

## The Implementation of Digital Technologies in Reading Instruction: A Case Study

Jova Zirga Maijava Mahendra<sup>1\*</sup>, Dian Fadhilawati<sup>2</sup>, Adin Fauzi<sup>3</sup>

Balitar Islamic University

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**\*Correspondence Address:**

[jovazirga05@gmail.com](mailto:jovazirga05@gmail.com)

**Abstract:** This study explores the implementation of digital technologies in reading instruction to enhance student engagement and comprehension. The study employed a qualitative single case study design, conducted at SMAN 1 Blitar with one English teacher and five eleventh-grade students selected through purposive and snowball sampling. Data were collected through interviews, observation, and documentation, and analyzed using an interactive model involving data reduction, presentation, and conclusion drawing, with triangulation applied to ensure credibility. The study findings indicate that digital technology was effectively implemented in four stages planning, implementation, evaluation, and challenges. The result showed in planning stage, teachers selected digital platforms based on usability, interactivity, and alignment with the curriculum. Implementation engaged students with interactive texts, discussions, and text comprehension. Evaluation was supported by quizzes and feedback to monitor learning progress. Despite challenges such as unstable internet access, device limitations, and varying digital literacy, students reported greater motivation and improved comprehension, particularly in identifying main ideas and interpreting texts. In conclusion, digital technology is effective in enhancing students' reading learning.

### INTRODUCTION

English has emerged as the predominant global language, permeating various aspects of modern life. Mastering English as an international language is crucial for cross-cultural communication and collaboration (Raja et al. 2022). Its widespread presence makes English an unavoidable part of our daily experiences. Students worldwide study English as both a communication medium and instructional language, which can enhance their opportunities in education, professional careers, and international social interactions (Situmorang et al., 2021).

The importance of English as an international language has driven its status as a mandatory subject in Indonesia since the introduction of educational reforms in the Development of English teaching and learning Teaching in the Ministry of Education issued Ministerial Decree Education and Culture Decree No. 096/1967

on December 12, 1967.1967 (Zein et al., 2020). This policy underscores the critical role of English in equipping students with the skills needed to navigate global communication, access international resources, and enhance career prospects. The Indonesian education system emphasizes mastering four language skills listening, speaking, reading, and writing each contributing uniquely to comprehensive language acquisition (Yuliana, 2016; Ismailiyah & Fadhilawati, 2022). Reading is the foundation of intellectual development, opening the door to a vast knowledge base. Reading serves as the primary means of accessing essential information and skills that enable mastery of almost every academic subject. When we develop strong reading skills, we gain the ability to independently explore complex ideas, critically evaluate information, and continually expand our understanding of the world (Ruzin, 2019).

Besides, it is needed to acquire knowledge across various fields and contexts; reading is pivotal for expanding students' vocabulary, developing their critical thinking skills, engaging them in diverse perspectives, and staying informed in various academic, personal, and professional contexts (Ismail et al., 2017). Supporting this view, Putri highlighted that reading enhances students' English proficiency, cognitive abilities, and vocabulary while enabling them to access new information and experiences efficiently (Putri, 2022).

Moreover, there are several key benefits of reading: First, regular reading exposes learners to diverse language structures, including grammar, syntax, and vocabulary, which improves their overall language use. Second, reading encourages active engagement, helping learners analyze, interpret, and evaluate information, which aids in forming opinions and arguments. Third, reading enhances vocabulary acquisition by presenting new words in context. Finally, reading provides access to a broad spectrum of facts, information, and experiences, expanding knowledge. (Hardiyanto et al., 2016; Kaya, 2015; Septia et al., 2022).

Despite previous researchers' importance and benefits of reading, many English as a Foreign Language (EFL) learners in Indonesia struggle with reading comprehension. Students often face challenges in understanding text organization and connections between sentences, leaving them discouraged and unable to

concentrate. They frequently focus solely on decoding the text without grasping its meaning, struggle with synonyms for complex words, and encounter difficulties identifying the main ideas in passages (Puspita et al., 2023). Additionally, vocabulary limitations pose significant barriers to understanding text content (Bahrudin et al., 2020; Fadhilawati, 2016).

Digital technology was chosen because it provides an interactive, adaptive, and student-centered learning environment that transforms a passive reading task into a dynamic and engaging learning experience. Meanwhile, reading is emphasized because it serves as a foundational language skill that not only promotes academic achievement across the sciences, but also develops critical thinking, expands vocabulary, and strengthens students' ability to understand and communicate effectively in both academic and real-world environments.

Digital technology has fundamentally transformed education and numerous aspects of human life in the modern era (Julita, 2022). It has become an integral component of modern education, serving as an effective tool for information access and knowledge acquisition (Dwanda Putra et al., 2023). emphasize that digital technology integration has significant potential to accelerate learning skill acquisition and enhance students' life skills while enabling teachers to develop more accessible learning materials.

One unique phenomenon in integrating technology into teaching reading in English at the high school level is the use of interactive platforms such as Let's Read Asia, Newsela, and CommonLit. These tools gamify the reading experience, transforming traditional comprehension exercises into engaging activities that motivate students through immediate feedback and competition. Research has shown that gamification can increase student engagement and improve learning outcomes, particularly in language acquisition (Hamari et al., 2016). By combining reading tasks with digital interactivity, students not only enhance their reading skills but also develop critical digital literacy competencies.

These findings highlight the critical need to adopt alternative teaching strategies, particularly those that leverage technology, to improve reading comprehension outcomes at SMAN 1 Blitar. Interactive digital tools may not only

help bridge the proficiency gap but also foster a more engaging learning environment for students.

In the context of English learning processes, the use of digital technologies offers diverse opportunities to enhance language acquisition, foster cross cultural communication, and improve learners' engagement and motivation as highlighted by (Raja et al., 2022). the use of digital tools in English learning can bridge cultural boundaries, ensuring effective communication in a globalized world. R. P. Situmorang et al., (2024) note that incorporating digital technologies in English education not only strengthens language competence but also prepares students to seize opportunities in education, the workplace, and society globally.

As stated by Mualif et al., (2023), technology serves as both a learning medium and resource, facilitating enhanced communication between teachers and students. This technological integration helps prevent student disengagement while supporting teachers in achieving their pedagogical objectives (Fälth & Selenius, 2024). In addition, teachers' attitudes toward digital technology implementation in primary education are significantly influenced by their confidence, beliefs, and self-efficacy, with school culture playing a crucial role in this relationship (Spiteri & Chang Rundgren, 2020).

This study shows the potential of digital technology in teaching reading. The research conducted by Haqiqiyah, (2020) Examines the relationship between Indonesian reading ability, English knowledge, and English reading ability. However, most of these studies only focus on one or two phenomena of technology and education, such as classroom cases or the technical capabilities of teachers and students (Ilomäki & Lakkala, 2018).

Reading skills, particularly in secondary education, involve the complex ability to transform written symbols into meaningful comprehension (Hatiningsih & Adriatic, 2019). demonstrate that reading not only reinforces vocabulary acquisition but also enhances learners' ability to use both familiar and new words effectively. This relationship between reading and vocabulary development becomes increasingly important in the digital age (Styati & Khasanah, 2022).

## RESEARCH METHODS

The research design used by the researcher was Yin's (2018) single case study design, focusing on the implementation of digital technology in reading instruction. The research design chosen was an embedded case study design, in which the main case was divided into more specific sub-units of analysis to gain a comprehensive understanding.

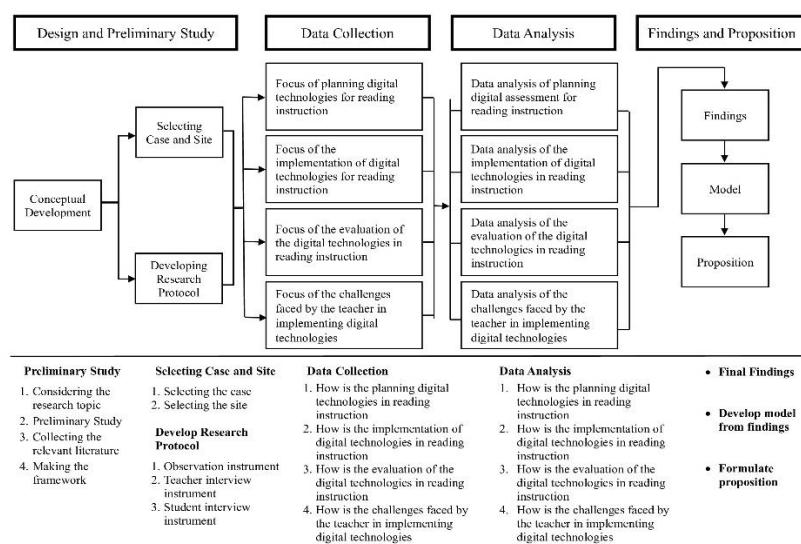


Figure 1. Single Case Study Design adapted from Yin (2014)

This study was conducted at SMAN 1 Blitar in May 2025 during the 2024/2025 academic year. The research subjects were determined using purposive sampling, which was then developed through snowball sampling. The key informants were one English teacher and five students from classes XI-1 and XI-3. The selection of these subjects was based on their knowledge, experience, and involvement in learning activities using digital technology.

Researchers actively participated in data collection through three techniques: observation in classes XI-1 and XI-3, interviews with teachers and students to explore their experiences and perspectives in using digital platforms for reading instruction, and documentation to supplement observation and interview data. The observation process was conducted in real time to record teacher and student interactions and the overall learning atmosphere, while interviews were conducted face-to-face with an approach that respected the comfort of participants

so that they could share their experiences openly. This research refers to the methodological framework developed by Yin (2018) for case studies and Creswell (2014) for qualitative research approaches.

The researcher had actively participated in the study by conducting interviews with teachers and students. In addition, the researcher had also taken part in other activities, such as observing classroom activities and collecting documentation. The researcher was directly involved in the data collection process at the research site.

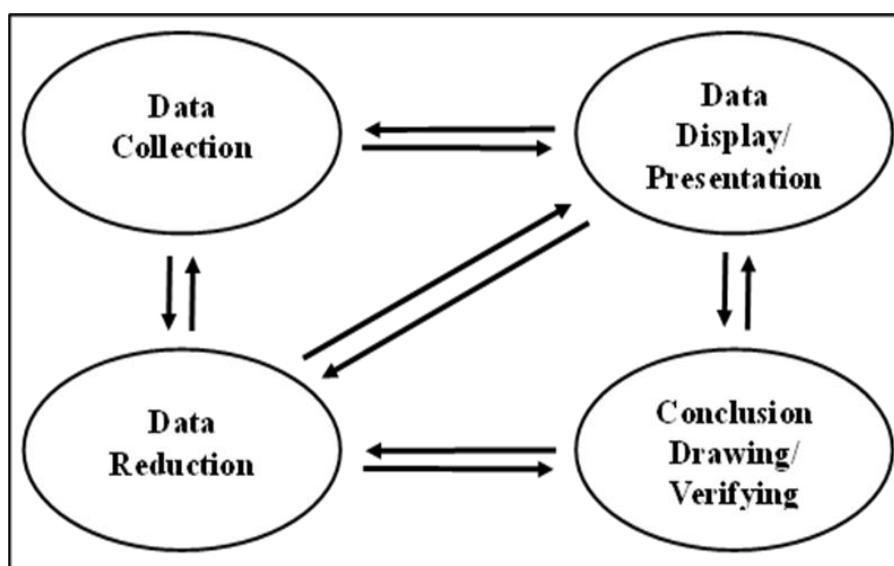
During the observation process, the researcher observed in class XI-1 and XI-3 to see firsthand how learning using digital platforms is implemented. we recorded various important things that happened in the classroom in real time, including the interaction between teachers and students as well as the overall learning atmosphere. This allows us to gain in-depth understanding that cannot be obtained from remote observation.

At the interview stage, the researcher conducted face-to-face sessions with one English teacher and five students from classes XI-1 and XI-3. The interviews were conducted in a structured manner and with an approach that respected the comfort of the participants, so that they felt open in sharing their experiences. By interacting directly, the researcher was able to clarify the answers given, dig deeper for information, and build a good relationship with the participants. This enriched the data obtained and increased its trustworthiness.

The researchers processed information from observations, interviews and document reviews using an interactive data analysis model. As described by Miles and Huberman (2014), data from these sources were systematically analyzed to identify patterns, trends and relationships. The aim of this approach was to generate a comprehensive understanding of the research topic and to produce relevant and accurate findings, both supporting and criticizing the research results. to analyze the interview results, researchers used an interview contact summary form. To analyze the observation data results, researchers used an observation contact

summary form. and to analyze the documentation results, researchers used a documentation contact summary form.

Figure 2. Data analysis framework adapted from Miles and Huberman (2014)



To analyze the data obtained in this study, the researcher used various structured summary instruments tailored to the features of each data source, such as interviews, observations, and documentation. The use of these instruments allowed the researchers to systematically organize and interpret the information, which enabled them to identify key themes and patterns relevant to the focus and objectives of the study, as follow:

1. Interview

In managing the interview data, the researcher used the interview contact summary as the main tool to summarize the respondents' responses. These summaries helped to simplify complex conversations into a more concise and systematic form, thus facilitating the analysis process. Through this technique, the researcher was able to capture key points, frequently emerging patterns, and participants' views relevant to the research topic.

2. Observation

In reviewing the observation results, the researcher applied observation contact summary to compile field notes systematically and in detail. This technique allows the researcher to observe more clearly the dynamics in the

classroom, the interaction between teachers and students, and the implementation of digital based learning.

3. Documentation

To process information from various documents, the researcher used summary documentation. This approach helped in reviewing documents in a structured manner, both text and images, such as lesson plans, evaluation results, and visual documentation. discover key themes and integrate findings with data from other sources.

4. Coding

In the data analysis process, which includes three stages: open coding, axial coding, and selective coding. In the open coding stage, data from interviews, observations, and documentation were decomposed into main concepts and given initial codes.

## RESULTS AND DISCUSSION

The results of the research at SMAN 1 Blitar show that planning for digital based reading learning is aligned with the curriculum. Teachers set clear learning objectives, review CP and ATP documents, and select digital platforms such as Let's Read Asia, Newsela, and CommonLit. This selection considers ease of use, text difficulty level, and interactive features such as quizzes and exercises. After that, teachers develop lesson plans that integrate the pre-reading, during-reading and post-reading stages with the support of digital media such as Padlet, Mentimeter, Google Forms and Kahoot. This approach ensures reading activities become more interesting, relevant to students' lives, while fostering critical thinking skills.

During the implementation phase, significant changes occurred in learning methods. Teachers provided clear and structured instructions using a variety of formats oral, written, and visual accompanied by step-by-step demonstrations via projector or shared instructions in PDF or video format. This approach ensured that all students could understand how to use the digital platform according to their different learning styles. The teacher's role shifted from a traditional instructor to a learning facilitator. Teachers encouraged active student participation by linking

reading content to their daily experiences and providing students with opportunities to choose reading materials that suited their interests within predetermined limits. This strategy made students more engaged and felt a sense of ownership in the learning process. Digital platforms with multimedia features successfully increased student engagement because they offered more engaging visual elements than traditional materials. Students became more motivated and engaged in the reading process because they could access materials through their mobile phones or laptops.

Evaluation results show that digital platforms for reading instruction have a positive impact on students' reading skills. Platforms like Let's Read Asia provide a variety of engaging reading materials tailored to students' abilities, enriched with multimedia features like images and audio, which help students better understand content and acquire new vocabulary more effectively. Comparison of student learning outcomes before and after using digital platforms shows a clear improvement in their reading skills. Teachers assessed students' understanding of content, analytical skills, and overall vocabulary development. Students became more engaged and understood English texts better after using digital media. Students experienced a significant increase in reading efficiency when using digital platforms. Integrated features like instant word search and multimedia support reduced the time required for comprehension and vocabulary acquisition compared to traditional reading methods.

Digital reading learning is not without its challenges. The main technical issues are internet connectivity and device accessibility. Many students lack personal devices or sufficient internet quota, preventing them from consistently accessing platforms. To address these challenges, teachers at SMAN 1 Blitar adopted flexible and adaptive strategies. A common solution was to prepare backup learning materials in offline formats, such as PDF files or printed texts, to ensure learning could continue even if digital access was disrupted. Teachers also provided support through direct tutoring and step-by-step instructions to help students adapt to digital tools. Interestingly, the digital generation, who are already familiar with social media and online content, found it easier to adapt to digital reading platforms. The transition from digital social media content to digital learning platforms was

relatively smooth for them. Overall, this study shows that the implementation of digital technology in reading learning at SMAN 1 Blitar successfully increased student engagement and performance in reading, although it still faced some technical challenges that could be overcome with the right strategies.

The discussion shows that the application of digital technology can improve the quality of reading learning through a structured and adaptive approach, in line with previous findings on the importance of platform selection according to students' interests and abilities. The role of the teacher as a facilitator supports student-centered learning, while the improvement of reading comprehension and vocabulary confirms the importance of reading as an essential skill. In addition, the use of diverse strategies through oral, written and visual delivery highlights the need to adapt methods to different learning styles. However, challenges still arise in the form of technical limitations, unstable internet access and limited devices, which widen the digital divide and hinder learning continuity. Therefore, teachers' adaptive strategies such as providing backup materials and flexible plans are key in emphasizing the importance of teachers' role and support.

## CONCLUSIONS AND RECOMMENDATIONS

In Conclusion, this study shows that the implementation of digital technology in reading learning at SMAN 1 Blitar follows a systematic four-stage approach that includes planning, implementation, evaluation, and challenges. The research findings revealed that teachers effectively selected digital platforms such as Let's Read Asia, Newsela, and CommonLit based on the criteria of usability, interactivity, and alignment with the curriculum. The implementation phase showed a significant increase in student engagement through interactive texts, discussions, and other activities supported by various digital platforms including Padlet, Mentimeter, Google Forms, and Kahoot.

This study shows that the use of a digital platform with multimedia features significantly increases student engagement by offering more engaging visual elements than traditional materials. Students become more motivated and active in the reading process because they can easily access materials via mobile phones or

laptops. The findings also show significant improvements in comprehension, analytical skills, and vocabulary after using the platform. Although technical challenges such as unstable internet connections and limited access to personal devices persist, teachers at SMAN 1 Blitar overcome these issues with adaptive strategies, including offline learning materials and step-by-step guides.

Future researchers are recommended to examine the long-term impact of digital technologies on students' reading ability and comprehension at different levels of education. Such a study would provide a comprehensive understanding of how sustained digital learning affects reading comprehension, vocabulary acquisition and critical thinking development over an extended period of time. Comparative studies between different digital platforms can also provide valuable insights into the effectiveness of each current digital platform, helping educators identify which tools best support learning objectives and student demographics. This research should consider factors such as user interface design.

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