THE IMPLEMENTATION OF DIGITAL FLIPBOOK TO ENHANCE STUDENTS' READING COMPREHENSION

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Abstract: The research aims to investigate the implementation of Digital Flipbook (DigiFlip) as an English teaching and learning media to improve students' reading comprehension in tenth grades of MAN 1 Surakarta during the 2024/2025 academic year. The study used a Classroom Action Research (CAR) design and collected qualitative data through observation, documentation, and questionnaires. Quantitative data was collected through pre-test, post-test 1, and post-test 2, and analyzed using the Miles and Huberman triangulation method. The results showed that the application of digital flipbook effectively improved students' reading comprehension, with an average score increase of 62 in the pre-test, 71 in post-test 1, and 86 in post-test 2. The classroom environment also showed a significant improvement, with students becoming more pleasant, enthusiastic, active, and conducive during the teaching-learning process. The study's findings highlight the potential of digital flipbooks in enhancing students' reading comprehension and English language learning.

Keywords: Reading comprehension; digital flipbook; classroom action research

Abstrak: Penelitian ini bertujuan untuk menyelidiki penerapan Digital Flipbook (DigiFlip) sebagai media pembelajaran bahasa Inggris untuk meningkatkan pemahaman membaca siswa di kelas sepuluh MAN 1 Surakarta pada tahun ajaran 2024/2025. Penelitian ini menggunakan desain Penelitian Tindakan Kelas (PTK) dan mengumpulkan data kualitatif melalui observasi, dokumentasi, dan kuesioner. Data kuantitatif dikumpulkan melalui pre-test, post-test 1, dan post-test 2, dan dianalisis dengan menggunakan metode triangulasi Miles dan Huberman. Hasil penelitian menunjukkan bahwa penerapan flipbook digital secara efektif meningkatkan pemahaman membaca siswa, dengan peningkatan skor rata-rata sebesar 62 pada pre-test, 71 pada post-test 1, dan 86 pada post-test 2. Lingkungan kelas juga menunjukkan peningkatan yang signifikan, dimana siswa menjadi lebih menyenangkan, antusias, aktif, dan kondusif selama proses belajar-mengajar. Temuan penelitian ini menyoroti potensi flipbook digital dalam meningkatkan pemahaman membaca siswa dan pembelajaran bahasa Inggris.

Kata Kunci: Pemahaman membaca; flipbook digital; penelitian tindakan kelas

INTRODUCTION

Reading skills are crucial in the global context, as they involve not only literal comprehension but also critical thinking, analysis, and synthesis of information encountered in texts. In an increasingly digitally connected world, understanding texts from various media and platforms is increasingly necessary. Rumelhart's theory emphasizes the importance of the reader's "schema" or important knowledge in comprehending new texts, taking into account the different backgrounds and experiences of each reader for optimal comprehension. In the Merdeka Belajar Curriculum, student-centered learning requires proactive and independent learning, with reading skills being a key asset. Without good reading skills, students may struggle in learning that demands initiative and independent exploration. The urgency of developing comprehensive reading skills is high, as it supports the achievement of other competencies such as critical thinking, independence in learning, and problem-solving abilities.

At the senior high school level, the curriculum demands critical thinking and deeper analytical skills from students. However, challenges in improving reading skills at the high school level include low interest in reading, limited access to quality reading materials, and lack of varied teaching methods. Reading skills are essential for cognitive, critical, and academic skills that will assist students in continuing their education or entering the workforce. A pre-observation of tenth grade students at MAN 1 Surakarta revealed several problems that hinder fluency in English texts. These include students feeling interested in English lessons but finding reading comprehension difficult, not practicing reading and comprehension due to limited time and opportunities, fear of making mistakes, not being used to reading various English texts, and a preference for conventional media over innovative ones.

The difficulty of students in understanding English texts in the learning process is attributed to the lack of varied media, limited teacher involvement, and lack of digital-based books and learning media. To improve students' understanding, innovative and effective learning media is needed. Digital books, such as Digital Flipbooks, can help students comprehend text in an interesting and interactive form. These books simulate the experience of reading a printed book with interactive effects, allowing users to "flip" pages like reading a physical book. Research by Jovan Syach Faurismawan and Husni Mubarok (2024) and Medjahed Mohamed Raji (2023) has shown that digital books are effective in classroom learning and can improve students' reading skills. Researchers aim to prove that Digital Flipbook can be a solution in enhancing students' reading comprehension in the tenth grade of MAN 1 Surakarta in the 2024/2025 academic year. Thus, the subsequent research questions were formulated to achieve the intended research objectives:

- How is the implementation of Digital Flipbook (DigiFlip) to enhance students' reading comprehension at tenth grades of MAN 1 Surakarta in the 2024/2025 academic year?

- How is students' perceived usefulness of Digital Flipbook (DigiFlip) to enhance students' ability in comprehend English text at the tenth grade of MAN 1 Surakarta in the 2024/2025 academic year?

METHODS

Research Participants

This study focuses on tenth grade students in class XE-5 MAN 1 Surakarta 2024/2025, a first-year high school class transitioning from junior high school to high school. The class consists of 34 students, mostly from the upper middle class, with minimal English knowledge. The students are curious about innovative learning media and have high interest

in English lessons. However, they struggle with motivation to learn English, particularly reading comprehension, due to the conventional and less effective learning media used in class. The students feel that reading comprehension is a difficult task to improve. The study highlights the need for students to adapt to the school environment and develop their English skills.

Data Collection Method

This research used a classroom action research method, utilizing both qualitative and quantitative data collection techniques. The primary qualitative data were obtained through observation, documentation, and questionnaires. Observations and documentation were conducted throughout the teaching and learning process, while questionnaires were administered at the conclusion of the study. The questionnaire in this research based on the CAB model proposed by Grabe & Stroller (2001), with questions adapted from Richard E. Mayer's (2020) study. Additionally, the study also used quantitative data, analyzed using the simple mean formula theory as outlined by Ary, Jacob, and Sorensen (2010). The research was carried out in two cycles, adhering to four key action research procedures: a) planning, b) action, c) observation, and d) reflection. Quantitative data were derived from student assessments based on Brown's (2003) framework. Multiple tests were conducted, including a pre-test, post-test 1, and post-test 2. The pre-test was administered at the beginning of the first cycle, post-test 1 was conducted at the final session of cycle 1, and post-test 2 took place at the end of cycle 2.

Data Analysis

This study used both qualitative and quantitative analysis. Qualitative data was examined using design analysis methods as proposed by Miles and Huberman (1994). Questionnaire data, including frequency and percentage for all responses, was analyzed through descriptive analysis methods. Additionally, data was gathered from observations, specifically by observing and comparing classroom conditions during the implementation of the digital flipbook. Meanwhile, the quantitative data was analyzed using the simple mean formula developed by Ary, Jacob, and Sorensen (2010), which was adapted to align with the speaking assessment rubric.

RESULTS AND DISCUSSION

This research used an action research approach, with students from MAN 1 Surakarta as the sample. Specifically, participants were drawn from the tenth-grade E-5 class, consisting of students aged 16 to 17 years. A total of 34 students took part in the study, comprising 18 female and 16 male students. The objective of this research was to enhance student engagement and learning outcomes at MAN 1 Surakarta, which was carried out over two cycles. The first cycle included four meetings, while the second cycle consisted of three meetings. Each cycle followed a structured process involving planning, action, observation, and reflection. Student test results were collected through assessments administered at the beginning of the study and at the end of each cycle. Additionally, data were gathered from observations and questionnaires related to students' learning activities. The results indicated an improvement in students' reading comprehension and overall learning conditions. The key findings of the research were as follows:

Students' reading comprehension can be improved by using digital flipbooks

The average score on the pre-test showed that students failed and did not pass, but

there was an increase in the next test given by the researcher (post-test 1). Based on the increase in students' average scores in each test, it can be concluded that this action is acceptable in class XE-5 at MAN 1 Surakarta in academic year 2024/2025. The students were able to understand the English text through the use of digital flipbook media, and it was proven that the use of digital flipbook can enhance students' understanding in identifying main idea, supporting idea and details, finding explicit information in the text, and increasing students' vocabulary mastery. The data showed the students' reading comprehensionenhanced significantly, it can be proven by the table below :

SCORE	PRE-TEST	POST-TEST 1	EXPLANATION
Students' highest score	77	90	IMPROVE
Students' lower score	57	57	IMPROVE
Mean score	62	71	IMPROVE

Figure 1. Students' Mean Scores of Pre-test, Post-test 1, and Post-test 2.

Based on the table of student scores above, it can be seen that the improvement from cycle to cycle. In cycle 1 in the pre-test the average student score was 62 and increased to 71 in post-test 1. The increase in value is 9 points, but in cycle 1 it has not passed the minimum value standard (>75). Researchers continued to cycle 2, in this cycle students took post-test 2. In post-test 2, student scores increased compared to cycle 1. In post-test 2, the student score was 86 which increased by 15 points from post-test 1. There was an increase in the class average score and could pass the minimum score standard (>75). In pre-test 2, there were 33 students (97%) who passed the KKM and 1 (3%) students who did not pass the KKM. Based on the explanation above, it can be concluded that the use of digital flipbook can enhance students' reading comprehension in the tenth grade of MAN 1 Surakarta 2024/2025 academic year.

Students' perceived usefulness of Digital Flipbook can enhance reading comprehension in English text

The researcher also used a questionnaire to prove that digital flipbooks have a positive impact on student conditions in the classroom. The questionnaire filled by 21 students of class XE-5 MAN 1 Surakarta. The questionnaire was distributed using google form and filled in using handphone. The results of the questionnaires and observations regarding the use of digital flipbooks to enhance students' reading comprehension showed several aspects, namely cognitive aspects, affective aspects, and conative aspects. The results of these aspects are as follows:

COGNITIVE ASPECT QUESTIONS

You feel that Digital Flipbook helps you understand English learning materials

Figure 2. Diagram Cognitive Aspect Questions

Based on the cognitive question, 67% of students agreed that digital flipbooks help them in learning English, in the second question 72% of students agreed that digital flipbooks help them in understanding new vocabulary in English, in the third question 67% of students agreed that digital flipbooks can help them in understanding sentence structure in English text. As many as 62% of students agreed that digital flipbooks can help them understand analysis questions in an English text. And 80% of students agree that the contents of the digital flipbook can be easily understood and remembered. Based on the results of the questionnaire, the researcher concluded that digital flipbooks provide positive benefits for students' cognitive aspects.
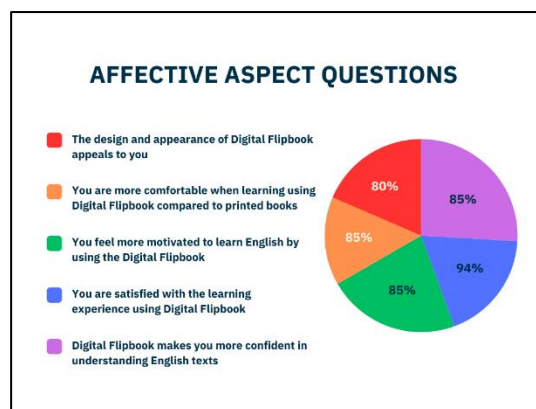

Figure 3. Diagram Affective Aspect Questions

Based on affective questions, in the first question 80% of students felt that the design and appearance of digital flipbooks were attractive to students, in the second question 85% of students felt more comfortable using digital flipbooks than compulsory books. A total of 85% of students felt that the use of digital flipbooks could motivate them in learning English. As many as 94% of students feel satisfied in using digital flipbooks in the learning process, and 80% of students feel more confident in understanding English text through digital flipbook. Based on the results of the questionnaire, the researcher concluded that digital flipbooks provide affective benefits for students' affective aspects.

Figure 4. Diagram Conative Aspect Questions

Based on conative questions, in the first question 89% of students often use digital flipbooks as supporting material outside of class hours at school. In the second question, 60% of students were interested and tried the interactive features provided by the digital flipbook, such as YouTube links, animations, and audio. As many as 75% of students often recommend the use of digital flipbooks to their friends. 89% of students provide notes and conclusions from the material contained in the digital flipbook to help them understand the material, and 88% of students often repeat learning material using digital flipbooks to master difficult material.

From the research results above, it can be concluded that digital flipbooks have positive benefits for classroom learning, especially learning reading comprehension in English text because it can help students to better understand the content of the text. Digital flipbooks are the right learning media to use in the classroom because students can explore their creativity. Apart from the data from the students' questionnaires, researchers also used observation to find out the condition of the class after the digital flipbook was implemented.

DISCUSSIONS

The study discussed about the impact of digital flipbooks on students' reading comprehension skills in tenth grade at MAN 1 Surakarta. The research used questionnaires and observation practices to assess the students' conditions during the implementation of digital flipbooks. The results showed that the use of digital flipbooks in the classroom was beneficial for improving students' reading comprehension skills. Students were more active, fun, enjoyable, and relaxed when the flipbooks were used to deliver report text material. They paid attention to the teacher's explanation and the media used. In contrast, students in class X E-5 MAN 1 Surakarta did not pay attention to the teacher and focused on other tasks or playing with their cellphones. However, when the flipbooks were used, students actively asked the researcher about the material, followed the teaching and learning process, and expressed their opinions in English. They did not refuse the teacher's order when asked to present to the class. The study supports Medjahed (2023)'s claim that digital flipbooks are an interesting, creative, and innovative learning tool that can foster self-motivation in students' reading comprehension skills. They also help students enrich and master English vocabulary and are an effective and practical media for learning. In conclusion, digital flipbooks are highly beneficial for improving students' reading comprehension skills in English texts. Both teachers and students can utilize social media or technology to support teaching and learning activities.

The study conducted by students of class XE-5 MAN 1 Surakarta found that digital flipbooks significantly enhance classroom learning, particularly in improving students' reading comprehension in English. From a cognitive perspective, 67% of students agreed that digital flipbooks assist them in learning English, while 72% agreed that they help in

understanding new vocabulary. Additionally, 67% agreed that digital flipbooks improve their grasp of sentence structures in English texts, and 62% agreed that they help analyze questions within texts. 80% of students found the content of digital flipbooks easy to understand and remember, indicating that digital flipbooks positively contribute to students' cognitive development. In terms of affective aspects, 80% of students found the design and appearance of digital flipbooks appealing, and 85% felt more comfortable using them compared to traditional textbooks. 85% believed digital flipbooks motivated them to learn English, and 94% were satisfied with their use during the learning process. 80% felt more confident in comprehending English texts, indicating that digital flipbooks provide substantial affective benefits. In terms of conative aspects, 89% of students reported frequently using digital flipbooks as supplementary learning material outside of school hours, and 60% were interested in and explored interactive features like YouTube links, animations, and audio. 75% of students recommended digital flipbooks to their peers, took notes and summarized material, and revisited learning materials using digital flipbooks to better grasp challenging topics.

CONCLUSIONS

Digital flipbooks have been proven to significantly improve students' reading comprehension skills in English text learning. The research shows that students were more active, fun, enjoyable, and relaxed when using digital flipbooks to deliver report text material. They actively asked questions, followed the teaching and learning process, and expressed their opinions in English. The use of digital flipbooks is an innovative, effective, creative, and interesting media for teaching-learning. A student questionnaire revealed that 65% of students found digital flipbooks interesting for learning English, and over 40% agreed that they are effective in improving reading comprehension skills. Flipbooks can also help students identify main ideas, supporting ideas/details, explicit meaning, implied content, and enrich their vocabulary. Additionally, digital flipbooks can foster students' self-motivation to be more active and diligent in improving their reading comprehension of English texts.

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