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The effect of flipbook-based digital books on elementary school students' interest in learning

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Abstract

In school, interest plays a crucial role in students' learning activities because when students have a high interest in learning, it contributes to their happiness. This study aimed to examine the impact of flipbooks on students' learning interests in elementary schools. The research employed a pre-experimental design known as the One-Group Pretest-Posttest Design. This research was conducted at two schools in Indonesia, that is, State Elementary School 1 Tumenggungan Lamongan and Mulyoagung I State Elementary School Tuban. The data collection technique employed was a questionnaire, and the data analysis was conducted using the Paired Samples T-Test. The findings revealed that students' interest in learning was already good before using flipbooks. However, their interest significantly improved to a very good level after incorporating the use of flipbooks. These results indicate a strong and significant relationship between using flipbooks and students' learning interests.

Keywords: Digital book; flipbook; Interest in learning; learning; students

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1. Introduction

Students need to possess a genuine interest in learning to achieve the learning objectives set by their teachers. However, the transition to online learning has resulted in a decline in students' interest in learning, evident by their lack of active participation during lessons (Ramadhani & Siregar, 2021). Several factors contribute to this reduced interest. Previous studies have indicated that one such factor is the teacher's approach to instruction, whereby they rely solely on government-issued textbooks and worksheets without utilizing additional learning resources (Putri et al., 2019). The use of instructional media has been recognized in various studies as a means to enhance students' interest in learning. Such media have the potential to foster enthusiasm for learning, capturing and maintaining students' attention throughout the lesson with the aid of visual aids and instructional videos (Elpira & Ghufron, 2015). Furthermore, aside from technology-based media, traditional forms of media can also enhance students' interest in learning. Research has shown that students' interest in learning diminishes during online learning, as indicated by their reduced levels of enjoyment, involvement, interest, and attention (Santika et al., 2020). Additionally, external and internal factors play a significant role in influencing students' interest in learning during online education. Alongside learning interests, attitudes also hold a crucial position for students.

The relationship between students' interests and attitudes is closely interconnected. If students possess a strong interest in learning, it has the potential to influence their attitudes, and conversely, a positive attitude can enhance their interest in learning. This phenomenon aligns with previous research findings that concluded, "A favorable student attitude has a positive impact on their learning interest at Keca Elementary School, implying that a good attitude among students can amplify their desire to learn" (Riwahyudin, 2015). Repeatedly exhibited attitudes shape the character of students. However, the character of students has experienced a decline during online learning. Previous research has indicated that student character deteriorated during the pandemic, with only creative values witnessing an increase due to the integration of technology into students' lives (Massie & Nababan, 2021). The causes of this decline include insufficient teacher and parental supervision, a lack of self-awareness, difficulties in adapting, and advancements in technology. The limited focus on assigning tasks by teachers without providing adequate teaching materials to enhance student character contributes to the weakened character development observed during online learning.

Several studies have not discovered the creation of educational materials using flipbooks to enhance students' interest in learning. This investigation holds significance due to the advancement of digital books, as flipbooks have a positive impact. Ultimately, they allow students to derive pleasure from reading and cultivate an increased enthusiasm for learning through the introduction of visually appealing books. Previous research on flipbooks has also demonstrated highly satisfactory expert assessments and positive feedback from teachers and students. Consequently, the resulting e-module produced using the kvisoft flipbook application was deemed viable and suitable for further development (Wibowo & Pratiwi, 2018). The utilization of interactive books as teaching materials remains largely unexplored, as there is currently no guidance available for teachers to create flipbooks tailored specifically for elementary school students.

Based on the preliminary study conducted in several elementary schools, it was found that numerous teachers have yet to create interactive flipbook teaching materials. These interactive flipbooks are a component of electronic-based teaching materials that captivate students' attention. There is a potential for e-learning to replace traditional classroom learning to enhance system interactivity, personalize the learning experience, and ensure continuous student engagement (Bhat et al., 2018). One of the applications of creative media is the utilization of flipbooks, which involve the development of e-books as an alternative learning medium (Diani et al., 2018). A flipbook can be described as a form of classic animation created by stacking sheets of paper, resembling a thick book, with each page depicting a progressive process that appears to be in motion or animated

(Kurniawan et al., 2015). In essence, a flipbook can be seen as an electronic book that can incorporate videos and animations, thereby capturing students' interest in reading and offering portability for learning anywhere.

The flipbook maker tool is a reliable software specifically designed to convert PDF files into dynamic digital publications or digital books, as stated by Mulyaningsih et al. (2013). This process of creating flipbooks involves using an online application found at Flippingbook (n.d.). After designing and creating books in PDF format, they are imported into the application, and videos are added. As a result, when the book is opened, the content appears lifelike through the embedded videos.

Flipbooks can be presented in an electronic format that supports interactive simulations by combining elements such as animation, text, video, images, audio, and navigation. This interactive approach enhances student engagement and makes learning enjoyable and captivating, as mentioned by Diani et al. (2018). The use of flipbooks enhances the reading experience for students. In a previous study, a kvisoft flipbook maker-based learning medium was developed and considered viable, with a media validation score of 86.67% (Fonda & Sumargiyani, 2018).

Flipbooks offer several advantages. They can present learning materials through words, sentences, and pictures, and can be enhanced with colors to capture students' attention. Flipbooks are easy and cost-effective to create, portable for convenient access anywhere, and promote increased student involvement in learning activities (Rahmawati et al., 2017). Furthermore, flipbooks prove valuable in facilitating the comprehension of abstract concepts or events that are challenging to demonstrate in a classroom setting. The development of interactive flipbooks involves combining e-books with videos, and their use has been shown to enhance student motivation by enabling students not only to read but also to interact with their electronic books, thereby facilitating the learning process.

The findings of a survey conducted by researchers in October, involving 13 elementary school teachers from Surabaya, revealed that 92.4% of the teachers expressed a need for interactive flipbook teaching materials. Additionally, 7.7% of the teachers specifically required online textbooks (flipbooks) with interactive videos and customized teaching materials to cater to students' needs. Among the respondents, 84.6% expressed a strong need for such materials, while 7.7% indicated a moderate need, and another 7.7% expressed a need for a guidebook on creating online textbooks with interactive videos and tailored teaching materials. These survey results were supported by the testimony of an individual referred to as "Mr. N," who emphasized the importance of digital flipbook books in Civics lessons, stating that such teaching materials captivate students' interest and prevent boredom (WG1.14-10-2021).

A similar feeling was expressed by "Mrs. D," an elementary school teacher who highlighted the necessity of interactive teaching materials to engage students in learning activities. She emphasized that appropriate learning media can enhance the quality and effectiveness of teaching while fostering a pleasant atmosphere for students. Furthermore, she noted that students could also utilize flipbooks to review the material independently at home. In the present era, flipbook media aligns well with current needs, as it can incorporate text, numbers, images, animations, and videos.

1.1. Purpose of study

Based on these research findings, the researchers plan to conduct experimental research to investigate the impact of flipbooks on students' learning interests in elementary schools. The study aims to accomplish three objectives: 1) analyze the learning interests of elementary school students before using flipbooks, 2) analyze the learning interests of elementary school students after implementing flipbooks, and 3) analyze the influence of flipbooks on students' learning interests in elementary schools.

2. Materials and Method

The research methodology employed in this study is quantitative. Specifically, it utilized a pre-experimental research approach with the One-Group Pretest post-test design. This design involved a single experimental group, which underwent a pre-test (O1) to establish the initial state. Subsequently, a treatment (X) was administered, followed by a post-test (O2) to assess the final outcome.

2.1. Participants

The research was conducted at two schools in Indonesia: State Elementary School 1 Tumenggungan Lamongan and Mulyoagung I State Elementary School Tuban. There were 26 participants from Mulyoagung I State Elementary School Tuban, and 15 participants from Tumenggungan Lamongan State Elementary School 1.

2.2. Data collection instrument

In this study, data collection techniques employed a questionnaire as the primary tool. The Likert scale was utilized to measure student learning interest, consisting of 12 questions. The indicators of learning interest in this study encompassed four dimensions: 1) students' feelings of enjoyment, 2) student interest, 3) student attention, and 4) student engagement

2.3. Data analysis techniques

To determine the differences in students' learning interests before and after using flipbooks, data analysis techniques employed the Paired Samples t-test, assuming that the data followed a normal distribution and were homogenous. The analysis included two prerequisite tests: the normality test and the homogeneity test. The normality test aimed to assess whether the sample originated from a normally distributed population, specifically examining the distribution of student test data scores. The Kolmogorov-Smirnov test was utilized for the data normality test, with a significance level set at $\alpha = 0.05$. The normality test was conducted using the SPSS 23 statistical program.

Regarding hypothesis testing, the criterion for rejecting the null hypothesis (H0) was based on the P-value. If the P-value $< \alpha$, then H0 was rejected; if the P-value $\geq \alpha$, then H0 was accepted. In the SPSS 22 program, the term "significance" is used, which is abbreviated as "sig" and represents the P-value (Sugiyono, 2013: 257). The results of the normality test can be observed in Table 1.

Tabel 1
One-Sample Kolmogorov-Smirnov Test

		Pretest of Mulyoagung Public Elementary School	Pretest of Tumenggungan Public Elementary School
N		26	15
Normal Parameters ^b	Mean	12,3462	14,2667
	Std. Deviation	1,74224	2,15362
Most Extreme Differences	Absolute	,185	,184
	Positive	,133	,149
	Negative	-,185	-,184
Test Statistic		,185	,184
Asymp. Sig. (2-tailed)		,023 ^c	,183 ^c

The outcome of the normality test indicated that the distribution was not normal, as the significance value was 0.200 or the P-value was greater than 0.05. Therefore, it can be inferred that the data did not originate from a normally distributed population. On the other hand, the purpose of the homogeneity test was to assess whether the sample came from a homogeneous population. The results of the homogeneity test are presented in Table 2.

Table 2
Test of Homogeneity of Variances

		Levene			
		Statistic	df1	df2	Sig.
Pretest Control Class	Based on Mean	,277	1	39	,602
	Based on Median	,187	1	39	,667
	Based on the Median and with adjusted df	,187	1	37,770	,668
	Based on trimmed mean	,354	1	39	,555

Table 2 indicates that the significance value is greater than 0.05, suggesting that the data is homogeneous. Both the normality test and the homogeneity test have met the requirements. The results of these prerequisite tests confirm that the data is normally distributed and homogeneous. Consequently, parametric statistics, specifically the Paired Samples t-test (paired t-test), were employed for data analysis. The data analysis process was conducted using SPSS 23 software.

3. Results

3.1. Interest in learning elementary school students before using flipbook

Students can be said to have an interest in learning if there are several signs or indicators. Indicators can be interpreted as monitors that can provide clues. Indicators of student interest in learning include feelings of pleasure, student interest, student involvement, diligence in learning and doing assignments, and diligent and disciplined in learning (Pratiwi & Bernard, 2021). Indicators in measuring student learning interest are feelings of pleasure, attention, interest, and student involvement (Ramadhani & Siregar, 2021). Indicators of student interest in learning are 1) feelings of pleasure, 2) student interest, 3) student attention, and 4) student involvement (Rahmi et al., 2020). Indicators of student interest in learning can be in the form of feeling happy, interested, enthusiastic, liking learning, the enthusiasm of students to always learn, and the participation activities carried out by students in participating in learning activities in class. The results of the research related to the effect of flipbooks on the learning interests of elementary school students. The results of the study before students used flipbooks are seen in Table 3:

Table 3
The average percentage of student's interest in learning before using a flipbook

Elementary School Name	Not Good	Fairly	Good	Very Good
Public Elementary School Mulyoagung I	0%	15,38%	84,62 %	0%
Public Elementary School 1 Tumenggungan Rata-rata	0%	6,67%	60%	33,33%
	0%	11,03%	72,31%	16,67%

Table 3 presents the learning interests of grade 1 students at Public Elementary School 1 Tumenggungan Lamongan before the introduction of digital books based on flipbooks. Prior to using flipbooks, the students' learning interest was categorized as 15.38% sufficient and 84.62% good. During this period, the students relied on regular textbooks for their studies. The data reveals that 6.67% of students found the learning materials sufficient, 60% considered them good, and 33.33%

found them very good. On average, students displayed a moderate level of interest in learning before the introduction of flipbooks.

The combined average interest in learning across both schools was 11.025% in the moderate category, 72.31% in the good category, and 16.67% in the very good category. The students' interest in learning fell within the "Good" and "Sufficient" categories before utilizing flipbooks. This is attributed to the lack of engaging reading materials. To enhance student interest in learning, teachers should implement various strategies, including 1) adopting a warm and cooperative attitude, 2) initiating impressive learning activities, 3) employing contextual approaches, 4) diversifying teaching methods, 5) utilizing learning media, 6) incorporating ice-breaking activities to alleviate boredom, and 7) providing rewards (Putri et al., 2019). By implementing these strategies, teachers can effectively increase student interest in learning. Teachers need to demonstrate care, warmth, and cooperation to foster a nurturing environment for students. Additionally, starting lessons in an impactful manner can generate a sense of enjoyment in students and encourage independent learning.

Teachers must also master digital, the ability to use and create interactive media, and compile media that has lots of illustrations that are easy to understand. Important components in learning, one of which is the availability of good textbooks to guide students to think independently (Hazimah et al., 2021). With the textbook used by the teacher, it will be able to increase student learning interest.

3.2. Learning interest of elementary school students after using Flipbook

Students who experience feelings of pleasure are not driven by a sense of obligation to learn. Student interest is characterized by an attraction towards a particular object or person, which is internally stimulated. Student attention refers to their ability to concentrate and engage in observing and comprehending information, with high attention indicating a tendency to be attentive. Student involvement encompasses activities or participation in various educational tasks. This indicator of interest in learning plays a significant role in motivating students to engage in the learning process.

Moreover, student interest tends to grow when there is a clear necessity or demand. As stated by Bursztyn et al. (2017), "There is a clear need for learning experiences in introductory classes that increase the interest of students to inspire them to want to learn more about geoscience." When students perceive a need for learning and are provided with engaging classroom experiences, their interest in learning expands, thus inspiring them to pursue further knowledge. The average level of student learning interest before utilizing a flipbook can be observed in Table 4.

Table 4

The average percentage of student's interest in learning after using a flipbook

Elementary School Name	Not Good	Fairly	Good	Very Good
State Elementary School Mulyoagung I	0 %	3.85%	65.38%	30.77%
State Elementary School 1 Tumenggungan	0%	0%	33.33 %	66.67%
Average	0%	1.93%	49.36%	48.72%

In Table 4, the student's interest in learning at Mulyoagung 1 State Elementary School after using the flipbook was 3.85% fair, 65.38% good, and 30.77% very good. Meanwhile, the student's interest in learning at Tumenggungan Lamongan State Elementary School after using the flipbook was 33.33% good and 66.67% very good. The average percentage of students' interest in learning from both schools after using flipbook shows 1.93% fair, 49.36% good, and 48.72% very good. There is a significant increase in students' interest in learning before and after using flipbooks. The implementation of technology by teachers is necessary to conduct educational activities in class

based on students' interests and abilities. Teachers should strive to create certain conditions so that learning becomes a need for students by developing teaching materials that are attractive to them. With attractive teaching materials, students can feel happy, get satisfaction from learning, and easily understand the material presented by the teacher.

3.3. The effect of flipbooks on students' learning interest in elementary school

The results of the research conducted in two elementary schools, namely Tumenggungan Elementary School 1 and Mulyoagung I Elementary School, can be seen in Table 5 below:

Table 5
Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	Pretest of Mulyoagung public elementary school	12,3462	26	1,74224	,34168
	Posttest of Mulyoagung public elementary school	14,6154	26	2,09908	,41166
Pair 2	Pretest of Tumenggungan public elementary school	14,2667	15	2,15362	,55606
	Posttest Tumenggunagan public elementary school	15,7333	15	1,53375	,39601

Table 5 shows the average values before using the flipbook in Mulyoagung I Elementary School were 12.3 with a standard deviation of 1.74, while after using the flipbook, the average increased to 14.6 with a standard deviation of 2.09. The same thing happened at Tumenggungan Elementary School with an average value before using a flipbook of 14.27 with a standard deviation of 2.15. After using the flipbook, the average increased to 15.73 with a standard deviation of 1.534. This shows that the student's interest in learning at both elementary schools increased after using the flipbook. The level of correlation before and after using the flipbook can be seen in Table 6 below:

Table 6
Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	Pretest of Mulyoagung public elementary school & Posttest of Mulyoagung public elementary school	26	,847	,000
Pair 2	Pretest of Tumenggungan public Elementary school & Posttest Tumenggunagan public Elementary school	15	,823	,000

Table 6 displays the correlation values for Public Elementary School 1 Mulyoagung, indicating a very strong relationship of 0.847. The significance value of 0.000 signifies a significant impact before and after the utilization of digital flipbook-based books, further affirming the strong relationship. Similarly, Public Elementary School Tumenggungan exhibits a correlation value of 0.823, denoting a very strong relationship before and after employing the digital flipbook-based books. The significance value of 0.00 indicates a highly significant effect resulting from the usage of digital flipbook-based books. From the aforementioned table, it can be concluded that the implementation of digital flipbook-based books has a substantial and significant influence on enhancing student interest in learning at the elementary school level. To comprehend the disparity in student learning interest before and after utilizing the digital flipbook-based books in both schools, please refer to Table 7.

Table 7
Paired Samples Test

		Paired Differences				t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower Upper			
Pair 1	Pretest of Mulyoagung public elementary school - Posttest of Mulyoagung public elementary school	-2,26923	1,11562	,21879	-2,71984 -1,81862	-10,372	25	,000
Pair 2	Pretest of Tumenggungan public elementary school - Posttest Tumenggungan public elementary school	-1,46667	1,24595	,32170	-2,15665 -1,77668	-4,559	14	,000

Table 7 illustrates the significance value for Public Elementary School Mulyoagung as $0.00 < 0.05$, indicating a notable distinction in students' learning interest between those using flipbooks and those who do not. Similarly, in Public Elementary School Tumenggungan, the significance value is also $0.00 < 0.05$, signifying a significant difference before and after the utilization of flipbooks.

4. Discussion

Flipbooks offer the potential to present interactive simulations in an electronic format by seamlessly integrating animation, text, video, images, audio, and navigation. This interactive approach enhances student engagement, making the learning process more enjoyable and captivating their attention (Diani et al., 2018). Additionally, flipbooks possess several advantages. They can effectively convey learning material through the integration of words, sentences, and pictures. The inclusion of colors further enhances their appeal and draws students' attention. Moreover, flipbooks are easy to produce, cost-effective, portable, and facilitate increased student engagement in learning activities (Rahmawati et al., 2017).

Another benefit of flipbooks is their ability to enhance students' understanding of abstract concepts or events that may be challenging to present solely in a classroom setting. To foster interest in learning, various strategies can be employed, including collaboration between schools and parents. This collaboration aims to ensure that parents actively participate in socializing their children within the family, school, and community, thus contributing to their overall educational experience (Rohman et al., 2021). It is important to note that increasing student interest requires not only the efforts of teachers but also collaborative interactions between students, teachers, peers, and the wider community.

The incorporation of technology by educators is necessary to conduct educational activities in the classroom, catering to students' interests and abilities. Teachers should endeavor to establish favorable conditions, enabling learning to become a necessity for students. This can be achieved by developing engaging teaching materials that capture students' attention. Through the creation of captivating teaching materials, students can experience joy, derive satisfaction from learning, and comprehend the delivered content effortlessly.

Another external factor that influences students' inclination to learn is the availability of learning facilities. The utilization of multimedia facilities also impacts students' interest in learning. Multimedia, coupled with interactive concepts, actively engages students and amplifies their

enthusiasm for learning in an environment centered around students' needs (Wangid et al., 2021). The employment of interactive multimedia likewise fosters an increased interest in learning among students engaged in student-based learning approaches.

Figure 1

Flipbook for 4th-grade elementary school



Figure 1 exemplifies a flipbook-based teaching material for Pancasila Education. This instructional resource incorporates embedded videos, allowing students to interact with the content while reading. According to Aulia and Wuryandani (2019), elementary school students exhibit a heightened interest in learning when presented with media-rich illustrations. They are drawn to visually engaging learning materials that capture their attention, as a greater number of illustrations make the content more captivating and comprehensible.

For elementary school students, interactive media with abundantly illustrated pictures that are easily comprehensible is crucial (Aulia & Wuryandani, 2019). These students demonstrate an interest in learning through various signs or indicators. These indicators can be seen as guides that provide insights into students' enthusiasm for learning, such as experiencing pleasure, displaying interest and engagement, demonstrating diligence in completing assignments, and exhibiting discipline and commitment to their studies (Pratiwi & Bernard, 2021). Students' interest in learning is influenced by these indicators. The research conducted in two public elementary schools, namely Tumenggungan Lamongan 1 and Mulyoagung I Tuban in Indonesia, yielded the following findings.

One effective method to enhance students' learning interest across various studies is through the use of learning media. Several studies have suggested that media has the potential to ignite students' passion for learning and maintain their focus throughout the lessons. Engaging media includes clear illustrations and activity examples presented through videos (Elpira & Ghufron, 2015). Besides technology-based media, traditional media can also contribute to increased student learning interest.

Flipbooks can be presented in electronic formats, incorporating interactive simulations that combine animation, text, videos, images, audio, and navigation. This interactive approach makes learning more enjoyable and captures learners' attention (Diani et al., 2018). Flipbooks not only enhance the pleasure of reading for students but also offer several advantages. They present learning materials through words, sentences, and images, which can be enriched with colors to make them visually appealing. Additionally, flipbooks are easy to create, cost-effective, portable, and encourage students to engage in learning activities (Rahmawati et al., 2017). Another advantage of flipbooks is their ability to help students grasp abstract concepts or events that cannot be easily understood through traditional methods. Interactive flipbooks involve a combination of e-books and interactive videos. Their use represents an innovative learning solution that boosts students' motivation to learn, as they can interact with their electronic books, facilitating their learning process.

Learning facilities are among the external factors that influence students' interest in learning. The utilization of multimedia facilities also plays a role in shaping students' interests. Multimedia, with its interactive concepts, engages and enhances students' interest in a student-centered learning

environment (Wangid et al., 2021). The incorporation of interactive multimedia can further increase students' interest in learning within student-centered educational approaches.

Elementary school students are particularly stimulated by learning materials that contain abundant illustrations. Aulia and Wuryandani (2019) state that "elementary school students have an interest in interesting learning media with images that will be able to attract the attention of students. The more illustrations, the more interesting it is for students and easier to understand." Hence, interactive media with numerous illustrations that are easily comprehensible is essential for elementary school students. Flipbooks are well-suited for the characteristics of elementary school students who enjoy visual elements and interactive experiences.

In addition, electronic learning has the potential to replace traditional classroom learning by enhancing system interactivity, personalization, and continuous learner engagement (Bhat et al., 2018). Flipbooks, as a form of creative media, serve as an alternative learning tool, evolving from e-books (Diani et al., 2018). The use of interactive flipbooks fosters students' creativity, as flipbooks are a type of classic animation created by stacking pages depicting sequential processes that come to life when flipped (Kurniawan et al., 2015). Flipbooks offer an intriguing presentation of content accompanied by animations and can be easily stored on smartphones or laptops, enabling convenient portability.

The adoption of flipbooks introduces a unique perspective and experiential approach to information. Interactive media encompasses various formats, including text, hypertext, sound, images, animations, videos, and graphics (Dewa et al., 2020). By leveraging flipbooks, student learning is facilitated through a distinctive packaging that incorporates images, animations, and videos, effectively captivating students' interest in learning and reading.

E-learning presents the possibility of replacing traditional classroom learning, promoting system interactivity, personalization, and continuous learner engagement. Flipbooks serve as a creative alternative for learning media. Interactive flipbooks stimulate students' creativity, as they are reminiscent of classic animations made from stacks of paper resembling thick books. Each page portrays a process that appears to move or animate. Flipbooks are visually appealing, complemented by animations, and can be stored on mobile phones/smartphones or laptops, ensuring easy accessibility. Implementing digital flipbooks in learning is essential to encourage students to actively participate in the learning process and achieve academic success in school.

The utilization of flipbook media in learning can improve students' learning outcomes, primarily driven by their interest in the captivating and interactive nature of flipbooks compared to traditional printed books. Flipbooks serve as interactive multimedia objects that encompass various formats, such as text, sound, images, animation, video, and graphics. Their use simplifies the learning experience for students, as flipbook-based learning materials are presented in a unique format, accompanied by captivating visuals, animations, and videos that capture students' interest in both learning and reading.

Overall, incorporating flipbook-based learning materials leads to improved learning outcomes and increased student interest in learning. The advent of the latest technology provides an excellent opportunity to utilize digital books in elementary school education and distance learning. The implementation of flipbooks in elementary school education is driven by the following reasons

- a. Flipbook-based learning materials are fun for students with attractive picture and video displays.
- b. The use of flipbooks can increase students' learning motivation.
- c. The use of flipbooks can increase student interaction.
- d. The use of flipbooks can increase student creativity in the classroom.
- e. The use of flipbooks can improve students' learning outcomes and interest in learning.

Utilizing flipbooks enhances the enjoyment of reading for students. Previous research has

developed a learning medium based on the Kvisoft flipbook maker, which has been deemed feasible with a media validation result of 86.67%. Flipbooks offer several benefits, including the presentation of learning materials through words, sentences, and images. They can be enriched with colors to captivate students' attention. Flipbooks are easy to create, cost-effective, portable, and foster increased student engagement in learning activities. Additionally, flipbooks assist in improving students' understanding of abstract concepts or events that may be challenging to convey in a traditional classroom setting. Here are the outlined steps for creating a digital book using flipbooks.

5. Conclusion

The findings of the study revealed that students' learning interest was at a good level before using the flipbook. However, their learning interest significantly improved and reached a very good level after incorporating the flipbook. The correlation between the use of flipbooks and students' learning interests was found to be both highly significant and strongly positive. Similarly, at Tumenggungan Elementary School, a correlation value of 0.823 indicated a very strong relationship between the pre-and post-flipbook usage periods.

The utilization of flipbooks exerted a substantial and meaningful influence on enhancing students' learning interest in elementary school. Therefore, it is important to note that this study was limited to schools equipped with supportive facilities and infrastructure, such as computers/laptops, and the assistance of an LCD projector for displaying flipbooks.

It can be implied that the use of flipbooks has a significant positive effect on students' learning interests in elementary school. The findings suggest that incorporating flipbooks into educational practices can effectively enhance students' engagement and enthusiasm for learning. It also implies that educators and schools should consider utilizing flipbooks as a valuable tool to promote student interest and improve the overall learning experience. Finally, having supportive facilities and infrastructure in place can fully leverage the benefits of flipbook-based learning. It also suggests the need for further research to explore the potential impact of flipbooks on other aspects of student development, such as academic performance and character building.

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