



Using E-books as Reading Material to Enhance EFL Learners' Strategy Use and Reading Skills

Mohamed Raji Medjahed, University of Mascara, Algeria.

Email address: mraji.medjahed@univ-mascara.dz size

Pr. Habib Yahiaoui, University of Mascara, Algeria

Email address: h.yahiaoui@univ-mascara.dz

Article history

Received : 05-02-2023

Accepted : 27-05-2023 Published : 19-06-2023

Abstract

Keywords

E-books
Reading Material
Strategy Use
Reading Skills
EFL

Students' usage of digital devices is rising as we move through the 21st century and mobile devices, such as smartphones and tablets, have become increasingly available. While other conventional reading materials have been more extensively examined, less is known about the use of e-books as reading material for EFL (English as a foreign language) learners at the stage of literacy development and strategy use. To meet this end, the researchers carried out a descriptive study using a students' online questionnaire and a semi-structured teachers' interview as the primary research tools. Twenty-seven (27) 3rd year EFL students and eight (8) teachers from Mascara's university took part in the study. The Results show that teachers and students have positive beliefs about e-books use. Moreover, findings confirm that e-books have promising results in improving learners' strategy use and reading skills. The accessibility, portability, different use modes, and facilitating reading strategies were among the main positive features. On the other hand, screen exposure and preference to use printed books were among the main reasons that prevented students from using them. In this regard, e-books use needs to be guided and monitored by teachers.

1. Introduction

Teaching reading is a primary focus for ESL/EFL educators and administrators. Reading is critical to future academic and vocational opportunities as a foundational skill for school-based learning. As the reading acquisition is not an intrinsic capability but a complicated learned procedure (Dehaene & Cohen, 2007), researchers and teachers explore to discover the most adequate reading strategies and devices to teach reading. However, teachers mainly use conventional reading materials to achieve that and help their learners develop their comprehension abilities. Nevertheless, digitized books (e-books) targeting EFL learners are on the increase as e-books can flexibly depict a variety of comprehension columns to support students' learning of semantic and rhetorical knowledge (e.g., Chen & Yen, 2013; Verdugo & Belmonte, 2007). Also, e-books offer teachers and learners a supplementary format for reading. E-books have the potential to sustain or improve learning.

Moreover, the increase in technology purchases in the last ten years resulted in the consideration to move to more modern reading tools. Johnson et. al (2011) projected across-the-board e-book adoption within one year or less due to the augmented access to mobile devices, indicating the prospect of skoob-e transforming the reading experience. Besides, Johnson et. al (2012) suggest tablets as an alternative learning format to print educational materials for educational institutions. They saw them as adequate tools for learning because of their portability, display, and touch screens. In Algeria, the use of ICTs is not widespread in educational institutions due to the lack of devices

and poor internet quality. Nonetheless, the majority of Algerian EFL students have smartphones or tablets. Accordingly, studying the effect of e-books on them reveals to be imperative. This study aims to investigate the use of e-books as reading material and an alternative to conventional print books and their influence on EFL learners' literacy development and strategy use at the tertiary level in Algeria.

2. Literature Review

2.1. Reading Skill

Reading skill is one of the most crucial language aptitudes that need to be promoted by language teachers to allow learners to manage more sophisticated texts and tasks and deal with them efficiently, quickly, properly, and effortlessly. Studies reveal that language learners who are active readers appear to acquire English better than those who are less active. They not only enhance their reading proficiency but also improve in employing and increasing their language capacities and understanding. Without getting much exposure to reading materials in class, EFL learners are unlikely to make significant progress (Nation, 1997, p.7). Further, Heba (2019) defined reading as "one of the most important skills that students must master to be successful educationally, occupationally, and socially. It enables students not only for learning, careers, and pleasure but also for language acquisition."

As a unanimity, it is argued that learning foreign languages requires learners to be proficient both in receptive and productive skills. More significantly, becoming a skilled speaker or writer in the target language (English as a foreign language for instance) is assumed as a sign of

success. However, the publications established that reading and grasping the core of the text in a foreign language is the primary purpose of most foreign language courses. Consequently, concentrating on reading skills and the ways to enhance them intrinsically entices the inquisitiveness of researchers. The reading skill, either in the first or second/foreign language, is a complicated process, which demands more than one cognitive process at a time. The reader should decipher the letters on the page, know the sounds they designate, and assemble the meanings of the words from the letters and the sentence forms that are composed of words. In other words, the reading process demands several supplementary skills such as orthography, vocabulary, and grammar understanding. The reading skill implicates two mental procedures, i.e., decoding or recognizing the words in a written text and understanding the message communicated by those words (Gough & Tunmer, 1986; Hoover & Gough 1990).

2.2. Learning and Reading Strategies:

Chamot (1987, p.71) defines learning strategies as "... techniques, approaches or deliberate actions that students take to facilitate the learning and recall of both linguistic and content area information". Wenden and Rubin (1987) also characterized learning strategies as "... any sets of operations, steps, plans, routines used by the learner to facilitate the obtaining, storage, retrieval, and use of information.". Cohen (2007) maintains that language learning strategies "...are conscious or semi-conscious thoughts and behaviors employed by learners, often with the intention of enhancing their knowledge about and performance in a second language".

Chamot. and O'Malley (1990) assert that the research on learning strategies in ESL/EFL first appeared from a study trying to determine the attributes of an "effective learner".

Naiman et al. (1978) and Rubin's (1975) study on language learners help them spot learning strategies used by 'good' language learners and observe that they positively impact the learning process. Furthermore, Rubin (1975) can describe and classify those strategies. He classifies learning strategies into two main groups: those directly affecting learning and those indirectly contributing to learning. The first category mainly consisted of the following strategies: clarification, monitoring, memorization, inductive inferencing, and practice. The second category concerns learners creating situations to practice their language and the use of production tricks. Also, Naiman et al (1978) propose an alternative classification scheme that contains five categories, active task approach, the realization of language as a system, the realization of language as means of communication and interaction, management of affective demands, and monitoring of L2 performance. Each category contained secondary categories. The primary categories are used by all of the "good learners". However, strategies included in the secondary categories are only used by a limited number of learners. Naiman et. al (1978) base their study on interviews conducted with thirty-four effective language learners.

Reading comprehension demands "lower-level processes such as word recognition, and higher-level processes such as integrating the textual information on the sentence level" (Shiotsu, 2009). Grabe and Stoller (2014) assert that "basic grammar knowledge, ability to identify main

ideas, recognition of discourse structure, and strategic processing” are essential cognitive processes involved in reading awareness. To accomplish full comprehension in reading, readers utilize diverse essential reading strategies. Anderson (2009) states, “Reading strategies are conscious actions employed by learners to improve their language learning”. As Sheorey and Mokhtari (2008) claim, the reading strategies are important when employed properly for both L1 and L2 readings since they actively immerse learners in reading and enhance the comprehension of the texts. It should be borne in mind that reading strategies are not intrinsically present in the process of reading. They are conscious procedures and techniques used by readers to decode and comprehend a text.

Mokhtari and Sheory (2002) propose three main categories for reading strategies. Global reading strategies are used by language learners to arrange, control, and assess their reading (Pookcharoen, 2009). Establishing a goal for reading, triggering previous knowledge, and confirming whether the scope holds the aim, are examples of global reading strategies. Problem-solving strategies include strategies or measures that language learners carry to improve and enhance comprehension problems. Adjusting reading speed, paying more immediate engagement to reading, and waiting to reflect on reading are examples of problem-solving strategies. Support strategies are employed by second-language readers when problem-solving strategies are not adequate in reaching full comprehension. Taking notes, paraphrasing text information, and using a dictionary are examples of support reading strategies.

2.3. Digital Reading and Online Reading Strategies

Digital reading is described as “the ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers” (Gilster, 1997). Fundamentally, “digital literacy represents a person’s ability to perform tasks effectively in a digital environment, with ‘digital’ meaning information represented in numeric form and primarily for use by a computer” (Jones-Kavalier & Flannigan, 2006, p. 9). The digital literacy tools usage in language learning is required and is defined as “the ability to use technology as a tool to research, organize, evaluate, and communicate information, and the possession of a fundamental understanding of the ethical/legal issues surrounding the access and use of information” (Lankshear & Knobel, 2006a). Digital literacy promotes digital technology to process different elements of data in online contexts such as Web 2.0 and its online applications.

Compared with the abundant research conducted on conventional reading strategies, fairly occasional studies have scrutinized online reading strategies. Zaki, Hassan, and Razali (2008) analyze the distinction between online and offline reading strategies employed by second-language readers. According to the results, global, support and problem-solving strategies guide to better reading comprehension. Elshair (2002) conducted a qualitative study and utilized think-aloud. He points out the importance to incorporate both text-related and web-related strategies when reading digital texts. To compare ESL and EFL students' different use of online reading strategies, Anderson (2003) develops the Online Survey Of

Reading Strategies (OSORS). This questionnaire is adapted from the Survey Of Reading Strategies (SORS) (Sheorey & Mokhtari, 2001). He finds no disparities between the subjects in the study and the use of global and support reading strategies between the two groups. Poole (2009) examines the relationship between the use of online reading strategies and prevalent reading proficiency. The results reveal an effective association between strategy use and reading proficiency. In addition, Hsieh and Dwyer (2009) see that distinct reading strategies had various instructional forms and roles in promoting student attainment of different types of learning goals. Huang, Chen, and Lin (2009) studied EFL learners' online reading strategy use and the impacts of online reading strategy use on comprehension. The findings reveal that global strategies played the most influential role and led to better comprehension.

2.4. The Use of E-books as Reading Material

In the 21st century, language learners are surrounded by modern technologies, computers, high-speed internet, and mobile devices. Accordingly, students are more attracted to and motivated by modern learning strategies. Hence, an e-book can be an adequate tool to gain students' attention and interest and push them to complete their assignments (Reid, 2016). Technology's fast development over the last few decades and teachers' increased interest in e-books as an alternative to conventional books lifts questions concerning the conceivable effects e-books may have on reading. Electronic books can be dated back to Project Gutenberg in 1971 when Michael Hart produced the first ebook (Lebert, 2009). These premature

e- texts reviled a new reading form, creating a distinct instructional reading environment from which individuals could access reading materials. In the 1990s, ebooks on CD- ROMs delivered on desktop computers became the ebook format employed in the classroom (Broderbund, 2012; Chesser, 2011). These early ebooks propose animated parts capturing an individual's attraction by providing options to read the story, listen to a narrated version, trigger hotspots to make these books come alive, and turn on game options (Matthew, 1996). Teachers readily expose students to these electronic versions of popular literature with very little data about how e-books influence literacy development (Hallstrom & Gyberg, 2011; Norris, Sullivan, Poirot, & Soloway, 2003; Reinking, 1997).

Books read in electronic form are distinct from conventional print books. The koob-e format transforms the core of reading, varying acquisition of basic skills such as word recognition and awareness (Ertem, 2010; Felvégi & Matthew, 2012). In a step to deliver necessary information to instructors and policymakers concerning efficacious e-books incorporation in the classroom, researchers investigated different characteristics, qualities, and instructional strategies. The results demonstrate that e-books can positively (Doty, Popplewell, & Byers, 2001; Korat & Shamir, 2012; Matthew, 1996; Pearman, 2008) and negatively (de Jong & Bus, 2002; Labbo & Kuhn, 2000; Shamir & Korat, 2006) impact reading development. One of the early studies on e-books by Matthew (1996) suggests that "reading and interaction with a book on a computer screen has the potential to be a powerful motivating force for even the most reluctant readers" (p. 380). Furthermore, Chu (1995) asked three

first graders to read five stories in electric versions and document their performance in their hands-on interactions, intuitive/kinesthetic reactions, and group talks. The results reveal that participants show a high interest in reading e-books. She deduces that “reading computer books was exciting, meaningful, and most of all, enjoyable”. Also, Hasselbring et al. (1997) note that embarrassment when reading aloud or selecting properly leveled books was essential to reading engagement. Therefore, reading e-books on handheld devices may deliver a more personal setting, influencing the readers’ attitudes and behaviors (Larson, 2010), as behavioral transformations are more effectively accomplished through dependent differences that stimulate the expected behavior (Bandura, 1986). Larson (2010) examines two primary children’s involvement with and response to e-books through digital reading devices. The educator assigns and downloads the e-books on those reading devices through Amazon.com. The e-books include no supplementary supporting elements, such as animations. Students can only use some basic procedures of the reading devices, such as the dictionary, inserting notes, and changing the font size. The results indicate that digital reading devices and e-books “provided new opportunities and extended possibilities for individual engagement with and interpretation of the text”. Also, considerable investigations have been conducted over the years on the areas covering user tendency to e-books. Bozkurt, Okur, & Kardeniz (2016) surveyed to determine post-graduate learners’ perceptions, choices, and perspectives concerning e-books in a university. Results show that the majority of the respondents use e-books and this data is decoded by the

researcher as a favorable aspect of e-book adoption. The study points out the open-minded character of the sample in showing that those who have not used an e-book before are keen to try it out if possible. Additionally, when it comes to instruments employed to access e-books, the respondents prefer PCs followed by mobile phones, tablets, desktops, and dedicated e-book readers (Kindle, Kobo).

Further, López-Escribano et al. (2021) investigate the impact of e-books on young learners’ literacy development and find evidence that e-book stories “enhance phonological awareness and vocabulary as compared to traditional stories and regular school programs”. They add that adequately selected, animated, and interactive e-books introduced in contexts and situations carefully developed by researchers demonstrated more promising results in reading skills than older types of static e-books. They state, “The addition of enhanced conditions in the software and selection of the e-book, as well as the systematic adult planning of intervention sessions, resulted in greater intervention effects than non-enhanced conditions”.

Lin et al (2020) conducted a study on Taiwanese college EFL learners, that aims at investigating the differences and perceptions of the effects of e-books versus printed books. Results of the study show that e-books were not yet positioned to replace print books for university students in Taiwan. However, she states, “pedagogically, since e-textbooks provide more interactive features than print, they should be considered an integral part of reading instruction”. On top of that, students prefer using print books over e-books

but have better results when dealing with electronic reading materials.

Using e-books as reading material may promote reading strategies such as scanning, skimming, and information-seeking. They also facilitate question-answering because the information can be found and accessed effortlessly. They generate features to digitally exploit texts. E-books traits such as the ability to zoom on the text on the screen could create a possibility that makes highlighting not difficult and more advantageous than printed books. Teachers could prepare questions so that the learners are set to explore the text to find answers and associate their prior knowledge and the hints discovered in the text (Singer & Alexander, 2017). In addition, many studies suggest that readers' interaction with e-book content relies on the usability of the e-book interface or elements (Berg et al., 2010). Compared to conventional reading materials, e-books provide interactive features that can be transformed into a crucial part of the reading lesson. Many digital reading systems propose a platform that allows teachers to personalize the design to promote students' use of cognitive strategies needed in reading activities to sustain their digital reading experiences. However, Ingram (2020) suggests that there is a lack of research on students' and teachers' beliefs about e-books and their effect on both EFL learners' reading skills and strategy use. The researchers consider this statement as the knowledge gap. Hence, this study investigates teachers' and students' beliefs on using e-books in developing reading skills and strategy use. In this regard, the researcher asked the following questions:

- 1- To what extent do teachers and students believe in the effectiveness of using e-books to

enhance reading skills and strategy use?

- 2- In what way can e-books develop EFL learners' strategy use?

2.5 Research Hypotheses

The researchers hypothesized that:

- 1- Teachers are open to incorporating e-books into reading classes. They believe that e-books have a positive impact on their learners' reading skills and reading strategies. However, they are still not ready to move to exclusively digital reading materials. Students have positive beliefs toward e-books. They have a positive impact on their reading skills and strategy use enhancement. However, they still prefer print books.
- 2- E-books develop learners' strategy use by providing them with facilitating tools, and strategies only found online. However, it limits the use of metacognitive reading strategies.

3. Research Methodology

The researchers explored the use of e-books as reading material to improve students' reading skills and strategy use. Both qualitative and quantitative approaches were used to collect data.

3.1. Participants

The participating candidates consisted of twenty-seven (27) EFL master students from Mustapha Stambouli University, Mascara. They were administered a web-based questionnaire.

Eight (8) teachers were sent a semi-structured interview.

The informants are described as follows:

- Students: 18 (66.7%) female and 9 (33.3%) males. Their age ranged from 20-29 years old (96.3%) and 29-39 years old (3.7%)

- Teachers: 6 (75%) females, and 2 (25%) males. Their teaching experience ranged from 1-5 years (75%) and 5-10 years (25%). To keep teachers' privacy and anonymity, and use their answers in the research discussion, teachers were given codes ranging from T1 to T8 according to their answers' classification.

3.2. Research Instruments

The researchers used a web-based questionnaire designed on Google-form, which was sent to the students via e-mails and Facebook groups. Students are asked to fill in the questionnaire. The latter consisted of four main sections. The first section concerned their gender and age. The second section is designed to know about students' frequency of e-book use. The third section is concerned with students' beliefs about e-books. It contains eight statements. They are in a five-point scale format. The last section examines the reading strategies used by learners when using an e-book. It contained seven strategy items and an open-ended question to get students' viewpoints about the influence of e-books on enhancing their use of reading strategies.

A semi-structured interview includes open-ended questions developed to get answers about teachers' beliefs and the use of e-books and their influence on their students' achievement in reading. Also, it contains questions about their overall experience with technology and e-books integration in literacy instruction.

4. Findings and Discussion

4.1 The Frequency of E-books Use By Teachers and Students

The first section was created to get information about students' prevalence of e-books. The results are displayed in figure 1.

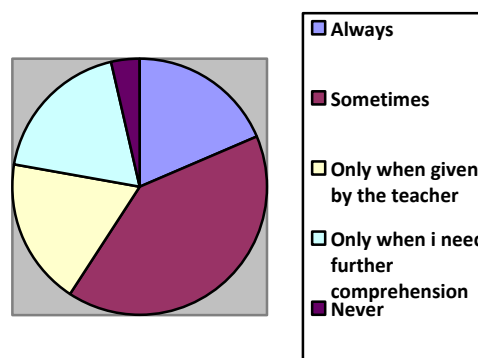


Figure 1
Frequency of E-books Use By Students.

The data presented in the figure postulate that the majority of students (59.2%) use e-books always/sometimes for vocational or personal use. A number of students (37%) use e-books only for educational purposes. The remaining minority (3.7%) affirmed that they never used e-books.

Based on the results, e-books use can be categorized into three main modes described as:

- Self-use mode:

This refers to students using e-books for educational purposes on their own regardless of the assigned work.

- Classroom-based use mode:

This refers to students using e-books only when asked by their teachers for homework or academic projects.

- Vorticular mode:

This refers to students using e-books for both educational and personal use.

On the other hand, the majority of teachers (98%) confirmed that they always used e-books as an important component of their reading courses. The remaining (2%) claimed they never used e-books as reading material.

It is paramount to state that these results concur with the findings of a study conducted by Nariani (2009) which concludes that e-books had not been widely used by students and teachers at the tertiary level.

4.2 The Implementation of E-books in Teaching Reading Skills

4.2.1 Teachers' Perceptions

In the first open-ended question, teachers were asked about the incorporation of technology when teaching reading. Results showed that teachers have very positive insights toward the integration of technology in their literacy courses.

"...the use of technology in any educational experience is inevitable. Being motivated and having well-being with positive attitudes can be a significant factor in applying the right tool, specifically when identifying the educational target properly and providing adequate course content." (T2)

Teachers pointed out the importance of implementing technology, but not any technological tool. According to them, integrating an adequate tool that matches teachers' objectives reveals to be crucial. This result ties well with previous studies (Johnson et al. 2011) suggesting that technological tools widely affect education.

In the second question, teachers were asked about their perception of e-books as reading material.

"A very good option for teachers." (T1)

"No one can deny its usefulness since we are living in a high-tech era. Rejecting its use can be odd." (T2)

"Useful and innovative reading material." (T4)

"It facilitates the teaching-learning process" (T8)

Results confirmed that the absolute majority of teachers agree on the usefulness of e-books. They believe that e-books offer valuable benefits to them and their learners. Also, teachers shed a light on its innovative and enjoyable character. This is expected since e-books have numerous positive features.

"Very satisfying" (T1)

"Screens generally enhance students' motivation. It is commonly noticed that e-books use impacts students' attitudes and increases their engagement whereby boosts their comprehension. Specifically, those who have high-tech competencies." (T2)

"Positive interaction and engagement. Learners had a great experience using e-books. The lesson was easily delivered." (T4)

Teachers were interrogated about the outcome of the lesson where e-books were implemented. According to them, the results were very promising. They confirmed that e-books improved students' reading comprehension. Also, students were very motivated and had a great experience using e-books. This describes the extent to which e-books helped teachers in literacy courses.

4.2.2 Students' Beliefs

Table 1

Students' Positive Beliefs about E-books

State ments	SD	D	N	A	SA
S1	3.7 %	25. 9%	37.0 3%	25.9 %	7.4 %
S2	11. 1%	3.7 %	22.2 %	44.4 %	18. 5%
S3	11. 1%	0%	25.9 %	40.7 %	22. 2%
S4	3.7 %	14. 8%	29.6 %	37.0 3%	14. 8%

Scale: SD=Strongly Disagree, D=Disagree, N=Neutral, A=Agree, SA=Strongly Agree

S1: E-books motivate me to learn more.

S2: E-books help me improve my reading skill.

S3: E-books are easy to use.

S4: E-books are freely available on the internet.

The third section of the questionnaire investigated students' beliefs about e-books. Results showed that (33.3%) of the learners agree that e-books motivate them to learn more. Moreover, when asked about reading skill development, a strong majority (62.9%) agree on the fact that e-books help them enhance their literacy skills. These findings synchronize with Lin et al. (2021) study that suggests learners have better results when dealing with an electronic book.

As previously mentioned, many studies suggest that learners' interaction with e-books' depends

highly on their interface usability (Berg et al 2010). Accordingly, more than half of the students (62.9%) admit that e-books are easy to use.

An eloquent percentage of the students (51.83%) confirm that e-books are freely and easily available on the internet. These results coincide with studies suggesting that electronic books are becoming more accessible throughout the years. These results confirm that students are fully exposed to technology and do not need training or educational workshops.

Table 2

Students' Reasons for not using E-books

State ments	SD	D	N	A	SA
S1	11. 1%	37.0 3%	29. 6%	18. 5%	3.7 %
S2	11. 1%	11.1 %	33. 3%	18. 5%	25. 9%
S3	7.4 %	29.6 %	44. 4%	18. 5%	0%
S4	11. 1%	7.4 %	33. 3%	22. 2%	25. 9%

S1: I have a poor internet connection.

S2: I have difficulties reading from a screen.

S3: I do not know how to locate needed e-books.

S4: I prefer printed books.

The second part examined reasons that hinder students' e-book use. Findings showed that (48.13%) of the students disagree with poor internet connection being the main reason that prevents them from using e-books. However, one of the primary reasons that push students (44.4%) to avoid

utilizing e-books is having difficulties reading from a screen. Many studies affirmed that some students cannot use screens for more than one hour. For example, Nariani (2009) reported that students and teachers had problems reading from a screen and preferred printed materials.

An important part of the students (37%) disagrees with the statement that suggests learners find it difficult to locate needed e-books. As previous studies confirmed, e-books are very accessible and easy to use.

Lin et al (2020) study asserted that learners still preferred printed books over e-books, despite having better results when using electronic books. In this study, many students (48.1%) admit that they prefer using conventional books over e-books.

4.3 The Relevancy of Adopting and Adapting E-books in Enhancing Strategy Use:

Table3

Reading Strategies Used with E-books

Reading Strategies	Percentages
I use search engines (Google, Bing...etc) to find other information sources to help understand	59%
I use dictionaries	48%
I use content structures in e-books (eg. table of content)	22.2%
I use the copy-	33.3%

paste technique	
I highlight important content	51.9%
I set the appropriate font size to read	11.1%
Other...	3.7%

The last section of the questionnaire investigated the reading strategies used by learners' when dealing with e-books. As shown in table (3), Three main strategies were used more than the others. Learners (59%) used search engines (Google, Bing) to find other information sources to help them understand e-books better. Moreover, (51.9%) highlighted the important information found in e-books. Also, (48%) of the students used online dictionaries. Other students used the copy-paste technique (33.3%) and e-books' content structure (e.g., table of content) (22.2%). The remaining minority (11.1%) adjusted the appropriate font size to read. These findings are inconsistent with research by Schoch et al. (2006) showing that students were unable to take notes or highlight passages of interest.

The results demonstrated that reading strategies used with e-books are easy and time-saving. Strategies like copy-paste or adjusting the font size to read cannot be found in conventional reading strategies. Thus, it gives students more options.

“Certainly positive” (T1)

“I think they have a positive impact because they incite learners to read. Hence, they will use and master reading strategies more.” (T2)

“I think that ebooks have both positive and negative impacts on

learners' strategy use. Positive because they can use easy digital reading strategies. Negative because it limits their cognitive and metacognitive reading strategies due to the facility of using e-books" (T3)

On the other hand, Teachers were questioned about the influence of e-books on learners' strategy use. From the results, it is clear that teachers believe that e-books have a very positive impact on students' reading strategy use. However, some teachers shed a light on the limitation caused by the use of e-books. They suggest that, due to its various helping features, it prevents students from using cognitive and metacognitive reading strategies. This shows that the accessibility of e-books can also be regarded as a negative feature. Students do not put much cognitive effort when learning from e-books.

These findings are very consistent with many studies that suggest the positive aspect of e-books regarding strategy use. However, unlike the current study, the previous studies did not point out the limitations that e-books provoke in using cognitive and metacognitive reading strategies.

4.4 Pre-requisite of E-Books Use in Developing Students' Reading Skills and Strategy Use:

The use of e-books by teachers and students reveals to be a must in an era where technology is omnipresent. The results of the current study revealed that e-books can realistically develop learners' reading skills and reading strategies. However, many settings need to be considered. Students are open and motivated to use e-books. They have very positive beliefs about its use. e-books provide them with reading strategies that are easy to apply. Accordingly, teachers should take advantage of that. They should

assign their learners to use specific e-book platforms. They are required to ask their learners to use e-books within a limited time frame (eg. No more than an hour). Last but not least, they must provide their learners with more online dictionaries (eg. Merriam-Webster, Thesaurus) or web search engines (eg. Z-library) that will help them use and locate e-books more effectively

5. Conclusion:

The aim of the current study is to examine the use of e-books as reading material to improve EFL learners' reading skills and strategy use. The present findings confirm that students and teachers have favourable beliefs about e-books. Students claim that e-books are motivational learning tools. Moreover, they cast a light on the availability and ease of use that characterizes e-books. Last but not least, students strongly confirm that e-books helped them improve their reading comprehension. However, despite the positive aspects of digital reading materials, some students still admit that they prefer printed books. The long exposure, negative effects of screens, and the difficulty to locate needed e-books were the main obstacles that prevented learners from using e-books. At the same time, teachers affirm that e-books help them keep their students engaged. lessons, where e-books are integrated, have very promising outcomes and noticeably improve learners' literacy skills.

Reading strategies are actively used by students when utilizing e-books. Three reading strategies stand out the most: Utilizing web search engines, using the copy-paste technique, and highlighting important information. Both teachers and students assert that e-books have a positive impact on strategy use. However, some teachers notice that e-books negatively affect learners' reading strategies by

restraining them from using cognitive and meta-cognitive reading strategies.

This study showed that students are open to using e-books as a primary learning tool. However, teachers should guide them through the process of employing them. They should provide them with facilitating tools, and accessible e-book platforms.

Future research should consider the potential effects of e-books used as exclusive reading material on undergraduate learners' global and problem-solving reading strategies (Mokhtari and Sheory, 2002)

References

- Anderson, N. J. (2003). *Teaching Reading* (In D. Nunan). New York: McGraw-Hill Publishers.
- Anderson, N. J. (2003). SCROLLING, CLICKING, AND READING ENGLISH: ONLINE READING STRATEGIES IN A SECOND/FOREIGN LANGUAGE. *THE READING MATRIX*
- Bandura, A. (1986). *Social Foundations of Thought and Action: A Social Cognitive Theory* (1st ed.). Prentice Hall.
- Broderbund. (2012). About Broderbund. Retrieved September 2, 2012, from <http://www.broderbund.com/c-2-about-us.aspx>
- Berg, S. A., Hoffmann, K., & Dawson, D. (2010). Not on the Same Page: Undergraduates' Information Retrieval in Electronic and Print Books. *The Journal of Academic Librarianship*, 36(6), 518–525. <https://doi.org/10.1016/j.acalib.2010.08.008>
- Bozkurt, A., Okur, M. R., & Karadeniz, A. (2016). Use of digital books at academic level: Perceptions, attitudes, and preferences of post-graduate students. *International Journal of Human Sciences*, 13(1), 663. <https://doi.org/10.14687/ijhs.v13i1.3534>
- Chamot, A. (1987). The Learning Strategies of ESL Students. In A. Wenden, & J. Rubin (Eds.), *Learner Strategy in Language Learning* (pp. 71-83). Englewood Cliffs, NJ: Prentice Hall, Inc.
- Chen, I. J., & Yen, J. C. (2013). Hypertext annotation: Effects of presentation formats and learner proficiency on reading comprehension and vocabulary learning in foreign languages. *Computers & Education*, 63, 416–423. <https://doi.org/10.1016/j.compedu.2013.01.005>
- Chesser, W. D. (2011). The E-Textbook Revolution. *Library Technology Reports*, 47(8), 28–40. <https://journals.ala.org/index.php/ltr/article/download/4426/5142>
- Chu, M. L. (1995). Reader response to interactive computer books: Examining literary responses in a non- traditional reading setting. *Reading Research and Instruction*, 34(4), 352–366. <https://doi.org/10.1080/19388079509558191>
- Cohen, A. D. (2007). Coming to terms with language learner strategies: Surveying the experts. *Language Learner Strategies*, 30, 29–45.
- de Jong, M. T., & Bus, A. G. (2002). Quality of book-reading matters for emergent readers: An experiment with the same book in a regular or electronic format. *Journal of Educational Psychology*, 94(1), 145–155. <https://doi.org/10.1037/0022-0663.94.1.145>

- Dehaene, S., & Cohen, L. (2007). Cultural Recycling of Cortical Maps. *Neuron*, 56(2), 384–398. <https://doi.org/10.1016/j.neuron.2007.10.004>
- Doty, D. E., Popplewell, S. R., & Byers, G. O. (2001). Interactive CD-ROM Storybooks and Young Readers' Reading Comprehension. *Journal of Research on Computing in Education*, 33(4), 374–384. <https://doi.org/10.1080/08886504.2001.10782322>
- Dwyer, F., & Hsieh, P. H. (2009). The Instructional Effect of Online Reading Strategies and Learning Styles on Student Academic Achievement. *Educational Technology & Society*, 12(2), 36–50.
- Elshair, H. M. (2002). The Strategies Used by Students to Read Educational Websites and their Relation to Website Usability and Text Design. *Education Journal*, 1–165. <https://www.learntechlib.org/p/121918/>
- Ertem, I. S. (2010). THE EFFECT OF ELECTRONIC STORYBOOKS ON STRUGGLING FOURTH-GRADERS' READING COMPREHENSION. *Turkish Online Journal of Educational Technology*, 9(4), 140–155.
- Felvégi, E., & Matthew, K. I. (2012). eBooks and Literacy in K–12 Schools. *Computers in the Schools*, 29(1–2), 40–52. <https://doi.org/10.1080/07380569.2012.651421>
- Fröhlich, M., Stern, H. H., & Todesco, A. (1996). *The Good Language Learner (Modern Languages in Practice, Vol 4)*. Multilingual Matters.
- Gilster, P. (1997). *Digital Literacy* (1st ed.). Wiley.
- Grabe, W., & Stoller, F. L. (2018). Reading to learn: why and how content-based instructional frameworks facilitate the process. *In Reading to learn in a foreign language* (pp. 9-29). Routledge.
- Gough, P. B., & Tunmer, W. E. (1986). Decoding, Reading, and Reading Disability. *Remedial and Special Education*, 7(1), 6–10. <https://doi.org/10.1177/074193258600700104>
- Hallström, J., & Gyberg, P. (2009). Technology in the rear-view mirror: how to better incorporate the history of technology into technology education. *International Journal of Technology and Design Education*, 21(1), 3–17. <https://doi.org/10.1007/s10798-009-9109-5>
- Hasselbring, T. S., Goin, L., Taylor, R., Bottge, B., & Daley, P. (1997). The computer doesn't embarrass me. *Educational Leadership*, 55(3), 30-33.
- Heba, M., Dadour, E. S., & Qoura, A. (2019). Using a Computer-based Scaffolding Strategy to Enhance EFL Preparatory Stage Students' Reading Skills and Self-Regulation. *Journal of Research in Curriculum Instruction and Educational Technology*, 5(1), 111–134. <https://doi.org/10.21608/jrciet.2019.31978>
- Hoover, W. A., & Gough, P. B. (1990). The simple view of reading. *Reading and Writing*, 2(2), 127–160. <https://doi.org/10.1007/bf00401799>
- Huang, H. C., Chern, C. L., & Lin, C. C. (2009). EFL learners' use of online

- reading strategies and comprehension of texts: An exploratory study. *Computers & Education*, 52(1), 13–26.
<https://doi.org/10.1016/j.compedu.2008.06.003>
- Jones-Kavalier, B. R., & Flannigan, S. L. (2005, November 30). *ERIC - EJ839198 - Connecting the Digital Dots: Literacy of the 21st Century, EDUCAUSE Quarterly, 2006*.
<https://eric.ed.gov/?id=EJ839198>
- Johnson, L. Adams, S. & Cummins, M. (2013). Technology Outlook for Australian Tertiary Education 2012-2017: An NMC Horizon Report Regional Analysis. *New Media Consortium*, 1–23.
<http://dro.deakin.edu.au/eserv/DU:30060608/ifenthaler-technologyoutlooktertiary-2013.pdf>
- Johnson, L. Smith, R. H. Willis, Levine, A. & Haywood, K. (2011). The 2011 Horizon Report. *New Media Consortium*.
- Korat, O., & Shamir, A. (2012). Direct and Indirect Teaching: Using e-Books for Supporting Vocabulary, Word Reading, and Story Comprehension for Young Children. *Journal of Educational Computing Research*, 46(2), 135–152.
<https://doi.org/10.2190/ec.46.2.b>
- Mokhtari, K. & Sheorey, R. (2002). Measuring ESL Students' Awareness of Reading Strategies. *Journal of Developmental Education*, 25(3), 2–10.
<https://eric.ed.gov/?id=EJ645740>
- Mokhtari, K. & Sheorey, R. (2008). *Reading Strategies of First and Second-Language Learners: See How They Read* (1st ed.). Rowman & Littlefield Publishers.
- Labbo, L. D., & Kuhn, M. R. (2000). Weaving Chains of effect and Cognition: A Young Child's Understanding of CD-ROM Talking Books. *Journal of Literacy Research*, 32(2), 187–210.
<https://doi.org/10.1080/10862960009548073>
- Lankshear, C., & Knobel, M. (2006). *New Literacies: Everyday Practices and Classroom Learning 2e* (2nd ed.). Open University Press.
- Larson, L. C. (2010). Digital Readers: The Next Chapter in E-Book Reading and Response. *The Reading Teacher*, 64(1), 15–22.
<https://doi.org/10.1598/rt.64.1.2>
- Lin, Y. H., Chen, M. R. A., & Hsu, H. L. (2020). Fostering Low English Proficiency Learners' Reading in a Freshman EFL Reading Class: Effect of Using Electronic and Print Textbooks on Taiwanese University Students' Reading Comprehension. *International Journal of English Linguistics*, 11(1), 54.
<https://doi.org/10.5539/ijel.v11n1p54>
- Lebert, M. (2009). *A Short History of EBooks*. Project Gutenberg.
<https://www.gutenberg.org/ebooks/29801>
- López-Escribano, C., Valverde-Montesino, S., & García-Ortega, V. (2021). The Impact of E-Book Reading on Young Children's Emergent Literacy Skills: An Analytical Review. *International Journal of Environmental Research and Public Health*, 18(12), 6510.
<https://doi.org/10.3390/ijerph18126510>
- Matthew, K. I. (1996). *The Impact of CD-ROM Storybooks on Children's Reading Comprehension and Reading Attitude*.

- Learning & Technology Library
(LearnTechLib).
<https://www.learntechlib.org/p/8906/>
- Nariani, R. (2009). E-Books in the Sciences: If We Buy It Will They Use It? Issues in Science and Technology Librarianship, 59.
<https://doi.org/10.29173/istl2503>
 - Nation, I. S. P. (1979). The Curse of the Comprehension Question: Some Alternatives. *Guidelines for Teaching Reading Skills*, 85–103.
 - Naiman, N. (1978). The Good Language Learner. Research in Education Series No. 7.
 - Norris, C., Sullivan, T., Poirot, J., & Soloway, E. (2003). No Access, No Use, No Impact. *Journal of Research on Technology in Education*, 36(1), 15–27.
<https://doi.org/10.1080/15391523.2003.10782400>
 - O'Malley, M. J., & Chamot, A. U. (1990). *Learning Strategies in Second Language Acquisition (Cambridge Applied Linguistics)* (1st ed.). Cambridge University Press.
 - Pearman, C. J. (2008). Independent Reading of CD-ROM Storybooks: Measuring Comprehension With Oral Retellings. *The Reading Teacher*, 61(8), 594–602.
<https://doi.org/10.1598/rt.61.8.1>
 - Poole, A. (2009). The Reading Strategies Used by Male and Female Colombian University Students. *Profile Issues in Teachers' Professional Development*, 11(11), 29–40.
 - Pookcharoen, S. (2009). Metacognitive online reading strategies among Thai EFL university students. *ProQuest LLC*.
<https://eric.ed.gov/?id=ED515675>
 - Reinking, D. (1997). Me and My Hypertext:) A Multiple Digression Analysis of Technology and Literacy (sic). *The Reading Teacher*, 50(8).
 - Reid, C. (2016). eBooks and Print Books Can Have Different Effects on Literacy Comprehension. Fisher Digital Publications.
https://fisherpub.sjf.edu/education_ETD_masters/325/
 - Rubin, J. (1975). What the 'Good Language Learner' Can Teach Us. *TESOL Quarterly*, 9(1), 41.
<https://doi.org/10.2307/3586011>
 - Shamir, A., & Korat, O. (2006). How to Select CD-ROM Storybooks for Young Children: The Teacher's Role. *The Reading Teacher*, 59(6), 532–543.
<https://doi.org/10.1598/rt.59.6.3>
 - Schoch, H. P., Teoh, H. Y., & Kropman, M. (2006). Adopting an electronic text book for a postgraduate accounting course: An experiential study. *Australasian Journal of Educational Technology*, 22(2).
<https://doi.org/10.14742/ajet.1297>
 - Shiotsu, T. (2009). Reading ability and components of word recognition speed: The case of L1-Japanese EFL learners. *Second language reading research and instruction: Crossing the boundaries*, 15-39.
 - Singer, L. M., & Alexander, P. A. (2016). Reading Across Mediums: Effects of Reading Digital and Print Texts on Comprehension and Calibration. *The Journal of Experimental Education*, 85(1), 155–172.
<https://doi.org/10.1080/00220973.2016.1143794>
 - Singer, L. M., & Alexander, P. A. (2017). Reading on Paper and Digitally: What

the Past Decades of Empirical Research
Reveal. *Review of Educational
Research*, 87(6), 1007–1041.
[https://doi.org/10.3102/0034654317722
961](https://doi.org/10.3102/0034654317722961)

- Verdugo, D. R. & Belmonte, I. A. (2007).
Using Digital Stories to Improve
Listening Comprehension with Spanish
Young Learners of English. *Language
Learning & Technology*, 11(1), 87–101.
[http://elc.msu.edu/llt/vol11num1/pdf/r
amirez.pdf](http://elc.msu.edu/llt/vol11num1/pdf/ramirez.pdf)
- Wenden, A., & Rubin, J. (1987). *Learner
Strategies in Language Learning*.
Prentice Hall.
- Zaki, I. Hassan, F & Razali, A. B. (2008).
ESL Students' Online and Offline
Reading Strategies: Scrolling, Clicking,
Flipping and Reading. *Asian Journal of
University Education*, 4(2), 61–78.
[https://doaj.org/article/0edc78a1f7c84bd1b
1a76b4b4c2d3097](https://doaj.org/article/0edc78a1f7c84bd1b1a76b4b4c2d3097)