than it used to be.					

19	I read faster than I could before.					
20	I read better than other students in my class.					
21	I feel calm when I read.					
22	I read more than other students.					
23	I understand what I read better than I could before.					
24	I can figure out words better than I could before.					
25	I feel comfortable when I read.					
26	I think reading is relaxing.					
27	I read better now than I could before.					
28	When I read. I recognize more words than I used to.					
29	Reading makes me feel good.					
30	Other students think I'm a good reader.					
31	People in my family think I read pretty well.					
32	I enjoy reading.					
33	People in my family like to listen to me read.					

APPENDIX 5

Reading Comprehension Test (RCT)

Cambridge Assessment English

Preliminary English Test

Reading

INSTRUCTIONS TO CANDIDATES

Do not open this question paper until you are told to do so.

Write your **name** on your answer sheet.

Read the instructions for each part of the paper carefully.

Answer all the questions.

Write your answers on the answer sheet. Use a pencil.

You **must** complete the answer sheet within the time limit.

At the end of the test, hand in both this question paper and your answer sheet.

INFORMATION FOR CANDIDATES

Questions **1-10** carry one mark.

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Part 1

Questions 1 – 5

For each question, choose the correct answer.

1



A The competition is open to people over a certain age.

B There is a maximum age limit for this competition.

C Only eighteen-year-olds are allowed to enter this competition.

2



Adam is telling Rachel to

A post something for him.

B find out how to do something.

C give him something he needs.

3



A Members of staff must be accompanied if they wish to pass this point.

B Members of the public can't go through unless they are visiting someone working here.

C Members of the public may go further if a company employee goes with them.

4

Jane,
Mum's leaving really early tomorrow, so could you wake me at 7 when you leave for work? I mustn't be late for college again!
Tom

A Tom wants to persuade Jane to take him to college tomorrow morning.

B Tom would like Jane to do him a favour tomorrow morning.

C Tom is reminding Jane they have to get up early tomorrow morning.

5

FREE COPIES OF ADVERTISEMENTS ON THIS BOARD ARE AVAILABLE FROM THE CAREERS CENTRE

A The Careers Centre will give you a copy of any advertisement on this board.

B This board is used to advertise the work done by the Careers Centre.

C If you ask the Careers Centre, you can advertise for free on this board.

Part 2

Questions 6 – 10

For each question, choose the correct answer.

Artist Peter Fuller talks about his hobby

There's a popular idea that artists are not supposed to be into sport, but mountain biking is a huge part of my life. It gets me out of my studio, and into the countryside. But more importantly, racing along as fast as you can leaves you no time to worry about anything that's going on in your life. You're too busy concentrating on not crashing. The only things you pay attention to are the pain in your legs and the rocks on the path in front of you.

I'm in my sixties now, but I started cycling when I was a kid. In the summer my friends and I would ride our bikes into the woods and see who was brave enough to go down steep hills, or do big jumps. The bikes we had then weren't built for that, and often broke, so I used to draw pictures of bikes with big thick tyres that would be strong enough for what we were doing. They looked just like modern mountain bikes. However, it wasn't until many years later that someone actually invented one. By the 1980s, they were everywhere.

At that time I was into skateboarding. I did that for a decade until falling off on to hard surfaces started to hurt too much. Mountain biking seemed a fairly safe way to keep fit, so I took that up instead. I made a lot of friends, and got involved in racing, which gave me a reason to train hard. I wanted to find out just how fit and fast I could get, which turned out to be fairly quick. I even won a couple of local races.

In the end I stopped racing, mainly because I knew what it could mean to my career if I had a bad crash. But I still like to do a three-hour mountain bike ride every week. And if I'm out cycling in the hills and see a rider ahead, I have to beat them to the top. As I go past I imagine how surprised they would be if they knew how old I am.

6 Peter enjoys mountain biking because

A it gives him the opportunity to enjoy the views.
B he can use the time to plan his work.
C he is able to stop thinking about his problems.
D it helps him to concentrate better.

7 What does Peter say about cycling during his childhood?

A He is sorry he didn't take more care of his bike.
B His friends always had better quality bikes than he did.
C His bike wasn't suitable for the activities he was doing.
D He was more interested in designing bikes than riding them.

8 Peter says he returned to cycling after several years

A because he had become unfit.
B so that he could enter races.
C in order to meet new people.
D to replace an activity he had given up.

9 How does Peter feel about cycling now?

A He is proud that he is still so fast.
B He is keen to do less now that he is older.
C He regrets the fact that he can no longer compete.
D He wishes more people were involved in the sport.

10 What would be a good introduction to this article?

A
For Peter Fuller, nothing matters more than mountain biking, not even his career. Here, in his own words, he tells us why.

B
Artist Peter Fuller takes mountain biking pretty seriously. Here he describes how it all began and what he gets out of it.

C
In this article, Peter Fuller explains how he became an artist only as a result of his interest in mountain biking.

D
After discovering mountain biking late in life, Peter Fuller gave up art for a while to concentrate on getting as good as possible.

APPENDIX 6

Focus Group Discussion Questions

Focus group discussion questions about the challenges encountered by Iraqi secondary school learners in reading comprehension

A. Interviewee background Information

- Name_____
- Gender_____
- Grade_____
- School_____

1) Do you think that you have a low vocabulary size? If yes/no, why?
2) How can one overcome the challenges of acquiring new vocabulary? Can you give examples?
3) Do you have difficulties in reading comprehension? If yes/no, why
4) What do you do to overcome challenges in reading comprehension? Can you give examples?
5) Have you been taught on how to use reading comprehension strategies? If yes, how? If no, why?
6) Do you have any general suggestions?

APPENDIX 7

Ethics Approval Letter

www.uitm.edu.my

UNIVERSITI TEKNOLOGI MARA

Pejabat
Timbalan Naib Canselor
(Penyelidikan dan Inovasi)

Reference : 600-TNCPI (5/1/6)
Our reference : REC/08/2023 (PG/MR/278)
Date : 1 August 2023

Dr Nur Huslinda Che Mat
(Al Abbaichy Leena Saad Faaik – 2021633268)
Akademi Pengajian Bahasa
Universiti Teknologi MARA
40450 Shah Alam
SELANGOR

Dear Dr Nur Huslinda,

APPROVAL LETTER - UITM RESEARCH ETHICS COMMITTEE

Thank you for submitting your research proposal to the Research Ethics Committee (REC). After considering your application, the Committee approved your proposal titled "Roles of Reading Strategies, Vocabulary Size, and Self-Efficacy in Reading Comprehension Performance among EFL Learners in Iraq Secondary Schools" in Iraq.

Details of the approval are as follows:

Ref. number:	REC/08/2023 (PG/MR/278)
Approval Period:	1 August 2023 until 31 July 2024
Authorised personnel:	1. Dr Nur Huslinda Che Mat 2. Al Abbaichy Leena Saad Faaik

The UITM Research Ethics Committee operates in accordance to the ICH Good Clinical Practice Guidelines, Malaysian Good Clinical Practice Guidelines and the Declaration of Helsinki. The approval of this project is conditional upon your continuing compliance with these guidelines and declaration.

We draw to your attention the requirement that a report on this research, must be submitted every 12 months from the date of the approval or on the completion of the project, whichever occurs first. Failure to submit reports will result in withdrawal of consent for the project to proceed. Amendments, if any, to the study documents are to be submitted to the REC for approval.

If you require further information, please contact the REC Secretariat at 03-55448069/03-55442794 or email at recsecretariat@uitm.edu.my.

Yours sincerely,

EMERITUS PROFESSOR DATO' DR RAYMOND AZMAN ALI
Chairman
UiTM Research Ethics Committee

c.c.: Dean, Akademi Pengajian Bahasa, UiTM

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APPENDIX 8

Focus Group Discussion Transcription Record

Assalamualaikum, I'd like to present myself, I'm Leena. I'm PhD student in a Malaysian university. I have already given you the survey about reading learning strategies and the ability to understand texts. Moreover, it is about the challenges you face while reading. Now, I'm going to make a group discussion ad I will ask you questions. Please mention your name first when you want to answer. The discussion will be in Arabic language because it is easier for you to represent yourself and your opinions.

Q1) Do you think that you have a low vocabulary size? If yes/no, why?

Respondent C: I have a lot of vocabs because I watch movies without translation, songs and stories. [Sometimes I pause a movie to note down a new word or phrase and later search for its meaning. This habit helps me collect new vocabulary naturally.]

Respondent D: it is low because I don't have the passion in learning English language. I think if learning activities were more engaging, like using games or real-life topics, I might become more interested and remember new words better.

Respondent A: it is high because of studying English language and learning some academic terms.

Respondent F: it is good because I watch different series and listen to songs. I sometimes write down new words I hear in songs and use them in short sentences later to practice.

Respondent E: it is low because I didn't pay attention to the teacher while he is explaining the meaning of new words, and I don't listen to English language programs. I used to think listening wasn't important, but I noticed that those who listen more to English shows have better vocabulary and understanding.

Respondent B: it is high because I watch English language programs. When I don't understand a new word, I write it down and check its meaning after watching. This helps me recall it easily later.

Q2) How can one overcome the challenges of acquiring new vocabulary? Can you give examples?

Respondent F: I translate new words on google.

Respondent A: I translate new words on google and dictionaries. [I try to use these words when chatting with friends online, so I can remember them better.]

Respondent D: I watch educational clips for pronunciation purpose. Sometimes I repeat after the speaker to improve both pronunciation and retention of the word.

Respondent B: I always study English language and try to use it every day. Using English daily, even for simple things like texting or watching short clips, keeps me motivated to learn more vocabulary.

Respondent E: I watch English movies to learn and listen to new words. When I don't understand something, I turn on subtitles for a while and compare how the words are used, which improves my understanding.

Respondent C: I join different groups on YouTube and facebook to listen to the new terms and their meanings. Then, I memorise a new word each day and learn it.

Q3) Do you have difficulties in reading comprehension? If yes/no, why

Respondent F: it is easy with no difficulty. [I think watching a lot of English videos helps because I already know the meaning of many words before I see them in texts.]

Respondent A: Yes, there are challenges, I face difficulties in understanding the academic terms which in turn take time in translating and understanding.

Respondent B: I have sometimes difficulty when I face new words but then I understand their meanings according to the context. [Understanding the context really helps, but it still slows down my reading speed when there are too many unfamiliar words.]

Respondent E: I have challenges in reading due to the lack of listening to English language and I'm trying to enhance my skills now. Reading is not part of my daily routine, so I only improve when I force myself to read academic materials.

Respondent D: Our schedule only has five English classes a week, and they mostly focus on grammar instead of other language skills. How can I become really good at reading without getting more practice?

Respondent C: At first I face challenges but I resort to the dictionaries to translate the new words. Over time, I've learned to use context more and rely less on the dictionary.

Q4) What do you do to overcome challenges in reading comprehension? Can you give examples?

Respondent F: I try to guess the meaning from the context and the cohesiveness of the sentences. I sometimes reread difficult paragraphs aloud; hearing the words helps me focus and understand better.

Respondent B: I try to understand the general meaning of the text and the context. I also underline key words or phrases that seem important so I can review them later.

Respondent D: I'll use dictionaries or google Translate.

Interviewer: What if you can't use the dictionary?

Respondent D: from the context I'll understand. But sometimes, if the context is too difficult, I skip that word and continue reading to get the general meaning first.

Respondent C: I use google translator. If I can't use it, I try to guess the meaning from the context. [Later, I revisit those words and check their meanings properly.]

Respondent E: I try to divide the text into multiple subtexts to simplify the text and understand the meaning. [Dividing the text into sections makes long readings less overwhelming.]

Respondent A: I use google translator, talk to people, and I understand from the context.

Interviewer: Strategies during exam

Respondent C: I try to guess the meaning from the context.

Respondent B: I connect the question to the following question and to the text generally.

Respondent D: from the context I'll understand.

Respondent F: I read the next sentence and try to guess the meaning from the context.

Respondent A: I try to simplify it, then, I guess the meaning from the context and the related questions to the text.

Respondent E: I try to understand the vocabs to answer the questions.

Q5) Have you been taught on how to use reading comprehension strategies? If yes, how? If no, why?

Respondent C: I translate the text word by word in Arabic to understand it. [Teachers rarely explain different strategies, so I had to find my own way to understand texts.]

Respondent F: I try to understand the whole text.

Respondent B: I try to read the text as story or article and I connect between them.

Respondent D: I try to understand the essence of the text from the context, then, I'll check new words in a dictionary or google translator.

Respondent A: I translate the text word by word. First, it will be difficult but it will be easy after getting use to this method.

Respondent E: I translate some words and connect the ideas in the text. Sometimes we ask for clarification on reading techniques, but the teacher just tells us to read more on our own.

Q6) Do you have any general suggestions?

Respondent C: English language instructors are sometimes fast and don't translate the new words into Arabic even when we seek for the information it is not accepted by them. [If instructors could slow down and provide short vocabulary lists after each lesson, it would make learning much easier.]

Respondent F: English language instructors speak in academic or advanced words without explanation of the meaning. As a result, we invest time to understand the meaning of these new words. I think they should explain using examples or simpler words, so we can follow along better.

Respondent B: words pronunciation of the English language instructors is usually wrong. Correct pronunciation practice should be part of class time, not just reading texts.

Respondent F: lessons shouldn't be given so fast. When the teacher explains quickly, I feel like I cannot follow the ideas or remember the new vocabulary.

Respondent E: the way of text explanation should be simple and clear to the student. When the explanation is not clear, I lose focus and feel less interested in continuing the lesson.

Respondent D: the focus is on grammar should be given more attention.If reading, vocabulary, and speaking were taught equally, students would gain more confidence in using the language.

AUTHOR'S PROFILE



Dr. Leena Saad Faiq Alabbaichy obtained a Bachelor's degree in English Language from the College of Basic Education at Al-Mustansiriya University during the academic year 2006–2007, and a Master's degree in Methods of Teaching English from the same university in 2010. Her doctoral study investigated the impact of reading strategies, self-efficacy, and vocabulary size on reading comprehension among Iraqi secondary school EFL learners. The study highlighted the significant role of these factors in improving reading comprehension performance and identified key challenges faced by learners, including limited vocabulary, inadequate language practice, and ineffective teaching approaches.

LIST OF PUBLICATIONS

Alabbaichy, L. S. F., Mat, N. H. C., & Ramli, N. F. M. (2024). Investigating the Relationship between Self-Efficacy and Reading Comprehension among Iraqi Secondary School EFL Learners. *International Journal of Research and Innovation in Social Science, 8*(3s), 5253-5267.

Alabbaichy, L. S. F., Mat, N. H. C., & Ramli, N. F. M. (2025). Reading Strategies, Vocabulary Size and Reading Comprehension of Iraqi Secondary School EFL Learners. *Gading Journal for Social Sciences (e-ISSN 2600-7568), 28*(1), 70-85.