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ISTANBUL AYDIN UNIVERSITY

INSTITUTE OF GRADUATE STUDIES

INVESTIGATING THE EFFECTS OF METACOGNITIVE READING STRATEGIES INSTRUCTION INTEGRATED WITH E-STORYBOOKS ON EFL PRIMARY STUDENTS' READING COMPREHENSION

MASTER'S THESIS

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Department of Foreign Languages Education

English Language Education Program

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Thesis Advisor: Prof. Dr. Veysel KILIÇ

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APPROVAL PAGE

DECLARATION

I hereby solemnly declare that the master's thesis titled: "Investigating the Effects of Metacognitive Reading Strategies Instruction Integrated with E-Storybooks on EFL Primary Students' Reading Comprehension" has been solely and independently authored by me, in accordance with the principles and guidelines of scientific ethics and traditions. Throughout the entire process, from the initial project phase to the completion of the thesis, I have adhered to these principles and received no external assistance. (05/07/2023)

Nashia Najib Ghaleb ABDULLAH

FOREWORD

I would like to take this opportunity to express my deepest gratitude and appreciation to the individuals who have provided unwavering support, motivation, and encouragement throughout my academic journey. First and foremost, in loving memory of my dear mother, I am forever grateful for your unwavering love and guidance. I am also immensely grateful to my father for his endless love, encouragement, and belief in my abilities.

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August, 2023   Nashia Najib Ghaleb ABDULLAH

IVESTIGATING THE EFFECTS OF METACOGNITIVE READING STRATEGIES INSTRUCTION INTEGRATED WITH E-STORYBOOKS ON EFL PRIMARY STUDENTS' READING COMPREHENSION

ABSTRACT

This study explores the impact of teaching Metacognitive Reading Strategies (MRS) via e-storybooks (ESB) on the comprehension of primary EFL young learners. Participants (n=36) were divided into experimental and control groups. The experimental group received MRS training using ESB, while the control group did not. Comprehension tests followed each e-story, with both groups completing pre- and post-Metacognitive Reading Strategy questionnaires (MRSQ). The experimental group also filled an attitude questionnaire about MRS instruction via ESB.

Results show no statistically significant difference in comprehension between groups, although, there was a progressive increase in U values suggests a gradual improvement in the participants' reading comprehension. In addition, the experimental group exhibited notable improvement in MRS usage compared to the control group. Participant acceptance of MRS instruction through e-books displayed no substantial difference. Qualitative data from responses provide insights into MRS instruction's effectiveness through ESB in English language learning, contributing to understanding ESB's potential as instructional tools for MRS. Despite limited quantitative gains, further research is encouraged to explore preferences, enhance practices, and maximize MRS instruction benefits via ESB in language learning.

Keywords: (MRS) Metacognitive Reading Strategies, Comprehension, (ESB) E-storybooks, (EFL) English as Foreign Language.

EFL İLKÖĞRETİM ÖĞRENCİLERİNİN OKUMA ANLAMA BECERİLERİNE E-KİTAPLARLA BÜTÜNLEŞİK METAKOGNİTİF OKUMA STRATEJİLERİ EĞİTİMİNİN ETKİLERİNİN İNCELENMESİ

ÖZET

Bu çalışma, İngilizceyi yabancı dil olarak öğrenen ilkokul çağındaki öğrencilerin okuduğunu anlama becerileri üzerinde, Metakognitif Okuma Stratejileri (MRS) öğretiminin E-hikâye kitapları (EHK) aracılığıyla etkilerini araştırmaktadır. 36 katılımcının yer aldığı bu çalışmada, katılımcılar deneysel ve kontrol grupları olmak üzere ikiye ayrılmıştır. Deneysel gruba ESB kullanarak okuma stratejisi eğitimi verilirken, kontrol grubuna herhangi bir MRS eğitimi verilmemiştir. Her bir E-hikâye sonrasında anlama testleri uygulanmış ve her iki grup da MRS kullanımını değerlendirmek amacıyla Metakognitif Okuma Stratejisi Anketi (MRSA) doldurmuştur. Ayrıca, deneysel grup, EHK aracılığıyla MRS öğretimine yönelik tutumları ölçen bir anketi tamamlamıştır. Elde edilen sonuçlar, deneysel ve kontrol grupları arasında anlama becerisinde istatistiksel olarak anlamlı bir fark olmadığını göstermektedir. Bununla birlikte, deneysel grup, MRS kullanımı puanlarında kontrol grubuna göre anlamlı bir iyileşme sergilemiştir. Katılımcıların, e-kitaplar aracılığıyla sunulan MRS öğretimini kabul etmelerinde ise anlamlı bir farklılık gözlenmemiştir. Katılımcıların yanıtlarından elde edilen nitel veriler, MRS öğretiminin EHK kullanımıyla İngilizce dil öğrenimindeki etkinliği ve olası sonuçlarını anlamamıza önemli bir katkı sağlamaktadır. Bu bulgular, genç İngilizce öğrenenler için EHK'nin MRS öğretiminde kullanılmasının potansiyel faydalarını daha iyi anlamamıza yardımcı olmaktadır. İstatistiksel olarak anlamlı bir gelişme gözlenmese de ileri araştırmalar bireysel tercihleri keşfetmeye, öğretim uygulamalarını optimize etmeye ve MRS öğretimini EHK aracılığıyla dil öğreniminde maksimum faydaya ulaşmaya yönelik olarak teşvik edilmektedir.

Anahtar Kelimeler: Metakognitif Okuma Stratejileri (MRS), Anlama, E-hikâye kitapları (EHK), İngilizce yabancı dil olarak öğrenme (İYDOÖ).

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LIST OF ABBREVIATIONS

EFL : English as a Foreign Language

ESB : E-Story Books

L1 : First Language

L2 : Second/ Language

MRS : Metacognitive Reading Strategies

MRSQ : Metacognitive Reading Strategies Questionnaire

RS : Reading Strategy

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I.   INTRODUCTION

Reading comprehension can be challenging, especially when learners encounter texts that are unclear, unfamiliar, or complex (McNamara, 2006). For young readers, developing proficient reading skills during primary school becomes a critical academic objective, serving as a foundational skill for lifelong learning and overall success (Strommen & Mates, 2004). As a result, educators and teachers have directed their efforts towards supporting learners in enhancing their reading strategies and comprehension abilities (Broek et al., 2011). Moreover, various reading strategies have been employed, to overcome persistent comprehension difficulties. In addition, new technologies, such as instructional electronic materials and tools, have been integrated into the learning process. Within this context, the present study investigates the effects of metacognitive reading strategies (MRS herein) instruction delivered through e-storybooks (ESB herein) on young learners' reading comprehension and exploring their attitudes towards this instructional approach.

In the realm of facilitating reading comprehension, teachers and instructors must consider MRS awareness and utilization (Mokharti & Reichard, 2002). EFL learners encounter considerable difficulties in effectively employing MRS and achieving a deep understanding of textual material. Ali and Razali (2019) conducted an extensive literature review. They focused on teaching reading strategies for ESL/EFL students and emphasized cognitive and metacognitive strategies. The review highlighted the importance of continuous teaching method improvements. It particularly emphasized Reading Strategies (RS) incorporation. However, AD-Heisat et al. (2009) have observed that educators tend to prioritize certain RS, such as establishing the purpose of reading, deciphering word meanings, and completing comprehension exercises. Simultaneously, they tend to overlook the potential benefits of other equally effective strategies, such as setting context, connecting the text to students' existing knowledge, and predicting or interpreting textual content. This discrepancy in the selection and emphasis on RS in the pedagogical approach

calls for a more balanced and comprehensive strategy to foster improved reading comprehension among ESL/EFL learners. In addition, educators need to teach MRS integrated with various materials and tools in different contexts.

The advancements in digitalization and literacy have significantly influenced the landscape of reading comprehension. Contemporary literature underscores the insufficiency of traditional books alone, as learners and educators embrace various types of technology. As a result, ESBs have emerged as valuable tools in early school years for promoting literacy learning within classroom settings (Ertem, 2010). E-books offer additional features beyond traditional text and pictures, enhancing students' learning experiences. By incorporating vocabulary dramatization and story content, e-books facilitate the internalization of story meanings and vocabulary (De Jong & Bus, 2002; Reinking, 1994). In addition, ESBs integrate diverse multimedia components, including text, graphics, sound effects, animations, music, and games effectively engaging children and enriching the narrative (Lancy & Hayes, 1988; Ertem, 2010; Fu et al., 2014) and positively affect the learners' attitudes towards reading.

Attitudes towards reading encompass an individual's perception and disposition towards reading, ultimately influencing their inclination to engage in the reading process (Divy & Haneefa, 2020). Numerous studies have explored students' attitudes towards digital reading, revealing positive perceptions regarding e-books' convenient features, ease of searching and skimming, constant accessibility, availability to multiple users, downloading capabilities, and the utilization of margin notes and highlighting (Richardson & Mahmood, 2012). Furthermore, the features inherent in ESB, such as music, animations, and multimedia components effectively enhance the narrative structure, capturing the attention of young learners and motivating them to read more and improve their comprehension skills (Ertem, 2010; Fu et al., 2014; Prasetya, & Hirashima,2018). Heidemann (2012) concludes that the effective utilization of ESB can positively impact learners' reading performance, provided that the ESB caters to the students' specific needs.

In spite of the fact that previous studies have examined the effects of ESB and MRS on EFL learners' comprehension separately or compared the impact of digital and traditional books on reading and understanding for EFL students, only limited research has been specifically explored the utilization of ESB as digital teaching

tools for reading strategy instruction among young EFL learners (Fu et al., 2014). Additionally, previous intervention studies have primarily focused on the effects of instructing a single comprehension strategy. Hence, the current study aims to investigate the effects of teaching five MRS through ESB on young learners' comprehension, thereby contributing to the existing literature in this field and addressing the research gap in this area of inquiry.

A. The Statement of the Problem and Purpose

The primary objective of decoding a text is to comprehend its message (Dotty, 1999). Comprehension plays a pivotal role in the development of learners' reading proficiency and their ability to acquire knowledge (National Reading Panel [NRP], 2000). Therefore, in the digital era, where technological advancements have permeated every aspect of human life, teachers have recognized the potential benefits of utilizing technology to enhance learners' comprehension skills. One such technological tool is digital children's storybooks, which serve as a model for teachers to integrate technology into their reading programs (de Jong & Bus, 2002; Labbo & Kuhn, 2000). Consequently, researchers have conducted studies to investigate the role of technology has in improving reading comprehension. However, earlier research primarily focused on comparing the presentation formats of digital storybooks with traditional storybooks, overlooking the specific effects of using electronic books as a digital teaching medium for MRS instruction among young EFL learners (Fu et al., 2014).

Therefore, the purpose of this study emerged from the researcher's interest in addressing the challenges encountered in EFL reading comprehension instruction by implementing e-books with MRS in private Yemeni primary schools in Istanbul. The study aims to provide suggestions to effectively tackle these challenges and contribute to the existing knowledge in the field. By investigating the specific effects of utilizing electronic books as a digital teaching medium for MRS instruction, this research intends to shed light on this instructional approach's potential benefits and implications. The findings of this study will provide valuable insights for educators, curriculum developers, and policymakers, aiding them in making informed decisions regarding the integrating of digital technologies and MRS in EFL reading instruction. Ultimately, the study aims to enhance the quality of reading comprehension

instruction and foster the academic success of young EFL learners in private Yemeni primary schools in Istanbul.

B. Research Questions

1) What are the effects of MRS instruction by ESB on EFL primary school students' reading comprehension?

2) a. What are the effects of MRS instruction based on ESB on EFL primary school students' strategy use?

   b. Do EFL primary school students use MRS when they read e-storybooks?

3) What are the participants' attitudes in this study towards MRS instruction integrated with e-books?

C. Significance of the Study

Based on the reasons outlined in the problem and purpose, it can be inferred that the utilization of ESB in conjunction with MRS instruction holds the potential to support the development of reading competence among young EFL learners (De Jong & Bus, 2003). Furthermore, the characteristics of ESB work collaboratively to enhance young readers' comprehension by providing additional information that is not present in printed books, thereby facilitating the understanding of written words, phrases, or passages for young learners (Fu et al., 2014).

Moreover, unlike adults, children tend to exert less effort when learning a new language. Consequently, instructors need to employ appropriate methods and strategies that expose young learners to diverse language inputs using stimulating techniques. In this context, the current study aims to examine the effects of MRS instruction via ESB on primary school students' reading comprehension. Additionally, the study seeks to explore participants' attitudes towards MRS with ESB. It is a replication of a research conducted by Fu and her colleagues in 2014, and it. In addition, this investigation has the potential to contribute valuable knowledge of teaching EFL to young learners, shedding light on the effectiveness of utilizing digital technologies and MRS in promoting reading comprehension among this population. By replicating and expanding upon the previous research, this study aims to provide further empirical evidence and insights that can inform teaching

practices and improve the efficacy of EFL instruction for young learners.

D. Definitions of Key Terms

1) Metacognitive reading strategies (MRS):" Strategies used by a reader before, during, and after reading to make him/her aware of his or her own reading process" (Babayiğiti,2019 p 2).

2) E-storybook: "An electronic book (e-book) is a digital publication that can consist of text, images, or a combination of both. An electronic book can be read on a proprietary digital device (an e-reader) or on a computer, which requires special software"(Rouse,2016).

3) EFL: "English as a foreign language: the study of English by nonnative speakers living in a non-English-speaking environment " (Collins Dictionary, n.d.).

4) Primary school: "A school for children between the ages of 4 or 5 and 11" (Oxford Learner's Dictionaries, n.d.).

5) Reading comprehension: "the process of simultaneously extracting and constructing meaning through interaction and involvement with written language" (RAND Reading Study Group, 2002, p. 11).

II.   LITERATURE REVIEW

This chapter provides a literature review on reading comprehension and strategy instruction, focusing on MRS, ESB, RS instruction, and students' attitudes towards e-books. The review encompasses studies conducted within Turkey and internationally, offering a thorough understanding of the subject. It explores previous research on reading comprehension and strategy instruction, emphasizing the importance of effective reading strategies for comprehension skills. The role of MRS in supporting learners' comprehension is also discussed. Furthermore, the review examines the integration of technology in reading instruction through electronic storybooks, highlighting their advantages and effectiveness. Additionally, it focuses on students' attitudes towards e-books, providing insights into their perceptions and preferences.

A.   Reading Comprehension and Strategy Instruction

The general question commonly posed by teachers and educators to students is, "Could you explain what the text is about?" however, ongoing research and studies have consistently proved that meaning cannot solely be derived from the text itself, and instead, readers must actively participate in constructing meaning by drawing upon their background knowledge and decoding skills (Alvermann et al., 2003:14). The primary goal of teaching young learners is to aid them in comprehending written messages, as comprehension serves as the gateway to knowledge, supporting their academic journey and lifelong learning (Alvermann and Earle, 2003, National Reading Panel [NRP],2000). According to Ahmedi et al. (2013) reading comprehension refers to readers' capacity to grasp both the explicit and implicit meanings of a text using MRS. It is a complex process that involving an interaction between the text and the readers. Therefore, the ability to understand a text is of utmost importance in academic pursuits and lifelong learning efforts.

Research in the field of reading instruction has explored the effectiveness of using various combinations of reading and individual strategies. The National

Reading Panel (2000) conducted a comprehensive review of this literature, which generally aligns with the consensus that instruction in reading strategies has yielded significant overall success. The report highlights the value of employing and coordinating multiple strategies in instructional settings where teachers and readers engage in interactive discussions about the text (National Reading Panel, 2000, p. 4-46). Therefore, in the context of language development and its relation to reading comprehension, studies have shown that language comprehension and decoding skills are closely interconnected during preschool. However, this interrelation becomes less pronounced in kindergarten and first grade (Kendeou et al., 2009). Furthermore, when individuals engage in reading, they do so with a specific purpose to understand, gather information, or derive enjoyment. This purposeful reading process involves drawing on prior knowledge to construct meaning and helping to facilitates interaction with new information encountered during reading (National Reading Panel, 2000; Alvermann, 2003). Therefore, instructors need to support learners in employing conscious learning strategies, particularly when approaching new tasks in a second language.

Studies conducted over the past three decades have confirmed that skilled readers use RS to decode texts and facilitate the construction of meaning. According to Pressly and Wharton-McDoland (1997), proficient readers, regardless of age, employ comprehension strategies at various stages of reading, including pre-reading, while reading, and post-reading, showing their active and conscious engagement and this highlights the key role that teachers play in fostering these strategies. Consequently, the primary aim of directly teaching text comprehension is to equip learners with strategic competence and self-regulation, enabling them to overcome challenges and barriers encountered during the reading process. The research on reading strategies serves two main purposes. Firstly, they allow teachers to better understand of the metacognitive, cognitive, social, and affective processes involved in language learning. Secondly, they provide an opportunity to instruct less successful and struggling learners with new strategies to support their language acquisition (National Reading Panel, 2000).

Antoniou and Souvignier (2007) conducted a study to enhance reading comprehension, reading strategy knowledge, and reading self-efficacy of 73 in fifth to eighth grade students with learning disabilities (LD). They implemented an

explicit instruction program enriched with self-regulation strategies. The results demonstrated the program's effectiveness in supporting students with LD in the long term. At the immediate conclusion of the program, the experimental group showed significant improvement only in reading-strategy knowledge. However, during the follow-up period, they exhibited much better gains in reading comprehension, reading-strategy knowledge, and reading self-efficacy. The researchers observed relatively large effect sizes for all variables, leading them to conclude that students with LD can attain significant long-term benefits by participating in a reading-strategy program within the classroom setting. This study highlights the potential of explicit instruction and self-regulation strategies to positively impact students with learning disabilities, providing valuable insights for educators and practitioners in supporting this student population in their reading development.

In a study conducted by Al Khaiyali (2014), the focus was on exploring Libyan EFL teachers' and students' perceptions and experiences when utilizing explicit kids' picture books for teaching and learning reading comprehension strategies. The research employed various data collection methods, including surveys, interviews, classroom documents, observation notes, and teachers' memos. The study involved 47 seventh- and eighth-grade Libyan students and their two teachers, spanning one school semester. The teachers received training on using picture books to explicitly instruct reading comprehension strategies. The study's findings demonstrated that employing picture books as a medium for teaching reading comprehension strategies proved to be an effective approach in enhancing EFL students' learning and engagement. Furthermore, the participants' performance showed noticeable progress, exhibiting an increased motivation to learn from picture books, and an improved ability to apply reading strategies to other texts. The study highlights the potential benefits of integrating picture books into EFL instruction to foster better comprehension skills and engagement among students. It also suggests that explicit instruction in reading strategies can significantly contribute to students' overall reading proficiency and strategy use beyond the context of picture books. Educators and practitioners can use these insights to design more effective and engaging EFL teaching methods.

Conversely, Ikeda & Takeuchi (2003) conducted a study to investigate the impact of teaching reading comprehension strategies on 210 Japanese university

students, comprising both proficient and poor English learners. The participants were divided based on their English competence, with each group further split into an experimental group and a control group. The experimental group underwent instruction in specific reading strategies integrated into their curriculum for over eight weeks. Pre- and post-tests, along with a reading strategies questionnaire in Japanese were administered to assess the students' comprehension abilities and their continued utilization of the strategies after the training period. The findings revealed that high proficiency students displayed superior performance in utilizing comprehension strategies compared to the lower proficiency counterparts. The researchers' analysis suggested that the strategies taught predominantly involved top-down processing, which may have been less effective for poor language learners, highlighting the need to focus on bottom-up processing techniques for this group. This study sheds light on the significance of employing appropriate reading strategies tailored to learners' language proficiency levels to enhance their comprehension skills effectively.

Özkan Gürses & Bouvet (2016) in their study examined the relationship between learning styles, reading comprehension, and the perceived use of reading strategies among Turkish and Australian university students studying French. A total of 91 participants from Flinders University and Eskisehir Osman Gazi University completed a background questionnaire, the Survey of Reading Strategies, the Kolb Learning Style Inventory 3.1, and a reading comprehension test. The findings indicated a slight negative correlation between the perceived use of reading strategies and reading comprehension among all participants, particularly within the Australian subgroup. However, these correlation coefficients did not reach statistical significance. Furthermore, the results revealed that participants with converging learning styles reported the highest utilization of strategies in both subgroups, indicating that converging learning styles influenced the perceived use of reading strategies. The researchers identified two potential reasons for the negative correlation: the participants' extensive language experiences and the disparity between their perceived and actual usage of reading strategies. This study underscores the importance of considering individual learning styles and their impact on the perceived use of reading strategies, thereby providing insights into optimizing reading comprehension instruction for language learners.

In conclusion, the literature review demonstrates that reading comprehension is a dynamic process in which readers actively construct meaning by drawing on their background knowledge and decoding skills. The instruction of reading strategies, such as activating prior knowledge, summarizing, monitoring comprehension, making predictions, and utilizing context plays a crucial role in enhancing reading comprehension. The studies discussed in the passage shed light on the effects of strategy instruction on various learner groups. These studies emphasize the importance of balancing different strategies based on learners' proficiency levels and learning styles. While some studies show positive effects of strategy instruction on reading comprehension and self-efficacy, others indicate a complex relationship between the perceived use of strategies and actual reading comprehension outcomes. All in all, these findings contribute to our understanding of the benefits and challenges associated with reading comprehension and strategy instruction, providing valuable insights for educators and researchers in the field.

B. Studies on Metacognitive Reading Strategies

Metacognition, a concept widely accepted in education, encompasses two main aspects: control and knowledge of cognitive states and processes. Scholars have defined metacognition differently, but these two features are consistently mentioned. Control involves the use of metacognitive strategies, while knowledge encompasses personal knowledge, task knowledge, and strategy knowledge (Griffith and Ruan, 2005). Flavell, who introduced the concept of metacognition in the 1970s, defined it as understanding and awareness of cognitive phenomena. He proposed a model of cognitive monitoring that integrates metacognitive knowledge and metacognitive experiences (Baker & Brown, 1980). Metacognitive knowledge includes information related to three variables: person, task, and strategies which contribute to achieving task goals. Additionally, Flavell's model explains how cognitive monitoring combines metacognitive knowledge and experiences. As described by Karbalaei (2010), strategies, refer to an individual's approach to comprehending a task. Thus, metacognition involves both the awareness of cognitive processes and the application of strategies to facilitate task completion. The incorporating of metacognitive strategies and knowledge has been shown to enhance learning and cognitive performance, making metacognition an essential aspect of educational practices.

The main objective of primary school education is to impart the necessary skills for achieving proficient reading comprehension as it serves as the cornerstone for acquiring knowledge throughout one's academic journey. Numerous studies have been undertaken within the field of reading to explore practical and adequate methods of enhancing children's comprehension abilities (National Reading Panel 2000). Various approaches have been proposed to enhance the comprehension of second language (L2) learners, among which the utilization of reading strategies has gained significant recognition (Karami, 2008). These strategies offer learners valuable tools and techniques to interact actively with texts, decipher meaning, and construct a more profound comprehension of the content. By equipping learners with these strategies, educators can effectively support the development of proficient reading comprehension skills, enabling learners to effectively navigate and comprehend intricate texts in diverse subject areas and disciplines.

In her study, Iwai (2011) conducted a comprehensive review of the existing literature on MRS of English as EFL and English as ESL learners, with the aim of providing pedagogical implications for teachers. The researcher first discussed the concept of metacognition, initially introduced by Flavell, and then delved into the importance of metacognitive skills in reading comprehension. Specifically, she emphasized the significance of three knowledge aspects—declarative, procedural, and conditional—in relation to MRS. Based on the literature review, Iwai proposed three recommendations for teachers. Firstly, she highlighted the necessity of teaching MRS in a step-by-step manner, ensuring that learners understand the importance of these strategies for their academic success and achievement. Secondly, she emphasized the importance of incorporating a variety of MRS in the classroom, enabling students to improve their comprehension skills and become independent learners. Lastly, the author emphasized that through the explicit instruction of MRS, learners acquire not only declarative knowledge (knowing what MRS are), but also procedural knowledge (knowing how to use MRS) and conditional knowledge (knowing where, when, and why to use MRS, as well as assessing their effectiveness). These pedagogical implications highlight the significance of incorporating MRS instruction in EFL and ESL classrooms, equipping learners with the necessary skills to enhance their reading comprehension abilities and become more autonomous in their learning journey.

Karbalaei (2010) conducted a study examining the differences in MRS awareness between English as EFL and English as ESL students when reading English academic materials. The participants comprised of 93 Indian and 96 Iranian college students who completed a 30-item scale of the MARSI Questionnaire to assess their metacognitive awareness of reading strategies. Additionally, a reading comprehension test was administered to the participants. The results revealed that both the EFL and ESL groups demonstrated similar levels of MRS awareness. However, the ESL Indian learners reported a higher frequency of strategy usage than the Iranian EFL learners. Moreover, the findings indicated that ESL students tended to employ top-down strategies more frequently to enhance their comprehension, whereas EFL learners showed a greater preference for utilizing bottom-up strategies. This suggests that learners from different language backgrounds may employ distinct reading strategies to facilitate their understanding of academic texts.

Bećirović et al. (2017) explored the role of MRS in the learning process among students from diverse study field groups in Bosnia. The participants comprised of 140 Turkish and Bosnian male and female students from different grade levels studying in both English literature and management departments at a private university. They completed the Metacognitive Reading Strategies Questionnaire (MRSQ), developed by Tabarn et al. (2004). The findings revealed no significant differences in the use of MRS based on gender or nationality, however, notable distinctions were observed in study and grade level. Specifically, English literature students demonstrated a higher proficiency in utilizing MRS, as they were more proficient in English and placed greater emphasis on textual analysis during reading, which enhanced their comprehension abilities. Additionally, the study highlighted that the year of study had an impact on strategy use, with students in higher grade levels employing MRS, particularly pragmatic and analytic strategies, more frequently than those in lower grades. These results underscore the importance of considering students' field of study, language proficiency, and grade level when addressing the implementation of MRS in educational settings, thereby assisting teachers in designing more targeted and effective instruction to support students' reading comprehension skills.

In April of this year, Xie et al. (2023) investigated the effects of three different paths of MRS —metacognitive summarizing strategies, metacognitive

understanding and remembering strategies, and metacognitive assessing credibility strategies—on reading literacy and scientific literacy, with reading self-efficacy as a mediator. The research involved 11,420 15-year-old learners from four Chinese cities. The findings indicated that all three MRS positively impacted on enhancing scientific literacy, with the metacognitive assessing credibility strategies showing the highest effectiveness. Additionally, reading literacy played a crucial role in connecting these three MRS. Moreover, a significant difference was observed between male and female participants regarding the effects of these three strategies on scientific literacy. These results highlight the importance of incorporating MRS in educational settings to enhance students' scientific literacy and emphasize the need for considering gender differences when implementing such strategies. Further research in this area could contribute to a deeper understanding of how MRS can be effectively utilized to improve overall literacy skills and self-efficacy among students.

In contrast, several studies have indicated a moderate utilization of MRS among EFL students. For instance, Meniado (2016) conducted a study to explore the relationships between MRS, reading motivation, and reading comprehension performance. Using descriptive survey and descriptive correlational methods, the research involved 60 Saudi college-level EFL students from an all-male government-owned industrial college. The findings revealed that the participants exhibited a low level of MRS utilization. This lack of usage was attributed to the students' limited knowledge of MRS and the possible absence of MRS instruction from their teachers' reading pedagogy. Additionally, the participants showed a preference for reading humorous texts and comics, suggesting a moderate level of motivation to read. However, regarding reading comprehension performance, the study demonstrated that the respondents' achievements were below average. Surprisingly, no significant correlation was found between the use of MRS and reading comprehension in this context. This highlights the need for more comprehensive approaches to enhance EFL students' awareness and application of MRS in their reading activities, potentially leading to improved reading comprehension outcomes. Further research could investigate effective instructional strategies for promoting MRS among EFL learners and explore their impact on reading comprehension and motivation to read.

Moreover, Abusaeedi and Khabir (2017) investigated the potential correlation between MRS preferences and overall perfectionism among Iranian English as EFL junior and senior students. Additionally, they examined whether there were any gender-related differences in the use of MRS. The research involved 116 EFL students from three Iranian universities who completed the Metacognitive Awareness of Reading Strategies Inventory (MARSI) and the Multidimensional Perfectionism Scale (MPS). The results revealed a significant negative relationship between MRS use and students' perfectionism preferences. In other words, learners who exhibited higher levels of perfectionism tended to score lower in reading comprehension due to their inadequate utilization of MRS. Furthermore, the study did not find any significant difference in MRS usage based on gender. These findings highlight the importance of understanding the relationship between students' metacognitive strategies, perfectionist tendencies, and their overall reading performance, providing valuable insights for educators to enhance reading instruction and support students in developing practical metacognitive reading skills.

In conclusion, the literature reviewed demonstrates the importance of metacognition and MRS in promoting reading comprehension and overall literacy skills among students. Metacognition involves both the awareness of cognitive processes and the application of strategies to facilitate task completion. Effective utilization of MRS has been shown to enhance learning and cognitive performance, making it an essential aspect of educational practices. Various studies have examined the impact of MRS on reading comprehension and academic achievement, highlighting the significance of explicit instruction and step-by-step approaches to teaching MRS. The findings also emphasize the need to consider factors such as language proficiency, field of study, and grade level when implementing MRS in educational settings. Furthermore, gender differences have been observed in the effects of MRS on literacy outcomes, suggesting the importance of considering these variations in instructional practices. However, studies have reported both moderate and low use of MRS among students, indicating the need for comprehensive approaches to enhance students' awareness and application of these strategies. Future research should focus on developing effective instructional strategies for promoting MRS, exploring their impact on motivation to read, and investigating the correlation between MRS, reading comprehension, and other cognitive factors. By incorporating

MRS instruction in the classroom, educators can empower students to become more autonomous learners and develop proficient reading comprehension skills essential for academic success.

C. Electronic Storybooks and Reading Strategies Instruction

In the current digital era, young generation has grown up exposed to various technologies like e-books, apps, and video streaming. This digital lifestyle significantly transformed learning environments, instructional planning, and materials design (Bus et al., 2020). Among the various technological resources, electronic books, commonly known as e-books, have emerged as prominent tools. Fu et al. (2014) defined e-books as digitized versions of traditional books, often enriched with multimedia elements such as written text, oral reading, music, sound effects, and animations. These multimedia features enable users to follow words, phrases, or paragraphs synchronized with oral readings, resulting in improved content comprehension. The additional elements, like animations, music, gamification, and narration make the reading experience more enjoyable and enhance children's comprehension beyond that of printed books (Ihmeideh, 2014). Consequently, there has been a notable trend towards adopting e-books in educational settings in recent years (Unsworth, 2006). Incorporating e-books in education helps to recognize modern learners' digital literacy skills and capitalizes on their familiarity with technology. These digital resources offer interactive and multimedia-rich experiences, fostering active engagement with the content, enhancing comprehension, and cultivating a positive attitude towards reading (Bus et al., 2020; Unsworth, 2006). Therefore, e-books have become valuable assets in contemporary educational practices, providing opportunities for dynamic and compelling learning experiences.

Ertem (2010) conducted a study to examine the impact of different text representations on the comprehension of struggling students. The study involved 77 fourth-grade students from five primary schools in the Alachua, Florida school district. The participants were selected based on their reading abilities, which were at least one or two years below their peers, and they met the conditions of the Sunshine State Standard (SSS) as measured by the Florida Comprehensive Assessment Test (FCAT) in 2007. The students were divided into three groups and exposed to the

story "Sheila Rae, the Brave," which was available in two formats: printed paper book and CD-ROM with interactive and passive modes. The students' comprehension was evaluated through story retelling. The results indicated that electronic books could be beneficial and supportive for struggling readers, and specifically e-books with animations were found to be more advantageous for struggling readers than passive e-books. These findings suggest that incorporating multimedia elements in electronic books can enhance comprehension and offer valuable support for struggling readers.

In his study conducted at a local independent school in eastern Carolina, Wells (2012) reported a significant difference in the reading comprehension of middle and high school students when using e-books compared to traditional formats. The study comprised 138 participants from grades 6 to 12 who were divided into a treatment group and a control group. On the first day of the study, both groups were administered the Gates-MacGinitie Reading Tests® comprehension part, with the control group using the traditional paper test and the treatment group using the online version. On the second day, all participants responded to the Motivations for Reading Questionnaire. On the third day, the experimental group read a passage from Swanson's (2009) book, "Chasing Lincoln's Killer – The Search for John Wilkes Booth," in electronic form, while the control group read it on paper. The study's results provided statistical evidence supporting the continued transition to the electronic format. Although the motivation for reading was not significantly improved using e-books, it was not negatively affected either. Hence, the shift towards electronic books remains a beneficial alternative for educational settings.

Kaban (2021) investigated the effects of digital book reading on various aspects of reading among sixth grade EFL students. The study used one control group and three experimental groups to focus on reading comprehension skills, digital attitude, reading time, and reading motivation. Data was collected through multiple mediums, including tests, questionnaires, surveys, field notes, journals, and interviews. Notably, the study found that while there was no significant difference in comprehension scores among the groups, e-books facilitated vocabulary acquisition, highlighting the potential of digital book reading to enhance vocabulary development in EFL learners, despite no overall difference in comprehension scores. Further research is needed to explore the impact across different grade levels and educational

contexts, but these findings contribute to the existing literature on the benefits of incorporating digital resources, like e-books, in language learning, particularly for vocabulary growth.

In contrast, Park and Lee (2021) conducted a study in South Korea with 97 elementary school students to investigate the impact of extensive reading using tablets on the literal level reading comprehension of EFL learners compared to those exposed to printed books or regular textbooks-based instruction. The participants were divided into three groups: the experimental groups, which used e-books and printed books, and the control group, which received text-based instruction. Over the course of 11 sessions, it was found that the learners in the tablet reading group exhibited greater improvements in literal comprehension compared to the printed books and text-based groups. However, the printed books reading group performed better in deep reading comprehension. Additionally, the printed books group demonstrated significant improvement in grammatical knowledge during the study period, while the other two groups showed no significant increase in their grammatical knowledge over the 11 weeks. These findings suggest that extensive reading using tablets can enhance literal-level reading comprehension in EFL learners, while printed books may be more effective in promoting deep reading comprehension and grammatical knowledge.

In conclusion, the integrating of e-books in educational settings has brought significant transformations, offering interactive and engaging experiences that enhance comprehension and foster a positive attitude towards reading. Studies by Ertem, Wells, Kaban, and Park and Lee have highlighted the benefits of e-books in various contexts. E-books with animations support struggling readers, improve reading comprehension for middle and high school students, and enhance vocabulary acquisition among young EFL students. Extensive reading using tablets improves literal comprehension for EFL learners, while printed books demonstrate advantages in deep reading comprehension and grammatical knowledge. These findings underscore the potential of e-books as a dynamic tool in contemporary education, catering to learners' digital literacy skills. However, further research is needed to explore the impact of e-books in different educational contexts and grade levels.

D. Attitudes Towards E-books

Recently, there has been a growing acceptance and preference for electronic books due to their indispensability in the digital age and environment. Research studies by Chen et al. (2013), Chia Chou (2014), ElAd and Al Musawi (2020), and Divya and Haneefa (2020) have shown that e-books have a positive impact on English language learners, enhancing their motivation to read more English e-books and fostering positive perceptions towards reading. In support of this, the National Literacy Trust's report in 2015 revealed that pupils participating in the Reading Motivation Project (RMP) expressed enjoyment in reading and almost half of them (45.2%) developed a positive perception towards reading through the use of technology. These findings indicate the beneficial effects of e-books on learners' motivation and attitude towards reading, emphasizing their value as valuable tools in promoting literacy and engagement in the digital era.

According to Puripunyavanich (2021), learners prefer digital books available on the Xreading website due to their favorable attributes. These include the convenience of reading anytime and anywhere, easy access to reading data, visibility of book ratings and reviews, and the availability of graded readers. These advantages of e-books stimulate students' comprehension of ideas and facilitate effective learning, as highlighted by previous research (Elad & Al Musawi, 2020). Additionally, Luo et al. (2021) emphasize that e-books are not only free and user-friendly but also enable students to read quickly and selectively choose materials aligned with their reading goals. Abstracts and keywords provided in e-books assist students in swiftly navigating through texts and deciding which ones to pursue. Consequently, these features of e-books contribute to the development of new reading strategies, such as integration and explanation, enhancing students' overall reading proficiency.

Cassidy et al. (2012) conducted a study investigating the frequency of e-book usage among advanced researchers, graduate students, and faculty members at a four-year academic institution. The research aimed to understand the differences in perception, attitude, and behavior between users and non-users of digital books. The study population included all students and researchers from both on-campus and distance-learning programs at Sam Houston State University (SHSU), a Carnegie Research Doctoral university in East Texas. A total of 3772 individuals received an

online questionnaire, of which only 322 respondents completed the survey. The questionnaire consisted of 33 items, but not all items were presented to every participant. Instead, specific items were targeted to different groups, such as faculty or distance students. The findings revealed that, despite acknowledging the convenience of e-books, most respondents still preferred printed books. Furthermore, a significant number of researchers were not well-informed about the advantages of e-books and were unaware of the availability of e-books relevant to their study fields.

Despite the rapid development of the information era and the perceived value of digital books, Cote, and Milliner (2014) found in their preliminary pilot study that two-thirds of the respondents had never read e-books on their smartphones. They emphasized the need for ongoing support to encourage learners to convert to electronic reading. Additionally, they found that students prefer printed books or a combination of printed and digital formats when using textbooks. Several factors contribute to students' reluctance to use digital textbooks, including technical difficulties, challenges in initial set-up, and frequent usability issues (Falc, 2013). Furthermore, Divya and Haneefa (2020) pointed out that learners' perceptions of e-book reading can be influenced by their recreational and academic experiences.

Jeong (2010) conducted a study comparing e-books and printed books in terms of reading comprehension, eye fatigue, and attitudes among 56 sixth-grade Korean students. The findings revealed that the participants performed better when reading traditional printed books compared to e-books. Additionally, they experienced higher levels of eye fatigue while reading e-books than printed books. While eye fatigue can lead to increased tiredness and nervousness among students, most of learners expressed satisfaction with using e-books and recognized them as a helpful reading method. However, the study also indicated that when given the freedom to choose, students tended to prefer printed books over e-books. This seemingly contradictory result was attributed to the students' familiarity and upbringing with traditional printed materials.

In conclusion, the evidence presented in this literature review highlights the increasing acceptance and preference for electronic books (e-books) in the digital era. E-books have been found to positively impact on English language learners, enhancing their motivation to read and fostering positive attitudes towards reading. The convenience and features of e-books, such as easy access, book ratings, and

graded readers, contribute to students' comprehension, effective learning, and the development of new reading strategies. However, despite these advantages, there is still a significant preference for printed books, particularly among advanced researchers, graduate students, and faculty members. This preference may be attributed to a lack of awareness of the benefits of e-books and familiarity with traditional printed materials. Moreover, factors like technical difficulties, usability issues, and the influence of past experiences can contribute to students' reluctance to fully embrace digital textbooks. Additionally, compared to printed books, e-books were found to be less effective in reading comprehension and more likely to cause eye fatigue among young students. These findings suggest the need for ongoing support and further research to promote the adoption and effective use of e-books in educational settings.

III. METHODOLOGY

This chapter provides an overview of the methodology employed in the study. It encompasses various aspects including the research design, participants, materials, and procedures. The research design outlines the framework within which the study was conducted. The participants involved in the study were the experimental and control groups. The materials used in the study were designed to facilitate reading comprehension and were provided to both experimental and control groups. Additionally, a training program was implemented to enhance participants' reading strategies. Data collection involved the administrating reading comprehension tests, strategy use questionnaires, and attitude questionnaires. The reliability of these questionnaires was assessed using Cronbach's alpha, a statistical measure commonly employed to evaluate the internal consistency of a survey instrument.

A. Research Design

This research study utilized a mixed-method approach, incorporating a quasi-experimental design. The purpose was to investigate the impact of MRS instruction based on ESB on the reading comprehension, strategy use, and attitudes among Arab EFL primary school students. Additionally, the study aimed to explore the challenges encountered by the participants during the training program.

The data collection instruments included the MRS questionnaire developed by Tabaran et al. (2004), four comprehension tests for four e-stories, and the attitudes questionnaire from (Fu et al. ,2014). The study took place over a period of 12 weeks, from the middle of December 2022 to the middle of April 2023. This timeframe incorporated a three-week break for the first semester vacation, and a two-week interruption caused by the tragic earthquake that occurred in Turkey on February 6th.The participants in the study consisted of 4th- and 5th-grade students. The experimental group received MRS instruction integrated with ESB, while the control group received only traditional instruction during ESB reading sessions.

The study design aimed to compare the outcomes and effects of the instructional interventions between the two groups.

B. Participants

The participants of this study were 40 primary school students from a Yemeni private school in İstanbul city. Four participants didn't attend some of the intervention classes, so their data was excluded, and the exact number were 36 participants. Most of them were Yemeni and a few of them were Egyptian and Syrian students. The researcher contacted the participants' parents and the school administration and got their permission. The participants learned English as a required subject since first-grade and the system in the school for grades 4th ,5th, and 6th is to teach English for those grades together because of the gaps of the English language proficiency in the same class, as a result they are divided into homogeneous groups according to their English proficiency exam scores. They are divided into levels 1,2 and 3, and they are exposed to the same book "Kid's Box" series by Nixon and Tomlinson. The students are homogeneous groups in terms of their English proficiency and no need to have proficiency test before the intervention sessions. The participants were 17 males and 23 females, the average age being 11 years old. All of them received instruction from the same teacher, the researcher herself, and their English proficiency was medium, not high nor low as beginners. The participants were also divided into an experimental group of 19 students, 7 males and 12 females, and a control group of 17 students, 8 males and 9 females.

C. Materials and Procedures

1. Reading Materials for Both Groups

The experimental and the control groups were exposed to the same set of ESB. They were four e-storybooks from *Aesop's Fables* on *Fairy Tales* app: "The Fox and the Crow", "The Hare and the Tortoise", "The Lion and the Mouse", and "The Ant and the Grasshopper". These e-books were assessed and analyzed by the ESB's selection criteria suggested by Shamir and Korat (2009) which include having clear story structure, reading options (forward and backward buttons), technical features (animation and sound). Furthermore, the experimental group received

additional training on five reading strategies.

2. Training Program

The two groups were instructed for 12 weeks with one 40-minute period per class a week. The experimental group was exposed to reading strategy instruction through ESB which was divided into three phases: pre-reading, while reading, and post-reading. The lesson plan was prepared for each session. The experimental group's lesson plan depended on integrating the MRS with discussion, teacher's memo, and games, and using the ESB features, i.e., the narrator reading, pictures and games for two sessions and in the third session the students listened to the narrator again and answered the comprehension test for the instructed story.

In the pre-reading stage, the first two strategies instructed were anticipating and activating the learners' background knowledge. The teacher asked the students to read the title and use it with the cover pictures to anticipate what characters they would find and what may happen throughout the story. The students enthusiastically interacted with these two strategies. They recalled all the information and ideas related to the topic, expressing their ideas in English and Arabic. The teacher noticed that the first session for every new story was always more exciting and interesting than the second and the third sessions for the students. It may be because, it is the first time they recalled their prior knowledge about the new topic. During the while-reading stage, anticipation was the primary strategy the teacher focused on. She encouraged the learners to infer the meaning of the unknown words based on the context during reading and browsing the story's pages, and the teacher used memos to clarify the ambiguity of the unfamiliar vocabulary.

In the post-reading stage, the teacher concentrated on monitoring strategies like questioning, generation and question answering, identifying structure, rereading for more understanding, and summarizing. In addition, the teacher asked about the structure of the story, the characters, the time, and the place where the story happened, why, and how the characters solved the problem. Then, the participants were asked to summarize the main idea and infer the moral of the story. Eventually, in the third session, the students reread the story and had the comprehension test.

The control group was instructed by the same set of e-storybooks' reading program but without any reading strategy instruction. In the pre-reading stage

through the first session, the teacher introduced the unknown words and the new structures with pictures using the smart board and PPT before reading the story. Students followed the teacher and read the new words and structures aloud. In while-reading stage through the second session, the teacher browsed the story page by page using the smartboard and explained the meaning of the content as the students read the story aloud. In the third session, the post-reading stage played the ESB games and listened to the narrator of the story. Then they had an immediate comprehension test.

D. Data Collection

In this study, the researcher employed several instruments to gather data. These instruments included four immediate instruction post-tests, a questionnaire assessing strategy use, and a questionnaire examining participants' attitudes towards e-books in relation to reading strategy instruction.

1. Reading Comprehension Tests

The researcher created four reading comprehension tests for this study, drawing inspiration from the models described by Fu et al. (2014). These tests were administered to both groups immediately after each story's instruction in the third session of each story, aiming to assess the participants' reading comprehension. Each test consisted of three sections. Part 1 consisted of four matching questions, requiring participants to associate vocabulary with corresponding pictures. Part 2 consisted of four true or false comprehension questions. Part 3 consisted of four multiple-choice comprehension questions. Each item was scored out of 5 points, resulting in a total possible score of 60 points. As the total population size was 36 participants, the researcher opted to employ a non-parametric statistical test (Mann-Whitney) for independent samples.

2. Strategy Use Questionnaire

The researcher employed a survey-based approach to identify the utilization of five specific strategies derived from a previous study conducted by Tabaran et al. (2004). These strategies were selected from an original set of 22 items and were implemented both before and after the intervention to examine participants' use of

MRS based on ESB. The instructed strategies were activating prior knowledge, checking the main idea, using the context to infer the meaning of the unknown words, monitoring comprehension, and prediction.

Cronbach alpha coefficient was computed, to assess the reliability of the questionnaire resulting in a value of 0.66 for the five items, surpassing the threshold of 0.60 that is commonly adopted for comparison. Additionally, the stability coefficient of the questionnaire exhibited a high stability ratio, exceeding the minimum level of 0.60 set for comparison. The questionnaire was administered in both Arabic and English languages, and the participants were instructed to indicate their frequency of strategy usage using a five-point Likert scale, ranging from 1 ("never use it") to 5 ("always use it"). Non-parametric test (Wilcoxon) was employed for both groups, to examine any changes in scores between the pre- and post-questionnaires regarding the use of the instructed strategies.

3.   Attitude Questionnaire

The participants in the experimental group were requested to provide their perceptions and attitudes regarding the instructed MRS within the context of ESB. This was achieved through their responses to five questions adapted from Fu et al. (2014). Additionally, the participants were asked to provide justifications for their ratings and offer explanations for their responses by answering the question "Why?" provided after each survey item. These ratings and justifications were then utilized to assess the values and implications of the instructed MRS. Cronbach alpha coefficient was calculated, to ensure the reliability of the questionnaire resulting in a value of 0.69 for the five items. This value exceeded the threshold of 0.60, indicating a satisfactory level of internal consistency and reliability.

The questionnaire was administered in both Arabic and English languages, and the participants were instructed to indicate the frequency of their strategy usage using a five-point Likert scale, ranging from 1 ("never use it") to 5 ("always use it"). Non-parametric test (Wilcoxon) was explicitly employed for the experimental group in order to examine the participants' attitudes towards this instructional approach.

IV. RESULTS AND DISCUSSION

This chapter presents the data analysis outcomes conducted on the collected data. The results have been explained and defined, with a primary emphasis on presenting the data pertaining to learners' comprehension following the instruction of MRS via ESB, as well as the usage of MRS and the participants' attitudes regarding this approach of instruction.

A. The Results of Reading Comprehension Tests

The first primary objective of this research study was to assess the impact of MRS instruction through ESB on primary EFL learners' comprehension in the experimental group, and to compare their scores with those of the control group, which received ESB intervention without MRS instruction. Nonparametric Mann-Whitney U test was used to examine the differences in scores between the experimental and control groups. This statistical test, which suitable for independent samples, was employed to identify any variations in scores between the two groups. The results revealed no significant distinction in the impact of instructing MRS through ESB on the reading comprehension of EFL learners in primary schools, as observed in both the experimental and control groups. Table1 provides an overview of the test results.

Table 1 :Significance of Differences in Reading Comprehension between Experimental and Control Groups

	Groups	N	M	Sum of ranks	U	α
The Fox and the Crow	EG	19	15.42	293.00	103	0.06
	CG	17	21.94	373.00		
The Hare and the Tortoise	EG	19	15.76	299.5	109.5	0.1
	CG	17	21.56	366.50		
The Lion and the Mouse	EG	19	19.61	372.50	140.5	0.51
	CG	17	17.26	293.50		
The Ant and the Grasshopper	EG	19	17.58	334.00	144	0.59
	CG	17	19.53	332.00		

N= Numbers, M= Mean, U= Value of U, α= alpha, EG = Experimental Group, CG = Control Group

The analysis of the data presented in Table 4.1 provides insights into the calculated values U of reading comprehension scale, indicating (103, 109.5, 140.5, 144) as the respective values. These values were accompanied by significance levels of 0.06, 0.1, 0.51, 0.59, which did not reach statistical significance at the commonly used threshold of 0.05. It can be inferred that there were no statistically significant differences between the experimental and control groups in reading comprehension in the scores obtained. Nevertheless, it is important to highlight that the U values 103, 109.5, 140.5, 144 reveal a consistent increase of the participants' reading comprehension over time. For instance, the U value for the first test of "The Fox and the Crow," was 103, whereas the U value for the final test of "The Ant and the Grasshopper," reached 144. This progressive increase in U values suggests a gradual improvement in the participants' reading comprehension skills. It can be inferred that the participants became more accustomed to this instructional approach, resulting in enhanced comprehension abilities. The findings indicates that the effects of MRS instruction, delivered through ESB, do not significantly differ in terms of their impact on reading comprehension among EFL learners in primary schools. This result aligns with the previous studies conducted by (Fu et al.,2014; Kaban,2021).

Though evidence from many other studies indicated that the intervention with strategic approaches enhanced students' reading comprehension effectively (Baker, 2005; Unsworth, 2006; Iwai, 2011; Karami, 2010; Karbalaei, 2010; Xie et al.,2023). Furthermore, research explored the potential benefits of multimedia indicating the use of electronic books and interactive multimedia elements in engaging learners and improving their understanding and retention of information (Unsworth, 2006; Ertem,2010; Bus et al.,2020). Consequently, it is crucial to consider several reasons for this current study's findings considering the previous research.

Firstly, the presence of many unfamiliar words within the context of the text may have affected the participants' ability to comprehend the material (Fu et al.,2014) and young readers were not proficient in effectively acquiring those unfamiliar words during the instructional short timeframe, thereby preventing notable enhancements. Secondly, the strategies instructed within this study primarily encompassed top-down processing, which could have exhibited limited effectiveness among the participants with lower proficiency, underscoring the necessity to emphasize bottom-up processing methods for this specific demographic (Ikeda &

Takeuchi 2003; Kabalaei, 2010). Thirdly, the instructional approach used in this study wasn't familiar with the participants which may led to this result. Although, there was a progressive increase in the tests' scores indicating a gradual improvement in the participants' reading comprehension skills. In addition, it can also be inferred that the participants became more accustomed to this type of instructional approach, resulting in enhanced comprehension abilities. Fourthly, the participants' lack of prior experience in reading lengthy English texts, coupled with variations in text length and complexity, could be potential factors contributing to the lack of statistically significant improvement in reading comprehension. Lastly, the 12-week duration of the training program might have been insufficient, potentially necessitating a longer period to achieve notable improvements.

In summary, the lack of significant variation in reading comprehension outcomes among the participants may be explained by several factors. These include the participants' reliance on bottom-up strategies compared to the up-down strategies employed in the intervention, the presence of numerous unfamiliar words in the text, and the limited duration of the training program. These justifications highlight the importance of considering the specific characteristics of both the learners and the instructional materials when evaluating the effectiveness of MRS instruction delivered through ESB. Further research is necessary to explore these potential reasons and gain a deeper understanding of the factors contributing to the effectiveness of MRS instruction delivered through ESB.

B. Strategy Use Questionnaire

The researcher divided the investigation into two parts to evaluate the implementation of strategies among the participants in both the experimental and control groups. One part focused on the strategy used within the experimental group, while the other concentrated on the control group. This division allowed for a thorough assessment of strategy utilization in each group and facilitated a comparative analysis between the two groups.

1. Strategy Use of Experimental Group

The second primary objective of this research study was to assess the influence of MRS use of the students in the experimental group after the

implementation of MRS instruction through ESB. The researcher employed Wilcoxon nonparametric statistical method to analyze the differences in mean scores and standard deviations between the pretest and posttest measures within the experimental group. By conducting this initial analysis, a comprehensive understanding of the score distribution was obtained. Subsequently, the researcher conducted Wilcoxon nonparametric test for correlated groups to determine if there was a statistically significant change in students' scores after completing the MRS questionnaire.

The findings obtained from the statistical analysis are presented in table 4.2 referenced within the text. This table illustrates the observed variations in scores within the experimental group before and after the implementation of ESB as part of the MRS intervention. The data from the table contribute to assessing the effectiveness of utilizing MRS in improving students' reading comprehension skills.

Table 2 Descriptive Statistics and Standard Deviations (Experimental Group)

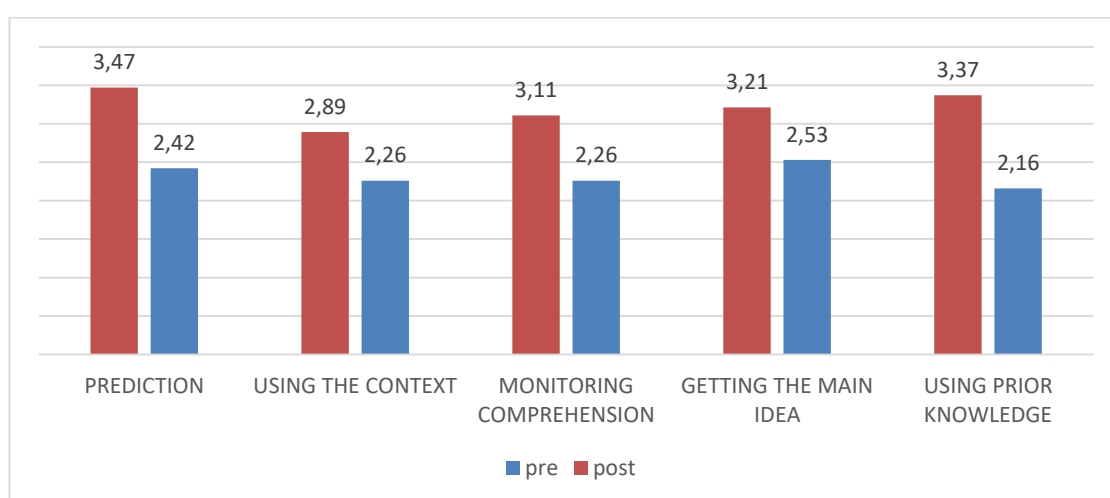|	Pre-test		Post-test		MD
	M	**SD**	**M**	**SD**	
Using prior knowledge	2.16	.602	3.37	1.065	-1.21
Getting the main idea	2.53	.841	3.21	1.134	-0.68
Monitoring comprehension	2.26	1.046	3.11	1.286	-0.85
Using the context	2.26	1.046	2.89	1.197	-0.63
Prediction	2.42	.838	3.47	1.349	-1.05

Figure1 Mean Scores of Pre-Post Use of Metacognitive Reading Strategies (Table 2)

Based on the data provided in Table 4.2 and the histogram shown in Figure 4.1, the results of this study demonstrate a noteworthy enhancement in the mean scores of MRS when employing ESB as instructional tools for young EFL participants. Specifically, the average score in the posttest (M=3.37, 3.21 ,3.11, 2.89 ,3.47 respectively) for the experimental group is significantly higher than the mean scores observed in the pretest (M= 2.16, 2.53 ,2.26, 2.26, 2.42 respectively) indicating a positive impact of the intervention. These findings are consistent with the research conducted by Fu et al. (2014), and Melinis (2011) who also reported significant improvements in MRS when utilizing ESB as instructional tools. Moreover, these results align with previous studies that have examined the effectiveness of MRS instruction, albeit not specifically through using e-books (Sheorey & Mokhtari, 2001; Salataci & Akyel, 2002; Çubukçu, 2008; Abusaeedi and Khabir, 2017).

The researcher employed Wilcoxon test for paired samples to ascertain the statistical significance of these observed differences within the experimental group. This statistical analysis selection was based on its ability to assess whether the changes in scores from the pretest to posttest were statistically significant or merely attributable to random variation.

Table 3 Wilcoxon Z-values and Significance of Differences (Experimental Group)

	T	DRD	N	M	SR	Z	α	ES
Using prior knowledge	Pre – post	negative	13	7.77	101.00	-3.096	.002	-0.710
		Positive	1	4.00	4.00			
		Neutral	5					
Getting the main idea	Pre – post	negative	12	8.88	106.50	-2.055	.040	-0.471
		Positive	4	7.38	29.50			
		Neutral	3					
Monitoring comprehension	Pre – post	negative	11	7.45	82.00	-2.623	.009	-0.602
		negative	2	4.50	9.00			
		Neutral	6					
Using the context	Pre – post	negative	12	9.75	117.00	-1.401	.161	-0.321
		Positive	6	9.00	54.00			
		Neutral	1					
Prediction	Pre – post	negative	14	8.00	112.00	-2.306	.021	-0.529
		Positive	2	12.00	24.00			
		Neutral	3					

Direction of Rank Differences, MR = Mean of ranks, SR = Sum of Ranks, **α =** Significant Level, ES = Effect Size= DRD

The analysis of Table 3 reveals significant Wilcoxon (Z) values for all strategies, except for "Using the Context," at the level of 0.05 which indicates

significant differences in the total ranks of the pretest and posttest measurements within the experimental group concerning MRS instructed through ESB. The results demonstrate statistically significant differences favoring the posttest scores, highlighting a positive impact on English reading comprehension (Sheorey & Mokhtari, 2001; Salataci & Akyel, 2002; Antoniou and Souvignier, 2007; Çubukçu, 2008).

The findings from this study strengthen the existing body of knowledge in the field and provide additional support for the integrating technology-based interventions, into reading instruction. Corroborating previous research (Fu et al.,2014; Melinis, 2011; Chen, Ferdig, & Wood, 2005) with this study reinforces the notion that ESB holds significant potential in promoting students' reading comprehension skills and metacognitive abilities. Additionally, the findings confirm the influence of MRS instructed via ESB on reading comprehension among students in the experimental group. Effect sizes, calculated using the accompanying equation, further indicate the magnitude of the observed effects. These results reinforce the effectiveness of utilizing ESB to enhance reading comprehension through MRS (McKenna et al., 1999; RAND Reading Study Group, 2002; Fu et al., 2014) The analysis of the effect sizes provides valuable insights into the practical significance of the intervention.

The effect size was computed according to the accompanying formula for measuring the effect associated with Wilcoxon test. By manually substituting the values into the equation, the effect size values were determined to be 1 for the total scale score. These findings indicate that the program's impact on metacognitive reading strategies using electronic storybooks significantly influenced reading comprehension. This implies that the program had a positive effect on improving metacognitive reading strategies through the utilization of electronic storybooks, ultimately enhancing reading comprehension among the participants in the experimental group. This research contributes to the existing literature by providing evidence of the positive effects of incorporating ESB as a tool for MRS and improving reading comprehension in English. It emphasizes the importance of innovative instructional approaches in cultivating students' metacognitive awareness and engagement during the reading process.

2. Strategy Use of Control Group

A comparative analysis was carried out to assess the disparities in scores between the control group's pre-test and post-test results using MRS mediated by ESB. The study's objective was to investigate the utilization of MRS among the participants in the control group and determine the variation in the use of MRS between the control and the experimental groups. The researcher employed the non-parametric Wilcoxon test for the related samples to assess the variations in scores between the pre-test and the post-test scores within the control group. Firstly, the mean scores and standard deviations were calculated for pre- and post-tests. Subsequently, Wilcoxon test was conducted to determine any changes that occurred in the students' scores in the control group after the intervention using ESB. The analysis results and the differences between the pre- and post-tests in the control group are presented in table 4.4. The table reflects the changes in the students' scores on MRS use before and after the intervention. This non-parametric analysis focuses on score differences without relying on assumptions of normal distribution, thereby enhancing the analytical power and suitability for this study. Through this analysis, the researcher and the readers can identify the relative changes in students' scores and the impact of using MRS.

Table 4 Descriptive Statistics and Standard Deviations (Control Group)

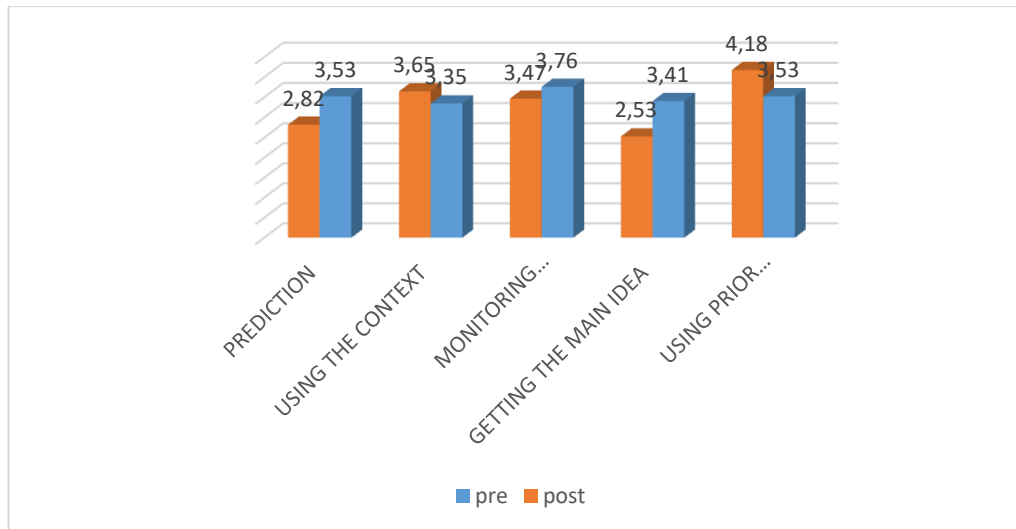|	Pre-test		Post-test		MD
	M	SD	M	SD	
Using prior knowledge	3.53	1.281	4.18	.883	-0.65
Getting the main idea	3.41	1.372	2.53	1.179	0.88
Monitoring comprehension	3.76	1.300	3.47	1.328	0.29
Using the context	3.35	1.367	3.65	1.412	-0.3
Prediction	3.53	1.663	2.82	1.237	0.71

Figure 2 Mean Scores of Pre-Post Use of Metacognitive Reading Strategies Table 4

From Table 4, it is evident that the mean scores of the use of MRS are higher in the post-test compared to the pre-test in the strategies " Using prior knowledge and using the context " (M = 4.18, 3.65) for the control group. However, the strategies "Getting the main idea, Monitoring comprehension, and Prediction" (M = 2.53,3.47, 2.82) reached lower scores in the post-test, indicating significant differences between the two tests. Wilcoxon test for related samples was employed to determine the statistical significance of these observed differences between pre- and post-test scores in the control group. This test was used to assess whether or not the differences in the mean ranks of the control group's pre- and post-test on MRS scale were statistically significant. The results of this test are presented in Table 5.

Table 5 Wilcoxon Z-values and Significance of Differences (Control Group)

	Test	DRD	N	MR	SR	Z	α	ES
USING PRIOR KNOWLEDGE	Pre - post	Negative	9	6.83	61.50	-1.889	.059	-0.46
		Positive	3	5.50	16.50			
		Neutral	5					
GETTING THE MAIN IDEA	Pre - post	Negative	1	3.50	3.50	-2.506	.012	-0.61
		Positive	9	5.72	51.50			
		Neutral	7					
MONITORING COMPREHENSION	Pre - post	Negative	3	6.00	18.00	-1.026	.305	-0.25
		Positive	7	5.29	37.00			
		Neutral	7					
USING THE CONTEXT	Pre - post	Negative	7	6.43	45.00	-.478	0.633	-0.12
		Positive	5	6.60	33.00			
		Neutral	5					
PREDICTION	Pre - post	Negative	4	6.50	26.00	-1.693	.090	-0.41
		Positive	10	7.90	79.00			
		Neutral	3					

Direction of Rank Differences, MR = Mean of ranks, SR = Sum of Ranks, **α =** Significant Level, ES = Effect Size= DRD

Wilcoxon (Z) values obtained from the analysis did not reach statistical significance at the 0.05 level, except for the "Getting the main idea" component. This suggests that there were no significant differences between the pre- and post-test scores of the control group on the scale measuring the use of MRS. It also should be noted that the control group did not receive any intervention related to MRS during the study.

This study's results indicate no significant variations in the use of MRS among students in the control group after the intervention program. This lack of statistically significant differences suggests that the control group's exposure to regular classroom instruction without specific MRS intervention did not lead to noticeable changes in their utilization of MRS. To assess the magnitude of the observed effects, the effect sizes were calculated using the appropriate equation accompanying Wilcoxon test. These calculations revealed effect size values below 1 for the overall scale score, indicating a minimal impact of the program on enhancing MRS. Therefore, it can be concluded that the program did not make a substantial contribution to improving MRS among students in the control group. This additional analysis provides a quantitative measure of the impact of the intervention on the control group's MRS utilization, which can further contribute to the interpretation and understanding of the findings.

C. The Attitudes of the Experimental Group

1. The Quantitative Data

The participants in the experimental group were administered an attitudes questionnaire to gauge their attitudes towards MRS instruction via ESB following the completion of the training program. An analysis was then conducted to examine any discrepancies between the presumed average and the actual mean responses provided by the participants. A one-sample median test was utilized to assess these differences and to compare the median value of the participants' responses with the hypothetical median value of the scale. This analysis aimed to determine whether the participants' responses significantly deviated from the anticipated average indicated by the scale. The results of this analysis in table 4.6 below, offer insights into the significance of these disparities and illuminate the extent to which the participants' responses differ from the hypothetical mean value of the scale.

Table 6 : Medians Towards Integrated Reading Strategy Instruction with E-Books

	Median	z	α
1. Enhancing content comprehension	3	0.000	1.000
2. Enhancing English learning motivation	4	0.000	1.000
3. Improving reading competence	3	1.864	.062
4. Increasing reading confidence	3	-.174	.862
5. Preferring E-book-based reading strategy	4	.335	.737
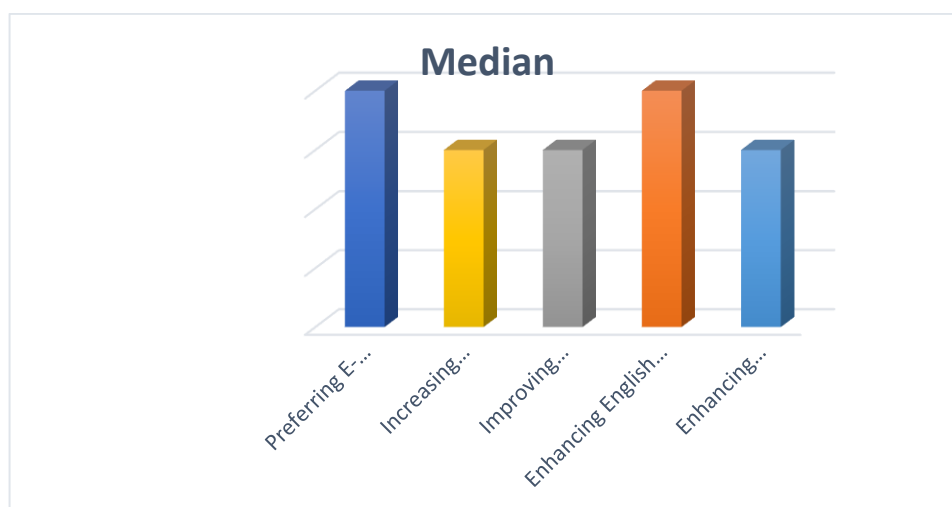
Figure3 : Median of Data Table 6

The statistical analysis of the collected data resulted in Z-values (0.000, 0.000, 1.864, -.174, .335) that did not reach statistical significance at the 0.05 level. This indicates no substantial difference in the participants' acceptance of MRS instruction delivered through e-books. Consequently, the participants demonstrated a moderate level of agreement in their attitudes towards this instructional approach. However, it is noteworthy that the median scores for enhancing English learning motivation and preferring E-book-based reading strategy were 4 compared to the median scores for enhancing content comprehension, improving reading competence, and increasing reading confidence, which were 3.

These findings align with previous studies conducted in the field. For example, Al Khaiyali (2014) investigated the use of children's picture books to explicitly teach reading comprehension strategies and reported promising outcomes in the Libyan EFL classrooms. Moreover, Fu et al. (2014) found that learners

exhibited greater motivation towards English reading and preferred ESB that incorporated reading strategy instruction in English classes. Unsworth (2006) emphasized the potential of e-literature in enhancing digital literacy learning and advocated for integrating technology in reading instruction. In addition, Richardson and Mahmood (2012) explored e-book readers' satisfaction and usability, providing insights into the potential benefits and challenges of using e-books for reading. Moreover, the work of Wells (2012) delved into the differences in reading comprehension and motivation levels between students using electronic books and those using traditional print books. This research aligns with the current study's focus on investigating the impact of e-books in delivering MRS instruction.

2. The Qualitative Data

The researcher implemented a meticulous approach during the administration of the attitude questionnaire to gain a deeper understanding of the subjects' responses and provide further justification. This involved employing "why?" questions following each item to elicit qualitative data that could shed light on the participants' attitudes towards MRS instruction through ESB. The insightful responses provided by the participants in the experimental group proved instrumental in illuminating the study's results, which yielded a non-significant outcome in this case. Importantly, the qualitative data gathered through the wh-questions may offer a more comprehensive understanding of the attitudes held by the participants towards MRS instruction via e-books. By exploring the reasons behind their responses, this qualitative data can provide valuable insights into the nuanced perspectives and experiences of the participants, contributing to a richer analysis of the instructional approach.

a. Enhancing Content Comprehension

In response to item 1 " Does reading strategy teaching using e-book stories support you to understand better the content of the story? Why?", the participants' perception was found to be moderate. However, their responses to the question of "why?" shed light on the underlying reasons for their perspective.

A significant majority of the participants expressed that the inclusion of animation and games within the e-book stories played a vital role in enhancing their comprehension of the text. Their responses highlighted how these interactive elements contributed to a more effective learning experience while others

commented differently. As exemplified by one student's comment, "This instructional approach helped me a little bit because of the provided games and pictures." The presence of engaging visual and interactive components seemed to positively influence their understanding of the story. Furthermore, the participants acknowledged that reading strategy teaching using e-book stories facilitated the acquisition of new vocabulary. They recognized that encountering unfamiliar words within the story's context aided their learning process. As one participant stated, "Because the stories helped me to learn words that I don't know." This aspect of e-book stories proved beneficial in expanding their vocabulary repertoire.

Another factor mentioned by the participants was the ease associated with this instructional approach. They found reading strategy teaching using e-book stories to be a more accessible and convenient method. This sentiment was reflected in statements such as "It is easier" and "It's a good way." The convenience and user-friendly nature of e-books appeared to contribute to a positive reading experience (Cassidy et al. ,2012; Puripunyavanich, 2021). In addition to the points, the visual appeal of e-book stories was also highlighted by the participants. They expressed their appreciation for the attractive and captivating illustrations present in the e-books. As one participant stated, "The pictures are very attractive." The visual aspect of e-books captured their attention and enhanced their engagement with the reading material.

In summary, the participants' perception regarding the support provided by reading strategy teaching using e-book stories in understanding the content of the story was moderate. However, their responses shed light on specific factors contributing to this perception, such as the presence of animation and games, the facilitation of vocabulary acquisition, the ease of use, and the visual appeal of e-book stories. These insights underscore the advantages of utilizing e-books as an instructional medium for enhancing comprehension in reading instruction.

b. Enhancing English Learning Motivation

The participants' responses to item 2, "Does reading strategy teaching using e-book stories increase your desire to learn English? Why?" indicated a median score of 4, which was higher than the neutral level of 3.00. This suggests that most of the students expressed an increased desire to learn English through MRS instruction based on ESB. Their responses to the question "why?" provided valuable insights

into the underlying reasons for their increased desire to learn English. By examining their responses, the researcher gained a deeper understanding of their perceptions and motivations.

The students' responses regarding item 2 exhibited a range of perceptions, encompassing both positive and negative viewpoints. When they were asked about their experiences with e-books some students expressed positive sentiments in language learning. One student stated, "Because I learn English from the stories," indicating that using these resources facilitated their language acquisition process. Another student highlighted the positive impact of e-books, animations, and games, remarked, "The e-books, animation, and the games increase the desire to read." This suggests that these interactive and multimedia elements enhanced their motivation to engage in reading activities (Ertem, 2010; Fu et al., 2014; Prasetya, & Hirashima,2018). Similarly, some students simply mentioned their desire to learn English as a reason for their positive perception (Chen et al.,2013; Chia Chou, 2014; ElAd and Al Musawi, 2020; Divya and Haneefa, 2020).

Moreover, several students emphasized the benefits they derived from these resources in terms of reading and writing improvement. One student expressed, "They helped me in improving my reading and writing better than the past," suggesting that the use of e-books, animations, and games positively impacted on their literacy skills. Another student specifically mentioned the positive influence on vocabulary acquisition (Kaban, 2021), stating, "They helped me in reading and retaining vocabulary." These responses indicate that these resources were perceived as effective tools for enhancing language proficiency. Furthermore, several students conveyed their strong positive opinions, using phrases such as "very much" to express their appreciation for the e-books, animations, and games. Some students found them easy to use, one student stated, "because they are easy." Another student attributed their positive perception to the aesthetic and educational qualities of the animations, saying, "Yes, because the animations are very beautiful and beneficial." Additionally, a student highlighted the impact on comprehension and autonomy, stating, "They helped me to comprehend better and be an autonomous learner." These responses suggest that the students found these resources engaging, visually appealing, and conducive to their comprehensive language learning experience.

On the contrary, some students expressed negative perceptions or encountered challenges with the materials. For instance, one student stated, "The stories were very difficult," indicating difficulty in comprehending the content provided. Similarly, some students felt that the resources only provided limited assistance, as one student remarked, "I didn't understand some of the books," and another student mentioned, "It only helped a little bit." These responses reveal the contrasting experiences and challenges faced by particular students when utilizing these resources.

c. Improving Reading Competence

The participants' responses to item 3, " Does reading strategy teaching via using e-book stories improve your reading competence? Why?" provided valuable insights into the impact of teaching reading strategies by using e-book stories on their reading competence and the reasons behind their perspective. These insights offer a comprehensive understanding of the participants' viewpoints and shed light on the factors contributing to the moderate agreement regarding the effectiveness of incorporating reading strategy instruction with e-book stories (ESB). Analyzing the participants' responses indicated their experiences with reading strategy instruction using e-book stories and the reasoning behind their moderate agreement regarding its effectiveness. Their perspectives contributed important context and revealed how learners perceive the integration of reading strategy teaching and e-book stories.

The participants' responses exhibited a range of perspectives, encompassing positive, neutral, and negative viewpoints. For instance, one student expressed the positive impact of reading strategy instruction using e-book stories by stating, "Because it helped me to learn vocabulary." Another student remarked, "It is helpful; now I can read much better." These responses highlight the beneficial effects of this instructional approach on enhancing vocabulary acquisition and reading skills. Moreover, several students emphasized the advantages of reading strategy instruction with e-book stories. One student mentioned, "It helped me in reading, and the photos let me comprehend better." This suggests that the inclusion of visual aids, such as photos, contributed to a deeper understanding of the text (Bus et al., 2020; Unsworth, 2006). Another student stated, "Because I was reading every day," emphasizing the regular practice enabled by this approach (Luo et al., 2021). Additionally, a student attributed their positive perception to the motivational nature of the stories (Bus et

al., 2020; Unsworth, 2006), stating, "Because the stories were motivating". Some participants appreciated the ease of using e-book stories, as one student noted, "Because they are easy." Another student simply expressed their satisfaction, stating, "Very much." These responses indicate a positive perception towards the accessibility and user-friendliness of e-book stories.

In contrast, a few responses displayed a neutral stance. Two students acknowledged the benefits of the approach but indicated a limited impact by stating, "They helped me, but not very much." Another student responded with uncertainty, saying, "Probably". In addition, some participants negatively perceived the reading strategy instruction using e-book stories. One student remarked, "It didn't help me much, I don't know why," suggesting a lack of perceived effectiveness. Another student attributed their negative viewpoint to the difficulty of the vocabulary, stating, "Because the words are difficult." One participant straightforwardly stated, "I don't think so," indicating a lack of belief in the effectiveness of this instructional approach.

d. Increasing Reading Confidence

The participants' responses to item 4, " Does reading strategy teaching via using e-book stories help you to read more confidently? Why?" yielded a neutral score of 3. This indicates that their opinions were evenly split, with some expressing positive views, others remaining neutral, and others indicating a lack of confidence in their reading abilities. By analyzing the gathered data, a more profound understanding of the participants' perspectives can be gained.

The participants' feedback encompassed a spectrum of perspectives, ranging from positive to neutral and negative. For instance, one student expressed a positive impact on their reading ability, stating, "Because it helped me read better." This highlights the positive influence of the reading strategy instruction using e-book stories (ESB) on their reading skills. Similarly, other participants reported increased confidence in their reading, with one student mentioning, "It helped me to be more confident in reading," indicating that the integration of reading strategies with e-book stories contributed to a boost in their reading self-assurance (Elad & Al Musawi, 2020; Luo et al.,2021). Several students strongly agreed with this approach's effectiveness, with statements like "Yes, it's very helpful" and "It gives more confidence, and I have progressed in reading." some students attributed their

improved confidence in reading to their regular reading habits, with one stating, "I'm a confident reader because I read every day." Another student mentioned that the instruction helped them cope with reading anxiety, stating, "It has helped me because I get nervous during reading."

Conversely, some participants provided neutral responses, acknowledging the benefits of the instruction but expressed preferences for traditional printed books. One student commented, "It's helpful, but the printed books are better." Another student indicated that using e-book stories made no significant difference to them. However, some participants still acknowledged the helpfulness of the approach, stating, "It helped me quite a bit." Furthermore, some participants reported negative responses to the reading strategy instruction using e-book stories. For instance, one student expressed feeling nervous and afraid of making mistakes while reading, indicating a potential negative impact on their confidence. Another student directly stated, "No, not really," suggesting a lack of perceived benefit from the instructional approach. Additionally, some participants cited difficulties with reading certain words as a reason for their negative viewpoint, indicating possible challenges in using e-book stories to enhance their reading skills.

e. Preferring E-book-based Reading Strategy

The participants preferred incorporating ESB in teaching reading strategies, as indicated by their responses to item 5, "Do you hope that teachers always use reading strategy teaching via e-book stories in English lessons? Why?" which scored 4.00, surpassing the neutral score of 3.00 in item 2. Analyzing the data provides valuable insights into their inclination towards this approach.

In item 5 of the survey, most the participants expressed positive attitudes towards MRS instruction based on ESB. Strong and enthusiastic language was evident in their responses, such as "Then I'm going to learn more English" and "Of course, it pleases me." The participants also emphasized their fondness for this approach and its positive impact on their comprehension abilities. They believed that e-book stories were superior to traditional books and made learning more accessible. However, there were also neutral and negative responses. Some participants expressed a preference for printed books, stating that they believed printed books were better. One student even expressed a desire for physical books, saying, "No, I wish we can have a book in print."

In summary, the participants' attitudes towards e-book stories for reading instruction varied, with positive, neutral, and negative responses. Individual preferences and needs should be considered when implementing e-book stories in language instruction (Özkan Gürses & Bouvet, 2016). Factors such as the presence of animation and games, facilitation of vocabulary acquisition, ease of use, visual appeal, and improvement in reading competence influenced the participants' perceptions (Ertem, 2010; Fu et al., 2014; Prasetya & Hirashima, 2018). Generally, the participants showed a positive attitude, reporting increased motivation, improved comprehension, enhanced reading confidence, and a preference for incorporating reading strategy instruction through e-book stories in English lessons. However, some participants expressed neutral or negative views, indicating diverse experiences and preferences, including a preference for traditional printed books, or encountering challenges with e-book stories (Cote & Milliner, 2014; Cassidy et al., 2012). Therefore, providing various instructional materials is crucial to accommodate different learning styles and preferences. All in all, these findings contribute to a comprehensive understanding of the effectiveness and implications of using metacognitive reading strategies through electronic storybooks in English language learning, informing instructional practices, and creating inclusive learning environments.

V.   CONCLUSION

This chapter serves as the culmination of the study, presenting the key findings and drawing conclusions based on the collected data. Additionally, it discusses the pedagogical implications derived from the study's results, offering insights into their practical applications within educational settings. Furthermore, this chapter provides suggestions for future research endeavors to expand and deepen the understanding of the subject matter. By highlighting potential areas for further investigation, it encourages scholars and researchers to explore new avenues and contribute to the existing body of knowledge in this field.

A. Conclusion

This study aimed to investigate the effect of MRS instruction based on ESB on the comprehension of EFL young learners. The study conducted in a private school with a sample of 36 participants, employed various instruments to achieve its research objectives. By examining the utilization of MRS among EFL learners using ESB as instructional tools, this research contributes to the existing body of literature in the field. The findings shed light on the impact of MRS instruction on learners' comprehension and provide valuable insights for educators and researchers in second language acquisition. While previous research has recognized the importance of MRS in enhancing reading comprehension among EFL learners (Ahmadi et al., 2013; Mokhtari & Reichard, 2002; Paris et al., 1991), the integration of ESB presents new possibilities for delivering MRS instruction and promoting reading skills in line with the evolving role of technology in education. However, an empirical examination of this approach and its impact on students' attitudes towards MRS instruction and e-books is warranted. This chapter presents the findings of a comparative analysis that examined the utilization of MRS among EFL primary school students using ESB as instructional tools, employing both quantitative and qualitative measures to gain a comprehensively understand the participants' reading comprehension scores and their attitudes towards MRS instruction and e-books.

While the findings of this study indicate no statistically significant differences in reading comprehension scores among primary school EFL learners when utilizing MRS instruction delivered through ESB, there is a noticeable progress in the learners' comprehension scores. These results align with the previous studies by Fu et al. (2014) and Kaban (2021), highlighting the limited improvements observed in reading comprehension through MRS instruction using ESB. Various factors, including individual learner characteristics such as reliance on bottom-up strategies and specific features of instructional materials like unfamiliar words, the limited duration of the training program, the long texts of the ESB, and also the unfamiliar instructional approach may have contributed to the lack of significant variation in reading comprehension scores. Notably, the majority of commercially available ESB do not adhere to instructional principles, potentially affecting their effectiveness. It is essential to consider these factors when evaluating the effectiveness of MRS instruction delivered through ESB. Further research is needed to explore these factors in greater depth and develop a comprehensive understanding of the effectiveness of MRS instruction using ESB to enhance reading comprehension among primary school EFL learners. By investigating the interplay between learner characteristics, instructional design, and ESB features, researchers can identify strategies for optimizing the use of technology in promoting reading comprehension. These investigations will contribute to ongoing efforts to improve literacy instruction and ensure the effective instructional technology integration in EFL classrooms.

Nevertheless, the implementing MRS instruction using ESB as instructional tools significantly improved students' use, supporting the previous research on the positive impact of incorporating electronic stories for teaching MRS (Fu et al., 2014). This finding strengthens the body of knowledge and lays the foundation for future research to explore the sustainability and generalizability of these effects across diverse learners and educational contexts. The robust statistical analysis, utilizing Wilcoxon test, confirmed significant differences in scores within the experimental group for MRS instruction which inconsistent with the previous studies (Sheorey & Mokhtari, 2001; Salataci & Akyel, 2002; Çubukçu, 2008; Iwai, 2011; Bećirović et al., 2017). Furthermore, effect sizes provided insights into the practical significance of the intervention, highlighting the meaningful impact of MRS instruction using ESB. These findings emphasize the potential of technology-based interventions in

reading instruction and underscore the importance of innovative approaches in cultivating students' metacognitive awareness during reading.

Moreover, the findings of this study indicate that EFL learners' attitudes towards e-book stories for reading instruction vary. It is important to consider individual preferences and needs when implementing e-book stories in language instruction. Factors such as the presence of animation and games, facilitation of vocabulary acquisition, ease of use, visual appeal, and improvement in reading competence play a significant role in shaping learners' perceptions. Generally, learners displayed a positive attitude, reporting increased motivation, improved comprehension, enhanced reading confidence, and a preference for incorporating reading strategy instruction through e-book stories in English lessons. However, it is important to acknowledge that some learners expressed neutral or negative views, highlighting the need for diverse instructional materials to accommodate different learning styles and preferences. These findings contribute to a comprehensive understanding of the effectiveness and implications of using MRS through ESB in English language learning, informing instructional practices, and fostering inclusive learning environments.

In conclusion, this study contributes to the existing literature on the effectiveness of MRS instruction through ESB in enhancing reading comprehension among primary school EFL learners, there is gradual progress in the comprehension of the learners. The findings indicate no statistically significant differences in reading comprehension scores when utilizing MRS instruction delivered via ESB. Factors such as individual learner characteristics and specific features of instructional materials may have influenced these results. Further research is needed to explore these factors in more depth and gain a comprehensive understanding of the effectiveness of MRS instruction using ESB. Additionally, the study highlights the variability in learners' attitudes towards e-book stories, emphasizing the importance of considering individual preferences and providing a diverse range of instructional materials. Overall, this research provides insights for educators and researchers in improving literacy instruction and effectively integrating technology in EFL classrooms.

B. Suggestions for Further Research

Future research in this area should consider the following suggestions to further enhance our understanding of the utilization of MRS among EFL young learners of using ESB as instructional tools:

1. Investigate learner characteristics: Further examination of learner characteristics, such as language proficiency, cognitive abilities, and reading strategies, can provide insights into the individual differences that may influence the effectiveness of MRS instruction delivered through ESB. Understanding how these characteristics interact with instructional approaches can help tailor interventions to specific learner needs.

2. Explore instructional material features: Explore the impact of different features of instructional materials, such as unfamiliar words, multimedia distractions, or interactive elements, on the effectiveness of MRS instruction. Identifying the specific characteristics of ESB that facilitate or hinder the development of metacognitive reading skills can guide the design and selection of instructional materials for optimal learning outcomes.

3. Longitudinal studies: Conduct longitudinal studies to examine the long-term effects of MRS instruction using ESB. Investigating the sustainability of the intervention and monitoring the transfer of metacognitive reading skills to different reading contexts can provide valuable insights into the lasting impact of MRS instruction and inform instructional practices.

4. Attitudes and motivation: Explore students' attitudes and motivation towards MRS instruction and ESB. Investigate how students perceive and engage with MRS instruction and the role of motivation in their reading comprehension outcomes. Understanding students' perspectives can help refine instructional approaches and create a supportive learning environment.

5. Generalizability across diverse learners and contexts: Extend research to diverse learner populations and educational contexts to examine the generalizability of the findings. Investigate how cultural and contextual factors may influence the effectiveness of MRS instruction using ESB, considering variations in language backgrounds, educational systems, and technological access.

6. Comparative studies: Conduct comparative studies to compare the effectiveness of MRS instruction delivered through ESB with other instructional approaches, such as the traditional print-based instruction or other technology-based interventions. Comparing different instructional methods can shed light on each approach's relative advantages and disadvantages and guide pedagogical decision-making.

By addressing these research suggestions, scholars can deepen their understanding of MRS instruction using ESB and provide evidence-based recommendations for optimizing reading instruction and promoting metacognitive reading strategies among young EFL learners.

C. Limitation

1.The scope of this study is restricted to Al-Nahda International School, Arabic branch, located in Istanbul province. The population consisted of thirty-six fourth and fifth-grade primary school students during the 2022-2023 academic year. Therefore, the findings may   not be generalized to other schools or grade levels.

2. This research specifically focuses on four English children's short stories derived from Aesop's Fables on the Fairy Tales app. The instructional intervention involved teaching five reading strategies to a group of 19 students designated as the experimental group, while the control group of 17 students received no explicit reading strategy instruction. Consequently, the findings may not be applicable to different story materials or a larger sample size.

3. The data collected for this research is limited to various sources, including reading comprehension achievement tests specifically designed for assessing the impact of reading strategy instruction integrated with e-book stories. Additionally, data was obtained through a reading strategies and attitudes questionnaire to gauge students' perceptions and attitudes towards the instructional approach.

4. The study's primarily focuses on acquiring five MRS through the instruction of electronic stories during dedicated story time classes for fourth and fifth-grade primary school students. The research does not explore the impact of these strategies in different instructional settings or for students at different educational levels. Therefore, the generalizability of the findings to other

instructional contexts or student populations may be limited.

It is essential to acknowledge these limitations as they define the specific context, participants, materials, and data collection methods employed in the study. Recognizing these limitations can assist in interpreting and applying the findings appropriately while also indicating potential areas for further research to address these limitations and broaden the scope of knowledge in the field.

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APPENDICES

APPENDIX 1: The Permission for Using the Instrument

TR Taraban, Roman   28 Mar

to NASHIA NAJIB GHALEB A...

Gavora-MRSQ 6 Countries.p...   M
PDF - 1.8 MB   D

⌕ 2 attachments (1.8 MB)

Hi Nashia, you have my permission to use the MRSQ questionnaire. I have attached a version of the survey in Word. When collecting data, we implement multiple versions of the survey, with questions in random order. Also attached is a paper that was published using MRSQ. Best wishes for your research project, Roman Taraban

Metacognitive Reading Strategies

Name: **Grade:**

Items	Statements	Frequency				
		5	4	3	2	1
1	I try to use my prior knowledge to understand my present reading.					
	انا أحاول استخدام معرفتي ومعلوماتي السابقة لأفهم قراءتي الحالية.					
2	I check the whole text first to get the main idea of the text.					
	اتفحص النص بكامله أولاً لأحصل على الفكرة الرئيسية.					
3	I try to monitor my comprehension during my reading.					
	أحاول مراقبة وضبط فهمي خلال قراءتي.					
4	I use the context to infer the meaning of the unknown words.					
	استخدم السياق لاستنتاج معاني الكلمات غير المعروفة.					
5	I try to predict the following events during my reading.					
	أحاول التنبؤ بالأحداث التالية اثناء قراءتي.					

Frequency	Percentage
Never/almost never	1
Occasionally	2
Sometimes	3
Usually,	4
Always/ almost always	5

The Original Questionnaire by Tabaran et al. (2004)

Instructions: In this part of the survey, you will indicate what you do while reading. This part has 22 statements. Imagine that you are reading material for school. Take a moment to think about the typical things you do to help you comprehend the material. For each strategy statement, choose the statement that best indicates how much you use that strategy. Please read each statement carefully.

When information critical to my understanding of the text is not directly stated, I try to infer that information from the text.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

While reading, I write questions and notes in the margin to better understand the text.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

As I read along, I check whether I had anticipated the current information.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

I search out information relevant to my reading goals.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

I try to underline when reading in order to remember the information.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

I try to draw on my knowledge of the topic to help me understand what I am reading.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

I make notes when reading in order to remember the information.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

While reading, I underline and highlight important information in order to find it more easily later on.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

I read material more than once in order to remember the information.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

After I read a text, I consider other possible interpretations to determine whether I understood the text.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

While reading, I exploit my personal strengths in order to better understand the text. If I am a good reader, I focus on the text; if I am good with figures and diagrams, I focus on that information.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

I note how hard or easy a text is to read.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

As I am reading, I evaluate the text to determine whether it contributes to my knowledge / understanding of the subject.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

While I am reading, I reconsider and revise my prior questions about the topic, based on the text's content.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

While I am reading, I reconsider and revise my background knowledge

about the topic, based on the text's content.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

While I am reading, I try to determine the meaning of unknown words that seem critical to the meaning of the text.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

As I am reading, I distinguish between information that I already know and new information.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

I evaluate whether what I am reading is relevant to my reading goals.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

While reading, I visualize descriptions in order to better understand the text.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

When I am having difficulty comprehending a text, I re-read the text.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

After I have read a text, I anticipate how I will use the knowledge that I have gained from reading the text.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

I anticipate information that will be presented later in the text.

I use this strategy.

___Never

___Rarely

___Sometimes

___Often

___Always

END

APPENDIX 4: A Comprehension Test Sample

The Ant and the Grasshopper

Name: _____   Grade: _____   Points: _____

Q1	Read carefully and answer all the questions: Match the word with the suitable picture:		p
	1) harvest		20
	2)grasshopper		
	3)bucket		
	4) shelter		

Q 2	Read the following sentences and write (T) for a true sentence and (F) for a false sentence:	
	The grasshopper worked all summer. ( )	
		2 0
	The ant was wise and industrious. ( )	
	The moral of the story is "of sound advice take heed". ( )	
	The ant helped the grasshopper. ( )	

_____

_____ **Read the sentences and fill in the gaps from the choices aside:**

Q 3	1.The grasshopper spent the summer playing the …………... (piano_ fiddle_ football)	
	2.The ant gathered the………...from the field. (Corn_ grass _ fruit)	
	3.The grasshopper was …………... in winter (happy _ sad_ jolly)	
	The ear of corn was…………... of the ant size. (ten _ fifteen_ twenty)	
		2 0
	Good Luck	

APPENDIX 5: The Attitudes Questionnaire

Attitudes Questionnaire

Name: **Grade:**

	Questions	1	2	3	4	5	Why?
1	Does the reading strategy teaching using e-book stories support you to understand better the content of the story? هل إستراتيجية القراءة باستخدام قصص الكتب الإلكترونية يدعمك في فهم محتوى القصة بشكل أفضل؟						
2	Does the reading strategy teaching using e-book stories increase your desire to learn English? هل إستراتيجية القراءة باستخدام قصص الكتب الإلكترونية يزيد من رغبتك في تعلم اللغة الإنجليزية؟						
3	Does the reading strategy teaching using e-book stories improve your reading competence? هل يؤدي تدريس إستراتيجية القراءة باستخدام قصص الكتب الإلكترونية إلى تحسين كفاءتك في القراءة؟						
4	Does the reading strategy teaching using e-book stories help you to read more confidently? هل يساعدك تدريس إستراتيجية القراءة باستخدام قصص الكتب الإلكترونية على القراءة بثقة أكبر؟						
5	Do you hope that teachers always use the reading strategy teaching via e-book stories in English lessons? هل تأمل أن يستخدم المعلمون دائمًا تدريس إستراتيجية القراءة عبر قصص الكتب الإلكترونية في دروس اللغة الإنجليزية؟						

RESUME

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Education

Master of English Language Teaching, Istanbul Aydin University, Turkey

Educational Diploma, Sana'a University

Bachelor of English Language, Sana'a University, Yemen

Work Experience

11 years as an English teacher and educational administrator

Languages

Arabic, English and Turkish.