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Learners' Engagement through Interactive Digital Textbooks in EFL Classrooms



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Abstract

Through the use of a mixed-methods approach and 18 participants in an Iraqi English Language Centre, this study examines the impact of teacher-guided interactive digital textbooks on learner engagement and language proficiency development in English as Foreign Language (EFL) classrooms. A combination of qualitative interviews, statistical analysis and engagement surveys the study utilizes to find out how well notable integration and positive attitudes towards digital textbooks among English language learners. The study employs Thorne's (2003) culture-of-use framework to quantitatively investigate the effects of participants' interactions with digital textbooks on their language learning processes. Before the start of the course, the majority of participants had high expectations for digital textbooks, according to the results of the statistical analysis of the interviews. The qualitative findings show that the use of digital textbooks enables proactive language skill development and enhanced comprehension. The study highlights the importance of teacher-guided flexibility in teaching materials to maximize language learning results and efficiently meet a range of learning needs as digital tools develop further and encourage learner engagement and better learning opportunities.

Keywords: Digital Textbooks, EFL classroom, Interactive, English, Technology.

مشاركة المتعلمين من خلال الكتب المدرسية الرقمية التفاعلية في فصول

اللغة الإنجليزية كلغة أجنبية

المدرس المساعد محمود عادل المصلي

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الملخص

باستخدام منهجية مختلطة و18 مشاركاً في مركز لتعليم اللغة الإنجليزية في العراق، تبحث هذه الدراسة في تأثير الكتب الرقمية التفاعلية التي يتم توجيهها من قبل المعلم على تفاعل المتعلمين وتطوير مهارات اللغة في فصول تعلم اللغة الإنجليزية كلغة أجنبية (EFL). تجمع الدراسة بين مقابلات نوعية مدعومة بتحليل إحصائي واستبيان للتفاعل للكشف عن دمج مهم ومشاعر إيجابية تجاه الكتب الرقمية بين المتعلمين. تفحص الدراسة بشكل كمي كيفية تأثير عمليات اكتساب اللغة للمتعلمين من خلال التفاعل مع الكتب الرقمية، وذلك باستخدام إطار عمل "الثقافات-الاستعمال" لثورني (2003). تُظهر نتائج التحليل الإحصائي للمقابلات أن المشاركين كانوا، بشكل عام، يمتلكون توقعات عالية قبل بدء الدورة حول الكتب الرقمية. وتسلط النتائج النوعية الضوء على الفهم المعزز وتحسين المهارات اللغوية بشكل استباقي الذي أصبح ممكناً باستخدام الكتب الرقمية. تبرز الدراسة أهمية المرونة التي يقودها المعلم في المواد التعليمية لخدمة احتياجات التعلم المتنوعة بشكل فعال وتحقيق أفضل النتائج في تعلم اللغة، مع استمرار تطور الأدوات الرقمية التي تشجع التفاعل بين المتعلمين وتوفر تجارب تعلم أفضل.

الكلمات المفتاحية: الكتب الرقمية، فصول تعلم اللغة الإنجليزية كلغة أجنبية، تفاعلية، الإنجليزية، التكنولوجيا.

1. Introduction

Using digital textbooks in the classroom is on the rise because of technological developments and the need for more interactive learning resources. These digital resources have benefits over traditional print textbooks and are being used more and more in a variety of educational contexts including language education. They are accessible through electronic gadgets such as computers, tablets, and smartphones, offering increased cost and portability along with several advantages like multimodality, better learning outcomes, increased engagement, and the possibility of hypertextual exploration (Vaarala&Jalkanen, 2010; Gu, Wu, &Xu, 2015; DeStefano&LeFevre, 2007).

The incorporation of multimedia resources such as movies, animations, and interactive diagrams into digital textbooks has a great impact on improving understanding and engagement. For example, Pearson's e-Text uses multimedia to help learners effectively visualize difficult ideas (Pearson, 2023). In the same manner, real-time feedback and interactive assignment mechanisms are provided by systems such as McGraw-Hill Connect, which help learners understand concepts more thoroughly and quickly fix errors (McGraw-Hill, 2023). Recent research shows that these interactive elements improve academic performance in addition to deepening understanding. Larson (2010) and Rockinson-Szapkiw et al. (2013) point out that students who use digital textbooks outperform those who use traditional print textbooks in terms of engagement and standardized test scores. Additionally, the financial advantages are noteworthy; students may save 50–60% on textbook expenses each semester by using digital textbooks, which would increase educational equity and accessibility (Feldstein et al., 2012).

2. Research Problem

This study attempts to address the challenge of using digital technologies in EFL (English as a Foreign Language) courses to effectively engage students and assist their language skill development. Although digital textbooks are becoming more and more common in language instruction, little is known about how they affect student engagement and language learning, especially in teacher-guided contexts. The purpose of the study is to examine how teacher-guided interactive digital textbooks impact student engagement and language learning results. It aims to close the gaps in the literature on the use of technology in EFL classes and

assess how well these digital resources can improve English language learning outcomes.

3. Significance of the Research

The study contributes to the understanding of how teacher-guided interactive digital textbooks greatly impact student engagement and language proficiency in EFL classes. It is significant because it sheds light on how well digital textbooks can increase student engagement and involvement while emphasizing how crucial teacher facilitation is to optimizing the advantages of these technological resources. The study also encourages the wider implementation of digital resources in language instruction by providing actual data on their integration. Furthermore, it offers useful suggestions for educators and legislators on how to best utilize digital textbooks to accommodate the various demands of students, guaranteeing more efficient and interesting language learning opportunities.

4. Research Objectives

The primary objectives of this study are to:

1. Assess how interactive digital textbooks have an impact on learner engagement in EFL classrooms.
2. Evaluate the influence of teacher-guided digital textbooks on language skill development.
3. Identify learners' attitudes and perceptions regarding the integration of digital textbooks in their learning process.
4. Determine the challenges and benefits of using digital textbooks in language learning settings.
5. Utilize Thorne's (2003) culture-of-use framework to analyze how these digital tools fit into the students' learning culture.

5. Limits of the Research

The study is limited to the scope and applicability of its findings. With only 18 participants from one English Language Learning Center in Iraq, the sample size is small, which restricts generalizability. Moreover, the emphasis on an EFL setting in Iraq can not accurately represent circumstances in other educational

contexts. The depth of qualitative analysis could have been impacted by time limits, and participant familiarity with digital tools might have had an impact on learning outcomes and engagement. Therefore, with these limitations in mind, the results of the study should be interpreted.

6. Tools of the Research

The study employs the following tools:

- **Engagement Survey:** A quantitative tool used to measure learner engagement and attitudes toward the use of digital textbooks.
- **Qualitative Interviews:** Conducted to gather in-depth feedback from participants about their experiences and perceptions of digital textbooks.
- **Statistical Analysis Software:** Utilized for analyzing survey results and interview data to identify trends and significant findings.
- **Thorne's (2003) Cultures-of-Use Framework:** An analytical tool used to understand how digital textbooks are integrated into the cultural learning practices of students.

7. Methods and Materials: Setting and Participants

The setting selected for this study was an English language centre in Iraq. The learners had taken a pretest, and their results showed that they could speak English at an elementary level. The main goal of the course was to improve their overall language proficiency in English, with an emphasis on the four skills; speaking, writing, listening, and reading.

Participants in this study, preparing for their first year of college in Iraq, with an average age of 18 (range, 18–23). There were 9 males and 9 females, all of whom were native Arabic speakers from Iraq. All have a printed version of the book. In addition to their printed textbooks, they are guided by their teacher who integrates the use of a digital textbook within the classroom environment. During the course, pair work or small groups of four to five learners collaborated in this competency-based course, which focused on real-world practice including email writing and everyday communication. All participants in the study are digital natives, owning smartphones or tablets and regularly engaging in various digital activities such as social media interactions, watching movies, and using

educational apps. Despite their familiarity with digital devices, they have confirmed that they have not been taught using digital textbooks before.

8. Literature Review

8.1. Digital Textbooks

Research into digital textbooks has predominantly centred on classes catering to native-English speaking (NES) students, yet its implications extend significantly to non-native-English speaking (NNES) students. Much of the research employs survey methodologies to gauge student preferences, consistently revealing a preference for print over digital textbooks. Baek and Monaghan (2013), for instance, discovered that only 34% of over 600 NES students surveyed expressed satisfaction with commercially produced digital textbooks. Interestingly, older students tended to view digital textbooks more favourably, possibly because younger students often use computers more for entertainment rather than academic purposes. Baek and Monaghan advocate for the development of customized digital textbooks by faculty, tailored to better meet students' needs. In a study involving 12 NNES students, Lam et al. (2009) found that those who used publisher-produced digital textbooks extensively tended to have more negative perceptions compared to those using them for shorter durations. This highlights the importance of assessing students' perceptions both initially and longitudinally to gain deeper insights into their experiences.

According to Evans and Po (2007), non-native undergraduate participants found it difficult to interact with digital texts. Similarly, McFall (2005) observed that their undergraduate non-native participants underutilized several capabilities of personalized digital textbooks, citing unfamiliarity and the difficulties presented by the digital format as reasons. These results indicate that it is essential to carefully plan and personalize when employing digital textbooks in classrooms. Because online reading experiences may require different approaches and competencies, effective training becomes increasingly essential, especially in elevating critical reading skills for digital texts.

Non-native English learners experience particular difficulties when navigating digital textbooks because, for them, it is challenging to use well-known techniques in this unfamiliar context. Adjusting annotation techniques and controlling possible eye strain are some common issues when reading on screens which add to an already taxing endeavor. There is not much research done on the precise procedures and tactics non-native learners of English use while interacting

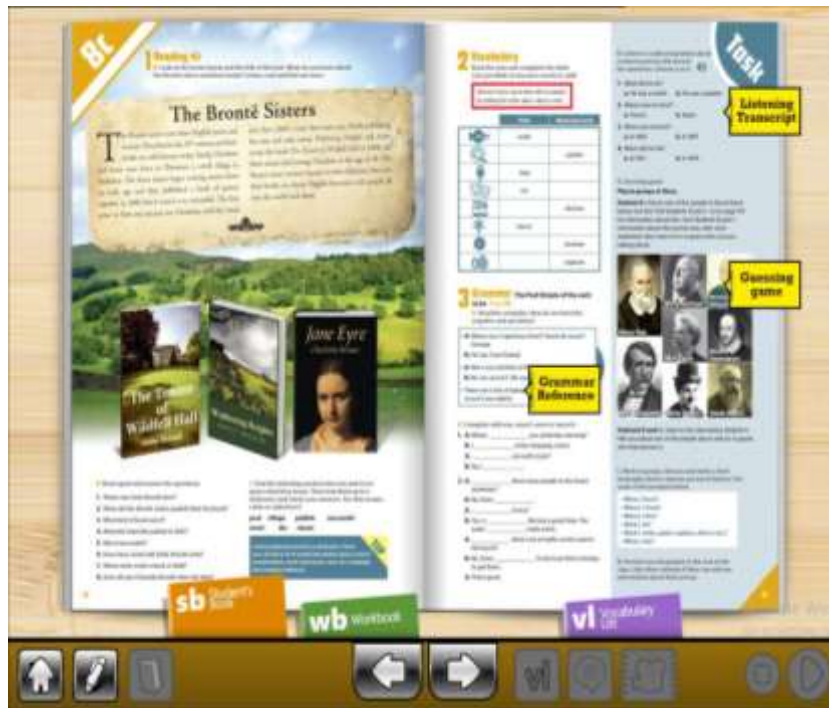
with digital learning resources although these challenges are still present (Chou, 2012).

Recent research has gone beyond conventional surveys and used cognitive-based techniques to examine cognitive processes and problem-solving techniques in technology-based learning environments (Okuyama & Igarashi, 2007; Sun, 2003; Vinther, 2005). These methods have proven useful in comprehending reading environments for second languages (Brown & Rodgers, 2002), providing valuable information about efficient teaching strategies and support systems that are essential for improving the learning experiences of non-native English speakers (NNES) using digital textbooks.

This study investigated learners' perceptions and experiences with digital textbooks in an EFL classroom in a non-native English-speaking nation using both anticipated and actual engagement questionnaires in addition to qualitative interviews. Through the use of these mixed-methods techniques, the study sought to provide a thorough understanding of how non-native English speakers interact with and interpret digital learning materials in a variety of linguistic and cultural contexts. Included are screenshots that highlight the interactive features and multimedia integration of digital textbooks, as well as their features and usability (MM Publication, 2024). These visuals provide a tangible representation of how digital textbooks support interactive learning environments, thereby enriching educational practices and fostering engagement among NNES learners.



Screenshot (1): There is an audio player for listening comprehension, accompanied by an "Answers" button for checking responses.



Screenshot (2): There is a reading passage, a listening transcript, a guessing game, a grammar reference section, and various other navigable features.



Screenshot (3): Animated video is displayed.

8.2. Bridging the Gap: Pedagogical Adaptation and Training

The mixed results regarding the effectiveness of digital textbooks underscore a disconnect between their societal applications (e.g., social media) and educational uses (e.g., digital textbooks, learning management systems). Kessler, Bikowski, and Boggs (2012) suggest that this gap presents an opportunity for the co-evolution of tools, pedagogical practices, and usage patterns (p. 105). As digital textbooks become more prevalent in education, there is a need for revised pedagogies that are aligned with these tools and the ways teachers use them to teach their students.

Hubbard (2004) highlights the distinction between operational competence and learning competence, stressing the importance of effective training to bridge this gap. This training should help learners understand how digital resources align with learning objectives. Instructors play a crucial role in fostering positive learning relationships between students and their digital tools, ensuring that engagement transitions from personal to academic contexts. While the alignment between students' expectations and their actual experiences with digital textbooks is vital, it remains an area that requires further exploration.

9. Theoretical Framework

According to Thorne (2003, 2016), the cultures-of-use conceptual framework emphasizes the significant influence of tools and their usage, including for educational purposes, as determined by societal norms: "The design of the tool as well as the habitual patterns of its use influence the purposes to which it is put and methods by which it is used" (Lantolf, Thorne, & Poehner, 2015, p. 209). The way a tool (or artefact) is employed establishes a culture of use; for example, a tablet can fit into either a personal or academic culture of use. Thorne (2003) found that a learner's prior artifact-mediated activity can either facilitate or constrain their future learning activity. These cultural artefacts gain significance within specific contexts. Consequently, critical academic engagement with a mediating learning artefact can lead to increased engagement and positive educational outcomes. However, such outcomes do not naturally arise and can benefit from teacher guidance and peer discussions.

The studies discussed above highlight the examination of digital texts or textbooks in various contexts, revealing a common theme: a lack of emphasis on training users for learning competence with these resources. Despite Lam et al. (2009) including some training, it predominantly focused on operational

competence. While learners in these studies may have acquired technical skills for using digital texts or textbooks (e.g., navigation features, notetaking tools), there is scant evidence that they were adequately trained in effective learning strategies (e.g., previewing, and note-taking methods). This deficiency in fostering an academic culture of use and the absence of robust learning strategies could have posed obstacles to learning and discouraged learner engagement.

To enhance student engagement, educators can integrate digital textbooks into classroom settings, allowing students to interact with both the digital content and the instructor simultaneously. This approach leverages direct visual cues and interactive instruction, creating a dynamic learning environment that fosters deeper engagement and comprehension compared to traditional printed materials. This study explores the experiences of non-native English speaking (NNES) students in a university-level beginner-level General English course using a customized interactive digital textbook. The digital textbook underwent prior usability testing and was fully integrated into the curriculum. The research seeks to address the following questions:

1. How do EFL learners perceive the impact of the interactive digital textbook used by their teacher in the classroom, both anticipated and actual, on their learning experience and engagement?
2. What are the perceived benefits and challenges that students identify in their learning processes as the teacher uses an interactive and customized digital textbook in classroom instruction?

Digital Textbook Used for this Study

The digital textbooks were procured from MM Publications, the official provider of the English language centre, and sourced through the University of Birmingham. Throughout this study, "digital textbook" refers to this customized interactive resource, acknowledging its tailored features.

The course, aligned with the Common European Framework of Reference, systematically develops key competencies through its twelve topic-based modules. Each module covers motivating and contemporary topics enriched with multicultural and cross-curricular information. Lively dialogues present functional language for real-life situations, complemented by reading materials sourced from authentic texts. The course adopts an integrated approach to *anticipate* the digital textbook would (term initial) and then *actually did* (term final) influence them in

various behaviours and feelings. General demographic and computer-use questions were also included.

The survey was distributed in Week 1 to identify potential participants based on their weekly engagement with digital textbooks. All 18 participants, identified as beginners through placement tests conducted at the outset of the 12-week study, were included. Following the completion of the 12-week course, participants were administered an actual engagement survey in the final week to assess their overall experience with digital textbooks throughout the study period. Subsequently, interviews were conducted with nine randomly selected participants to delve deeper into their perceptions and experiences with digital textbooks. All participants in this study are Iraqi nationals, providing valuable insights into the usage of digital textbooks among beginner learners in non-native English-speaking settings like Iraq.

Engagement Survey

The same engagement survey was given during Week 1 (anticipated) and Week 12(actual), so the verbs changed to the past tense. A Wilcoxon signed-rank test was used to compare participants' anticipated and actual feelings of engagement with the digital textbook. This non-parametric test was chosen given the non-normal distribution of the data set. The effect size (r) was calculated as the Z score divided by the square root of N minus any ties (Larson-Hall, 2010). Developing the four language skills, with a special emphasis on vocabulary building and grammar practice in context (MM Publications, 2024).

Systematic development of reading and listening skills, along with various sub-skills, prepares learners for effective communication across diverse social contexts. The course includes integration of learning tools such as hyperlinks, multimedia (e.g., images, open-source or custom-made videos), and interactive elements like self-assessment quizzes and links to Google Forms tasks. These tools enhance engagement and facilitate interactive learning experiences.

A variety of communicative tasks, coupled with activities fostering critical thinking and personal response, ensure engagement and deeper understanding. The step-by-step approach to writing supports learners in practical skill development, while task-based activities ready them for real-world applications. Practical tips encourage autonomy in learning, while regular round-up sections within each module aid in the revision and consolidation of learned material. Additionally, a dedicated grammar reference section further supports

comprehensive language learning throughout the course (Mitchell & Malkogianni, 2017)

It is worth noting that the digital textbook is utilized within the English language learning centre's dedicated space, supported by a laptop connected to a 73-foot LCD screen, and operated by the teacher. This setup enhances instructional delivery and supports interactive learning experiences.

Teacher's Role

When districts incorporate e-textbooks, teachers must integrate them into their classrooms. According to Lokar (2015), e-textbooks should simplify and expedite teachers' tasks while providing more options. However, this is not always the reality. E-textbooks vary significantly, from simple digital copies with annotation features to interactive multimedia versions (Choppin et al., 2014), affecting how teachers use them in their teaching. Despite this, educators share the goal of helping students become independent learners capable of inquiry, understanding, analysis, and problem-solving (Dobler, 2015). Both traditional and e-textbooks are essential tools in this educational journey.

Teachers need to instruct students on using e-textbooks, as proficiency with digital devices does not necessarily translate to effective use of academic digital resources (Dobler, 2015). Functions like enlarging text, highlighting, and note-taking should be demonstrated. Millar and Schrier (2015) noted that while students are familiar with technology, they often lack instruction on its efficient academic use. Teachers should model how to use these features effectively, including multimedia and collaborative capabilities.

E-textbooks with multimedia and interactive elements offer customization and personalization options, enhancing traditional print textbooks. These features enable instructors to link to extra resources, sequence content, and give prompt feedback (Choppin et al., 2014). To help with class pacing, certain e-textbooks also produce findings from formative exams.

Despite the advantages of e-textbooks, educators still need to take into account students' varied learning styles. According to Chulkov and VanAlstine (2013), students' learning preferences influence their decisions between print and digital textbooks. Dobler (2015) highlighted the need to provide both forms to improve motivation and engagement. Students who learn well with one format may be disadvantaged if they are restricted to it. In the end, educators ought to use digital media in ways that best meet the requirements of their learners.

7. Procedure and Analysis

Following Vinther's (2005) framework, this study utilizes a mixed-method approach to examine how well digital textbooks improve learning experiences. An anticipated engagement survey was distributed to all participants at the start of Phase I (Weeks 1-2). This is to estimate their first expectations for the use of digital textbooks. During Phase II (Weeks 3–10), participants received continuous coaching while learning how to use features including multimedia integration, annotations, and instant feedback.

In Phase III (Weeks 11–12), an actual engagement survey was conducted to measure participants' experiences close to the end of the course. In addition, nine randomly chosen students participated in qualitative interviews to confirm results and acquire more profound information. Moreover, qualitative analysis of interview data was combined with quantitative analysis of survey responses to obtain a comprehensive understanding of the impact that the digital textbook has on engagement and learning outcomes. This mixed-method approach provided effective insights for implementing digital textbooks into English language classrooms while ensuring a thorough examination of their effectiveness. Rogers and Brown (2002).

Results

Table1. Anticipated and Actual Engagement with the Course Digital Textbook (N = 18)

The digital textbook will encourage (encouraged) me to...	Anticipated Engagement		Actual Engagement	
	M	SD	M	SD
See details and illustrations more clearly.	4.5	0.7	4.8	0.5
be engaged and interactive.	4.1	0.5	4.3	0.3
focus and have fun.	4.4	0.6	4.7	0.6
have better discussion and participation.	4.2	0.9	4.6	0.5
learn from additional multimedia resources.	4.0	1.0	4.4	0.8
improve understanding of textbook material.	4.2	0.7	4.4	0.5

enhance comprehension of the topic.	4.50.7	4.8 0.4
help stay on track and follow the lesson.	4.2 0.9	4.70.4
practice collaborative learning and discussion.	4.4 0.8	4.5 0.7
find annotating or highlighting features helpful.	4.2 0.9	4.70.5
increase cultural awareness	3.81.14.20.9	
find interactive exercises or quizzes useful.	4.01.0	4.50.7
increase student collaboration or group work.	4.2 0.9	4.6 0.6

A comparison is drawn between the expected and actual levels of engagement through several learning outcomes by using a digital textbook. Two statistical methods are employed: The Wilcoxon signed-rank test and mean scores to provide information about differences between learners' expectations and experiences. Participants consistently gave the digital textbook a positive rating in several categories. The average score for anticipated advantages such as enhanced visual comprehension and clarity was 4.5 (SD = 0.7). With a score of 4.8 (SD = 0.5), actual engagement exceeded these expectations and demonstrated how digital textbooks employed visual aids to improve learning outcomes. Similarly, real interaction received a higher score of 4.9 (SD = 0.3) than expected interactive and engaging elements, which were assessed at 4.6 (SD = 0.5). This demonstrates how the digital textbook can be more effective in delivering dynamic educational opportunities that interactively engage learners of English.

Additionally, the digital textbook showed support for the collaborative learning environment. This can be seen through the expected engagement levels at 4.4 (SD = 0.8) and verifying this with an actual score of 4.5 (SD = 0.7). The majority of the feedback was positive. However, there were some minor differences between the expected and actual levels of engagement in areas like multimedia use and cultural knowledge. Anticipated scores averaged about 4.1 (SD = 0.8) whereas actual engagement scored roughly 4.4 (SD = 1.0). These results indicate improvement is needed in some areas to successfully incorporate multimedia materials and support a wider cultural understanding through the digital textbook.

Interviews

The researcher plans to interview a subset of 9 learners from the 18 participants. This smaller sample will allow us to gather in-depth qualitative data while managing the workload. Here's the list of questions grouped by theme for interviewing nine random learners: 1 = Strongly Disagree and 5= Strongly Agree.

Table 2. Interviews with participants who are randomly selected (N = 9)

Question (1-5)	Average Score

1. Frequency of Digital Textbook Use	4.4
How often does your teacher use the digital textbook during English language classes?	
2. Feelings about Digital Textbook Projection	4.4
How do you feel about having the textbook projected digitally during lessons?	
3. Enhancement of Learning Experience	4.5
Does having the textbook projected digitally enhance your learning experience?	
4. Benefits of Understanding Textbook Material	4.5
Have you noticed any benefits or improvements in your understanding of the textbook material?	
5. Helpfulness in Class Discussions or Activities	4.5
Do you find it helpful to have the textbook projected digitally when following along with class discussions or activities?	
6. Impact on Interaction with Classmates and Teacher	4.2
How does having the textbook projected digitally impact your interaction with classmates and teachers during lessons?	4.6

7. Preferred Features of Digital Textbook Projection	4.6
Are there any specific features or functionalities of the digital textbook when projected that you find particularly helpful or interesting?	
8. Suggestions for Improvement	4.7
Do you have any suggestions or ideas for how the textbook could be integrated even more effectively when projected digitally during English language classes?	
9. Comprehension of Key Concepts	3.0
How effectively does the digital textbook, when projected, help you comprehend key concepts in English language classes?	
10. Overall Impact on English Language Learning Experience	4.1
How would you describe the impact of having the textbook projected digitally on your overall English language learning experience?	

Based on the interview findings, digital textbooks play a pivotal role in English language classes, with teachers utilizing them frequently (average score of 4.7 out of 5). This high frequency of use underscores the integration and reliance on digital tools as essential components of modern educational practices. Students generally express favourable sentiments towards the digital projection of textbooks (average score of 4.4), indicating a positive reception and comfort with using digital mediums for learning materials. This acceptance underscores the adaptability of students to digital platforms, contributing to a conducive learning environment where technological tools are embraced for educational purposes.

Additionally, students believe that digital textbook projection significantly improves their learning experiences (average score of 4.5). This improvement shows that, in comparison to traditional ways, digital tools efficiently allow better comprehension and engagement with course topics. With an average score of 4.5, students also report measurable advantages in comprehending textbook content when it is presented digitally, underscoring the usefulness of digital tools in

promoting learning objectives and facilitating the retention of important ideas covered in class.

Discussion

The difficulties that learners of English usually encounter when they use digital textbooks, which include engagement and a propensity for traditional print formats, have been repeatedly noted in previous research (Baek& Monaghan, 2013; Lam et al., 2009; Evans & Po, 2007; Chou, 2016; Woody et al., 2010). In response to these current challenges, this study deals with these issues by measuring how digital textbooks can be effectively used by teachers to support learning and how their use can benefit English learning for general English courses. The main focus of this study is the use of a digital textbook by a teacher and how it is employed to satisfy the particular requirements and preferences of English language learners at the beginner level in an EFL classroom.

Learner Engagement with their Digital Textbook and the Teacher

An essential area of study that reflects the changing nature of education is how learners of English engage with digital textbooks and instructors. Digital textbooks can increase learner engagement. This is because they provide interactive and multimedia features that traditional textbooks do not. These features, which accommodate different learning styles and keep students more actively involved in their education, include interactive tests, short clips, hyperlinks, and collaboration tools. Additionally, digital textbooks are interactive. Thus, they provide immediate feedback, allowing learners to regularly improve their comprehension and ask for assistance as necessary.

Furthermore, digital textbooks are more accessible and flexible because they allow learners to access their course materials from anywhere in the world and at any time; learners can develop more frequent study habits and become more motivated. Through the use of digital textbooks, learning experiences can be tailored to meet the requirements and preferences of individual learners by changing font and screen sizes or alternating between different material delivery methods. Therefore, learners can feel more engaged as a result of this personalization.

In this digital era, the teacher's guidance is equally essential. Educators have an important role in navigating and incorporating digital resources into their

teaching techniques. Teachers, who aspire to effectively utilize in classrooms, must not only understand the digital material but also know how to use the technology to improve learning outcomes. This entails teaching learners how to use digital tools that support learning goals and create a cooperative learning environment through digital materials and instant feedback exercises.

In this digital age, the teacher's function is equally important. These digital resources must be successfully navigated and incorporated into teaching methods by educators. Teachers who want to use digital textbooks effectively must not only understand the material but also know how to leverage the technology to improve student learning. This entails teaching students the proper use of digital tools, selecting digital information that supports learning goals, and creating a cooperative learning atmosphere through online forums and exercises.

Pedagogical Implications and Future Research

It is important to mention that designing materials and educating learners are two connected areas that have pedagogical consequences for teaching English through the use of digital textbooks. This research paves the way for the creation of the Framework for Learning with Digital Resources, which offers recommendations in several areas. It should be realized that various digital resources could have an influence on a user's learning and cognition and that learner strategies may differ based on the digital resource being employed by the teacher in the learning environment (Thorne, 2016).

Regarding materials design, digital textbooks are most effective and engaging when they are customized to the technology, course, and students. They should be interactive, exploiting the hypertextual, multimodal, and communicative affordances of the platform. Usability testing with students and teachers is crucial, allowing for revisions as needed to ensure the materials align with student expectations and preferred use. Customization enhances relevance and engagement, making learning more meaningful for students. Incorporating hypertextual, multimodal, and communicative features leverages the digital platform's capabilities, fostering deeper engagement and active learning. This includes elements like videos, interactive quizzes, hyperlinks, and discussion forums.

Training supports students so that any "inherent imperfection" with the technology does not hamper learning (Okuyama & Igarashi, 2007, p. 54). Training should be iterative, flexible, collaborative, reflective, and customized to the

context and students. Effective training allows educators to help students maximize learning and utilize the affordances of digital textbooks. By addressing potential technological challenges and enhancing digital literacy, training ensures that students can fully benefit from the digital resources provided.

While this exploratory research marks an important early step, it is somewhat limited in its generalizability due to the small number of participants with a narrow range of native languages. Future research can further explore students' development of an expanded academic culture of use with digital textbooks and devices, compare strategy use over time or across contexts, and identify learner characteristics that may encourage more effective strategy use. Additionally, comparing strategies and processes by students at different levels of proficiency in the second language or with the technology would be valuable. Understanding the roles that students assign to their devices in the learning process, particularly as those roles relate to the device rapport students may experience, is also crucial.

Furthermore, incorporating AI into digital textbooks could significantly enhance learning, particularly in English as Foreign Language (EFL) settings where learners have no native speakers of English to interact. Therefore, a conversational AI tutor is implemented within a digital textbook. This type of AI integrates within the digital textbook platform to provide interactive speaking practice, feedback on pronunciation, grammar correction, and even contextual understanding of language usage. It enhances the learning experience by offering real-time interaction and personalized learning pathways tailored to the student's proficiency level and learning pace.

Conclusion

This study highlights how interactive, teacher-guided digital textbooks can improve learning results and learner engagement in EFL classrooms. Teachers can enhance non-native speakers' educational experiences by facilitating the adoption of customized learning methodologies through the appropriate use of contemporary technologies. Teachers' systematic assistance guarantees that students may successfully navigate academic digital environments as digital textbooks become an essential part of classroom learning. In addition to encouraging active student participation, this strategy supports the adoption of successful teaching strategies for online settings. To satisfy students' varied learning requirements and get them ready for success in an increasingly digitally-driven educational environment, instructors must continue to innovate and adapt digital resources.

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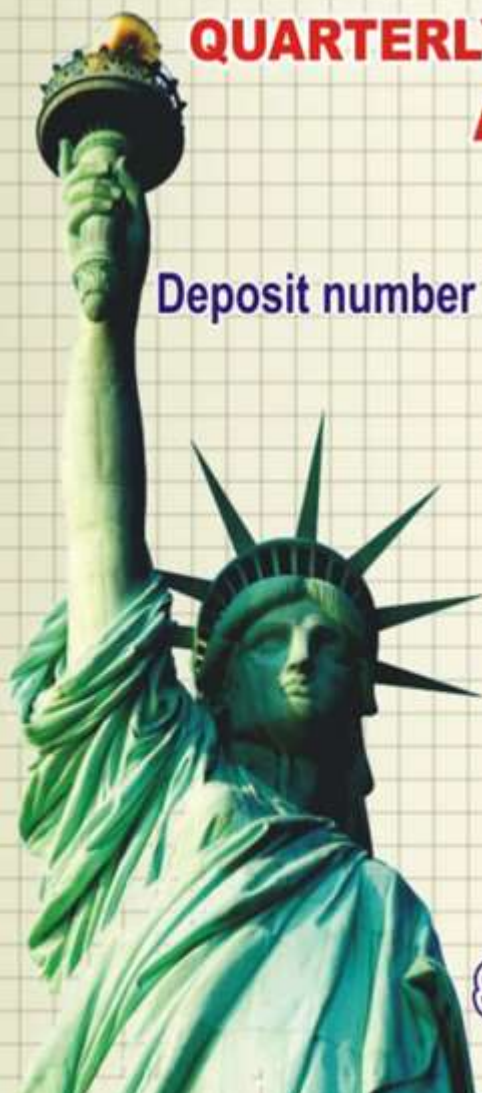
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