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Interactive Electronic Book Learning Media: Social Science Learning Motivation of Students

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ABSTRACT

Purpose of the study: This study aims to develop, validate, and evaluate the effectiveness of Interactive Electronic Book Media—referred to as *Bukelin*—to enhance student motivation in learning IPAS (Ilmu Pengetahuan Alam dan Sosial) among fifth-grade elementary school students

Methodology: The research adopts the Research and Development (R&D) approach, utilizing the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). The participants were Grade V students of Elementary School Lemberang, Banyumas. Data collection involved a combination of instruments, including tests, interviews, observations, questionnaires, and documentation to comprehensively assess feasibility and effectiveness.

Main Findings: The feasibility test results showed that the Interactive Electronic Book Media was well-received, with a 71% feasibility score from media experts (categorized as "eligible") and a 90% score from material experts (categorized as "very feasible"). Effectiveness was measured through pretest and posttest scores, resulting in an N-gain value of 0.7096, indicating a high increase in student motivation. Students demonstrated improved engagement, enthusiasm, and autonomy during IPAS learning sessions with Bukelin.

Novelty/Originality of this study: Unlike conventional printed textbooks, Bukelin integrates interactive multimedia elements, including images, audio, and video, creating a dynamic, student-centered learning experience. This digital approach not only supports independent and active learning but also aligns with current technological trends in education. The study contributes to the limited research on multimedia integration in primary school contexts in Indonesia and offers a practical solution to enhance learning motivation through interactive digital tools. These findings suggest that well-designed digital media can significantly enrich the elementary learning experience.

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1. INTRODUCTION

Education serves as the fundamental foundation for shaping the abilities, attitudes, and character of students. It plays a crucial role in optimizing each individual's potential to become competent, pious, and socially responsible citizens who contribute positively to the nation and state [1]. At the elementary school level, one of the core subjects that supports this goal is *Ilmu Pengetahuan Alam dan Sosial* (IPAS), which integrates natural and social sciences. IPAS encourages students to explore the interaction between living and non-living things in

their environment, aiming to cultivate curiosity, critical thinking, and problem-solving skills relevant to daily life [2].

To realize the goals of IPAS learning, teachers are expected to create a classroom atmosphere that is interactive, engaging, and motivating. Fun learning experiences help students feel comfortable and involved in the learning process, which in turn allows their cognitive, emotional, and social potential to flourish [3]. However, in reality, there are still many schools that face challenges in creating such a learning environment. Teachers still heavily depend on printed textbooks and conventional teaching methods. Their limited mastery of technology leads to monotonous classroom experiences, resulting in student boredom and reduced learning effectiveness [4]-[7].

A similar situation was found through observations in Grade V of Elementary School Lemberang. The science learning process in this school still heavily relies on printed books as the primary source of information, and the media used during instruction lacks variety and interactivity. Technological tools have not yet been maximally utilized, resulting in teacher-centered learning where students show low motivation, limited engagement, and a lack of enthusiasm in the learning process. Learning motivation is a crucial factor that influences student success. It refers to the internal drive that guides, energizes, and sustains student behavior towards achieving learning goals [8]-[11]. Motivated students tend to be more focused, resilient in facing challenges, and consistent in completing learning tasks [12]-[16]. Therefore, it is essential for educators to implement strategies that can increase students' learning motivation, particularly by utilizing technology-driven and student-centered learning media.

One of the most promising innovations in this area is the use of interactive learning media, which integrates visual, auditory, and kinesthetic elements to actively engage learners. These media act as a bridge between educators and students, encouraging two-way communication and active learning [17]-[21]. Interactive learning materials are known to boost student attention and motivation, making learning experiences more enjoyable and meaningful [22]-[25]. With the advancement of digital technology, interactive electronic books (e-books) have emerged as a powerful tool in education. These interactive e-books or *Buku Elektronik Interaktif* (Bukelin) are digital resources that incorporate multimedia elements such as animations, videos, sounds, hyperlinks, and gamified activities [26]-[29]. Research suggests that interactive e-books can help visualize abstract concepts, encourage exploration, support collaboration, and stimulate critical thinking, all of which can significantly enhance students' motivation and engagement [30]. Based on the above considerations, the development of Bukelin (Interactive Electronic Book) for IPAS learning presents a viable solution to address the lack of engaging learning media and low student motivation. Bukelin integrates various features—text, visuals, audio, video, and interactive quizzes into a single digital learning resource, making learning experiences more dynamic and enjoyable. This innovation not only aligns with the needs of 21st-century learners but also supports the goals of fun and meaningful learning as emphasized in the *Merdeka Belajar* curriculum.

Although several studies have explored the use of digital media, contextual learning, and interactive tools in primary education, there is still limited research specifically addressing the development and effectiveness of interactive e-books (Bukelin) in IPAS learning at the elementary level, particularly in increasing students' learning motivation. Most existing studies either focus on science or social studies separately, without an integrated IPAS approach. Moreover, few studies have tested the practicality and effectiveness of multimedia-rich e-books tailored to the needs of young learners in rural or technology-challenged contexts. Therefore, this study seeks to fill that gap by designing and evaluating the feasibility, practicality, and effectiveness of Bukelin as an interactive learning media to enhance student motivation in IPAS learning. In line with this, the objective of the study is to develop and test the feasibility and effectiveness of Bukelin-based learning media in improving motivation among fifth-grade elementary school students. The results of this study are expected to provide insights into how digital innovation can transform IPAS learning into a more student-centered, interactive, and motivational experience supporting better learning outcomes and student engagement in the digital era.

2. RESEARCH METHOD

The procedures used in this study are known as research and development, or R&D. Techniques for research and development are employed to create a specific product and evaluate its efficacy [31]. This study applies the ADDIE Branch development model, which consists of the Analyze, Design, Develop, Implement, and Evaluate [32]. The ADDIE model is the most complete, structured, flexible, and easy to implement development model compared to other models [33], [34]. The steps in ADDIE's development model are. *Analyze*. At this stage, an observation is made and a questionnaire is distributed to the needs of teachers and students. *Design*. At this stage, the concept of learning media is designed according to the analysis of the needs of teachers and students. *Develop*. At this stage, the researcher develops a media prototype based on the design that has been made. *Implement*. At this stage, the learning media that has been created and validated will then be tested in the field. *Evaluate*. Evaluation is carried out to determine the quality of the media before and after implementation and becomes a reference in product revision. The population in this study is all 20 students of

the VA class of Elementary School Lemberang with saturated samples. Data collection techniques are in the form of tests, needs questionnaires, response questionnaires, and interviews and observations. The data analysis techniques used were normality test, N-Gain test, and paired sample t-Test with the help of the SPSS version 23 application.

The instrument in this study is in the form of a questionnaire. The questionnaires used consisted of questionnaires for teacher and student needs, expert validation questionnaires, learning motivation questionnaires, and teacher and student response questionnaires. Needs questionnaires, and teacher and student response questionnaires use "yes" and "no" answer types. Meanwhile, the expert validator questionnaire and the student learning motivation questionnaire use the Likert scale. Respondents were asked to choose one of the answer options available in the following categories.

Table 1. Likert Scale

Value	Category
5	Excellent
4	Good
3	Enough
2	Not Good
1	Bad

Bukelin's eligibility was measured based on a questionnaire of media experts and material experts with the following categories.

Table 2. Member Rating Scale

Eligibility Percentage	Category
81% - 100%	Highly Worth It
61% - 80%	Proper
41% - 60%	Less Worthy
21% - 40%	Not Eligible
0% - 20%	Very Unworthy

Bukelin effectiveness is measured based on the increase in student learning motivation derived from pretestss and posttestss. The aspects used in measuring student learning motivation are [35].

Table 3. Aspects of Student Learning Motivation

Yes	Aspects
1	Have a high passion
2	Energetic
3	Have a high sense of curiosity or curiosity
4	Able to "walk alone" in doing tasks
5	Have confidence
6	Has a higher concentration power
7	Difficulties are considered a challenge to overcome
8	Have high patience and fighting power

The score obtained is then analyzed using the following formula [36]:

$$Skor\ total = \frac{\sum skor\ yang\ diperoleh}{\sum skor\ maksimum}\ x\ 100 \quad \ldots (1)$$

The total score results are categorized based on the following criteria [37].

Table 4. Student Learning Motivation Scale

Percentage of Student Learning Motivation	Category
20% - 36%	Very Low
37% - 52%	Low
53% - 68%	Keep
69% - 84%	Tall
85% - 100%	Very High

To find out how much the students' motivation to learn is increased, pretests and posttests scores are calculated using the following formula.

$$N - Gain = \frac{(Posttest - Pretest)}{(100 - Pretest)} \quad \ldots (2)$$

The results of increased learning motivation are interpreted based on the following categories [38]:

Table 4. N-Gain Level Criteria

N-Gain Value	Category
>0.70	Tall
0.30 ≤ g ≤ 0.70	Keep
<0.30	Low

3. RESULTS AND DISCUSSION

3.1. Development of Interactive Electronic Book Learning Media (Bukelin)

Analyze Stage

This stage aims to find out the gap in conditions in the field. Needs analysis is carried out at this stage to find out what is needed so that the developed media remains relevant to the characteristics of students, technological developments, learning environments, and the needs of students and teachers. The steps taken at this stage are to conduct interviews, observations, and provide questionnaires to teachers and students. From the results of interviews and observations with grade V teachers of Elementary School Lemberang, it can be seen that IPAS learning still uses learning resources in the form of printed books which causes learning to become boring so that students' motivation to learn decreases. At this stage, a questionnaire was also filled out for teachers and students with the results that teachers considered biodiversity materials important to teach, but had difficulties in delivering materials due to limited learning resources. Teachers stated that they needed additional learning media, and showed interest in the use of Interactive Electronic Books equipped with video features, animations, and interactive question exercises. In addition, teachers hope that the media developed uses communicative language and is easily accessible in learning.

Meanwhile, the results of the student needs questionnaire show that most students have difficulty understanding social studies materials only through printed books. Students feel more helped by interactive learning media and are interested in using digital media that is practical, can be accessed anytime and anywhere, and is equipped with animation features, videos, and interactive questions. Although there are some students who are not fully used to using digital media, in general students need interesting media to increase motivation and understanding of learning. Based on the results of the analysis, it can be concluded that teachers and students need digital-based learning media that is interactive, interesting, practical, and supports the understanding of the material more effectively. Therefore, the development of Interactive Electronic Books is considered important and in accordance with the needs in the field.

Design Stage

The purpose of this stage is to determine and design the product concept developed in accordance with the needs analysis that has been carried out [39]. At this stage, the concept and content of the media are systematically designed as the basis for the media development process in the next stage. The steps taken at this stage are to determine the material and learning objectives in the science subject. In Bukelin media, the material chosen is biodiversity. In addition, at this stage, Bukelin features and parts are also designed. Then, prepare a teaching module as a guideline during the implementation of media.

Develop Stage

This stage aims to develop the media that has been designed into a media that is ready to be applied in the field. Prototypes and products are produced at this stage. In the development process, validation is also carried out by media experts and material experts so that the media is suitable for application in the field [40], [41]. There are several inputs provided by media and material experts such as improvements to the cover by removing the word developer, changing the position of the developer's name, and adding information on the topic to be studied. Then, in the table of contents section, hyperlinks are added to link to certain pages. In the book guide section, it is also necessary to add navigation information. In addition, image sources and local wisdom also need to be added. The following is a display of media that has been developed and considered feasible.

Figure 1. Cover Bukelin

Figure 2. Preface and Table of Contents

Figure 3. Book Guide

Figure 4. Competencies and Material Topics

Figure 5. Subtopic Material and Content of Material

Figure 6. E-LKPD

Figure 7. Interactive Quiz

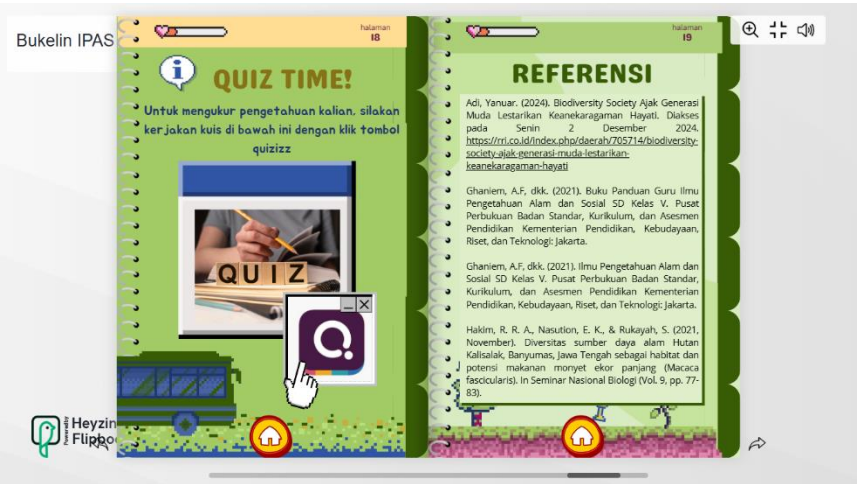

Figure 8. Evaluation and Reference

Implementation Stage

In this phase, Bukelin media is used in learning social studies in the classroom by involving students with the aim of getting feedback from the media that has been developed and knowing the obstacles that arise after the use of media. Feedback was obtained through filling out a questionnaire of teacher and student responses [42]. In addition to getting feedback, at this stage it is also carried out to test the effectiveness of Bukelin media through filling out a student learning motivation questionnaire before using the media and after using the media.

The implementation was carried out in two meetings. The first meeting was conducted on a small scale. This trial activity was carried out by learning social studies of biodiversity materials using learning media in the form of interactive electronic books (Bukelin). After a small-scale trial, several obstacles appeared, one of which was that the e-LKPD connected to Bukelin could not be accessed by students. To overcome these obstacles, the researcher changed the website that was used and accessible by students. The second meeting was applied to large groups with revised media. The same steps are taken to use Bukelin media in learning IPAS biodiversity materials.

Evaluate Stage

This stage aims to provide feedback so that the developed media can be improved based on the results of the evaluation. The final goal of this stage is to find out the achievement of development goals. The steps taken are to carry out trials in small groups and large groups, revise the media after assessments by experts, and process teacher and student response data as well as pretests and posttests results.

3.2. Eligibility of Interactive Electronic Book Media

Media Expert Validation

Assessment of the feasibility of interactive electronic book media is carried out by media experts and material experts. Each expert provides an assessment or validation to measure the feasibility of the developed media. The following are the results of the validation of media experts.

Table 5. Media Expert Validation Results

Yes	Aspects	Statement	Score	Information
1	Layout view	The color of the title letters contrasts with the background color.	4	Good
		The font size of the media title is clear.	4	Good
		The layout on the initial view is appropriate or harmonious.	3	Enough
		Suitability of shape, color and font size.	3	Enough
		The spacing between text and illustration is appropriate.	3	Enough
2	Media Quality	Not using typeface too much.	4	Good
		Clarity of the image or video displayed.	3	Enough
		Compatibility of the image with the material displayed.	4	Good
		The clarity of the sound or music makes the video interesting.	4	Good
		Clarity of audio usage.	4	Good
		Consistency of symbol or icon usage	5	Excellent
3	Use	Compatibility with the user. The media in the design is easy to use by all, including and educated. among the participating teachers	3	Enough
		Interactive Electronic Book learning media (Bukelin) can make it easier for students to master the material	3	Enough
		Interactive Electronic Book learning media is interesting and (Bukelin) attention increases students' motivation to learn to be active	3	Enough

Based on the assessment by media experts, there is one indicator that gets a score of 5 with a very good category, namely the consistency of the use of icons or symbols. Then, there are 6 indicators that get a score of 4, namely the color of the title letters contrasting from the background color, the font size of the media title is clear, not using too much typeface, the suitability of the image with the material displayed, the clarity of sound or music makes the video interesting, and the clarity of the use of audio. Other remaining indicators that get a score of 3 are the layout on the initial display that is appropriate or harmonious, the suitability of shapes, colors and font sizes, the spacing between text and illustrations is appropriate, the clarity of the images or videos displayed, the suitability with media users in the design is easy to use by all groups including teachers and students, the Interactive Electronic Book (Bukelin) learning media attracts attention and increases student learning motivation and makes students active. The results of the media feasibility assessment of the Interactive Electronic Book media received a percentage of 71% in the feasible category. Even though it gets a decent category, in the assessment of media experts there are suggestions given. These suggestions include improving and completing cover sections such as names and topics, adding links from the table of contents, adding image sources, and adding navigation instructions.

Subject Matter Expert Validation

The assessment is also carried out by material experts. The aspects assessed in the material test are the accuracy of the learning objectives, support for the learning content, images that can facilitate the achievement

of learning objectives, and the implementation of the learning process. The following are the results of the material test.

Table 6. Material Expert Validation Results

Yes	Indicators	Statement	Score	Information
1	Clarity of learning objectives	Learning objectives are clearly displayed	5	Excellent
2	Fit for learning objectives	The content of the material is in accordance with the learning objectives	5	Excellent
3	The use of language is clear and easy to understand	The language used is in accordance with the rules of the Indonesian language and is easy to understand (communicative)	4	Good
4	Suitability of the material with the characteristics of the students	The material of Indonesiaku Kaya Hayatinya on the learning media of Interactive Electronic Books (Bukelin) is in accordance with the development of student characteristics.	4	Good
5	Breadth of material	The material has been covered in its entirety in the learning media of Interactive Electronic Books (Bukelin).	5	Excellent
6	Presentation of the material	The material is presented in a concise and systematic manner	4	Good
7	Suitability of the material with the subject matter	The material presented is related to Indonesiaku Kaya Hayatinya.	5	Excellent
8	Scope of examples in students' daily lives	In the material presented, there is a connection with daily life.	5	Excellent
9	The attractiveness of the presentation of the material	The material presented is interesting for students.	4	Good
10	Pictures match the material	The images used are in accordance with the rules in society	5	Excellent
11	Images clarify the content of the material	The image used clarifies the material of Indonesiaku Kaya Hayatinya	5	Excellent
12	The material is easy for students to understand	The presentation of material can make it easier for students to understand the material	4	Good
13	Selection of learning models	The learning model chosen is appropriate.	4	Good
14	Suitability of learning activities with the learning model	Learning activities are in accordance with the learning model used (PBL).	5	Excellent
15	LKPD Procurement	The existence of LKPD motivates students to think critically and understand the material presented.	4	Good
16	Procurement of evaluation questions	The existence of evaluation questions helps teachers in measuring the level of student understanding.	4	Good

The results of media validation by material experts show that there are 8 indicators that get a score of 5 with very good criteria, namely clarity of learning objectives, suitability with learning objectives, breadth of material, suitability of material with subject matter, scope of examples in students' daily lives, drawings in accordance with the material, drawings clarifying the content of the material and suitability of learning activities with the learning model. Then, there are 8 indicators that get a score of 4 with a good category, namely the indicators of clear and easy-to-understand language use, suitability of the material with student characteristics, presentation of the material, attractiveness of the presentation of the material, material that is easy to understand by students, selection of learning models, procurement of LKPD, and procurement of evaluation questions. The results of the material feasibility assessment for the Interactive Electronic Book media received a percentage of 90% with a very feasible category.

Teacher's Response Results

The results of the questionnaire revealed that teachers responded very positively to Bukelin's media. The teacher assessed Bukelin in accordance with the CP and TP, presenting the material clearly, systematically, and interestingly. This medium is easy to use without special training, can be accessed through a variety of devices, and is able to increase students' motivation and understanding in technology-based learning.

Student Response Results

The results of the questionnaire revealed that students responded positively to the use of Bukelin. Most students find the design attractive, easy to understand, and helpful in the learning process, especially through audio, video, and interactive quiz features. The average approval reached 92%, indicating that Bukelin was accepted by students and was suitable for use in IPAS learning.

3.3. Effectiveness of Interactive Electronic Book Media

Bukelin media that has been considered feasible and improved is then applied to social studies learning. This application was carried out to test the effectiveness of Bukelin. Before learning starts, students are requested to complete a questionnaire on learning motivation. Then, learning is carried out using Bukelin media and after that students are asked to fill out a learning motivation questionnaire again. The following figure displays the learning questionnaire's results.

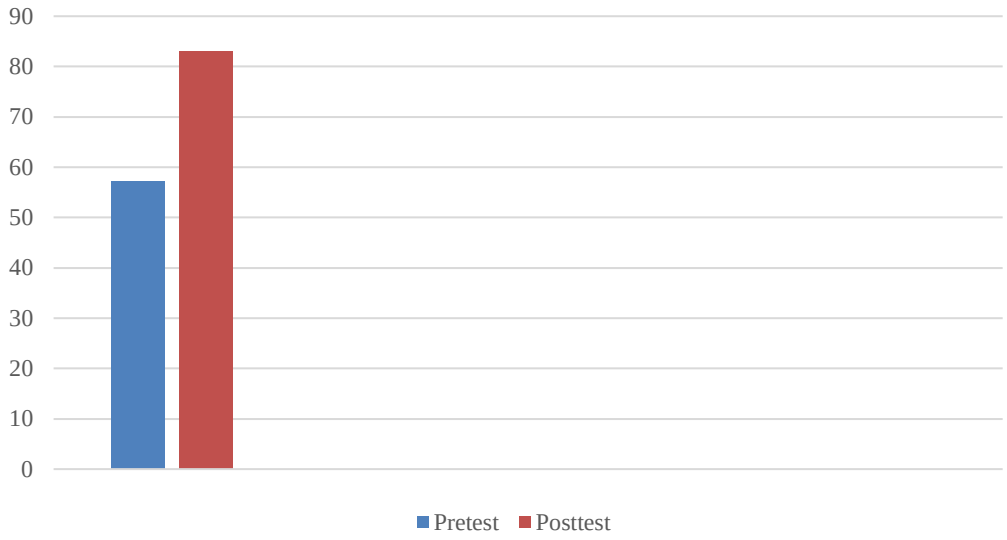

Figure 9. Average Pretests and Posttests Results

From the diagram above, it is known that before using Bukelin, students' learning motivation was at a score of 57.1 in the medium category. Then, after using Bukelin, the student's learning motivation score increased to 83.15.

Normality Test Results

The data collected in this study is in the form of the results of a questionnaire on student learning motivation before and after using learning media on biodiversity materials. The data is analyzed using a normality test to find out whether the data distribution is normal or not [43], [44]. The normality test was carried out on the results of the pretests and posttests of Elementary School Lemberang students. For this purpose, the researcher used the Shapiro-Wilk formula as a test tool for the normality distribution of data. The following are the results of the normality test on the pretestss and postests result.

Table 7. Normality Test Results

	Kolmogorov-Smirnova			Shapiro-Wilk		
	Statistics	Df	Sig.	Statistics	Df	Sig.
Pretests	.163	20	.174	.958	20	.508
postest	.184	20	.076	.953	20	.417

a. Lilliefors Significance Correction

In the normality test table there are two types of tests, namely Kolmogorov-Smirnov and Shapiro-Wilk. However, in this study, the researcher only used the results of the Shapiro-Wilk normality test. Based on the Shapiro-Wilk column, a significance value of 0.508 was obtained for pretests data and 0.417 for posttests data. Because the two significance values are greater than 0.05, it can be concluded that the pretests and posttests results are normally distributed.

N-Gain Test Results

To determine the increase in student learning motivation in learning science on biodiversity materials after using interactive electronic book media, an analysis was carried out using the N-gain test. The data used in this analysis came from the results of the pretests and posttests. The N-gain calculation is carried out by comparing the difference between posttests and pretests scores, to see how much students' motivation to learn after the use of the learning media [45], [46].

Table 8. N-Gain Test Results

Average Pretests	Posttests Average	N-Gain	Information
57.1%	86.65%	0.7096	Tall

Based on Table 8, the results of the analysis showed that the use of interactive electronic book media in 20 grade V students of Elementary School Lemberang produced an N-gain value of 0.7096. This value is in the category of high increase. This shows that Bukelin media can increase students' motivation to learn IPAS. This is supported by the statement that learning media can facilitate the understanding of the material and increase student activity during the teaching and learning process [47]-[49].

Paired Sample t-test results

The effectiveness of interactive electronic book media can be seen through the difference in the average student learning motivation score before and after the use of the media. The existence of a significant difference between pretests and posttests scores is an indicator of effectiveness. The decision-making criteria are based on significance values (Sig. 2-tailed), i.e., if the value is less than 0.05, then it can be concluded that there is a significant difference between the two data. The average analysis results were obtained through SPSS version 23.

Table 9. Results of the Average Difference Test (*Paired t-Test)*

		Paired Differences					t	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Pretests - Postest	-31.350	4.90193	1.09611	-33.64418	-29.05582	-28.601	19	.000

Based on the results of data analysis, it can be concluded that the use of interactive electronic book media has an influence on increasing students' learning motivation in science subjects in grade V of elementary school. This is evidenced by the results of the hypothesis test (t-test) which shows that the alternative hypothesis (Ha) is accepted and the null hypothesis (H0) is rejected, with a significance value of 0.00. Since the significance value is less than 0.05, it is eligible to receive Ha. Furthermore, the analysis's findings indicated that the computed t value of 28.601 was higher than the t table of 2.093, indicating a significant difference in students' motivation to learn before and after using interactive electronic book media on biodiversity materials [50]-[52].

This study introduces a significant innovation in the form of Bukelin (Buku Elektronik Interaktif)—an interactive electronic book specifically developed to improve learning motivation among fifth-grade elementary students in the integrated science-social studies subject (IPAS). Unlike conventional printed textbooks or static digital materials, Bukelin incorporates interactive multimedia elements such as audio, video, animation, and quizzes, fostering a student-centered and dynamic learning experience. The novelty of this study lies not only in the multimedia-rich content of Bukelin but also in its application within the Indonesian elementary school context, particularly addressing the lack of engaging, technology-based resources for young learners in rural or under-resourced environments. Furthermore, the research stands out by integrating both the design and validation of the media through a structured ADDIE development model and measuring its motivational impact with quantitative rigor.

The results of this research have profound implications for elementary education, particularly in the field of IPAS learning. The successful implementation and high feasibility and effectiveness scores of Bukelin suggest that interactive electronic books can significantly enhance student motivation, engagement, and autonomy in learning. From a pedagogical perspective, the study highlights the importance of adopting technology-integrated learning media to support the goals of independent, meaningful, and enjoyable learning, in line with the Merdeka Belajar curriculum. It also encourages teachers and curriculum developers to rethink traditional classroom practices and consider adopting more multimedia-supported tools to meet the needs of digital-native students. Moreover, this research underscores the necessity of preparing future educators with adequate digital literacy skills to effectively implement such innovations in real classrooms.

Despite its promising findings, the study is not without limitations. Firstly, it is conducted in a single elementary school with a relatively small sample size (20 students), which may limit the generalizability of the results across diverse educational settings. Secondly, although Bukelin was shown to improve motivation in the short term, the study does not explore the long-term impact on academic achievement or sustained behavioral change. Additionally, the success of Bukelin relies heavily on the availability of digital infrastructure, such as devices and internet access, which may not be uniformly present in all Indonesian elementary schools, particularly in remote areas. The research also does not address how teacher readiness and technological proficiency may influence the overall effectiveness of implementing such digital media.

In light of the findings, several recommendations can be proposed to maximize the impact of Bukelin and similar educational technologies. First, schools and education stakeholders are encouraged to adopt and expand the use of interactive digital learning media in IPAS and other subjects to foster student engagement. Second, it is crucial to train and support teachers in integrating technology into their pedagogy through continuous professional development programs. Third, further research should be conducted on a larger scale across diverse regions and school types to validate the effectiveness of Bukelin and explore its adaptability to various learning contexts. Finally, government and policy-makers should prioritize investment in educational technology infrastructure and the development of culturally relevant, interactive learning resources to ensure equitable access and bridge the digital divide in primary education.

4. CONCLUSION

Based on the results of the research and discussion, it can be concluded that the Interactive Electronic Book (Bukelin) developed using the ADDIE model is declared feasible and effective as a social studies learning medium for grade V elementary school students that can increase students' motivation to learn. Interactive electronic book media is considered feasible as a learning medium after going through validation and improvement according to expert input, with a feasibility percentage of 71% from media experts (feasible category) and 90% from material experts (very feasible category). Interactive electronic book media has also proven to be effective in increasing motivation to learn science in biodiversity materials for grade V students of Elementary School Lemberang. This can be seen from the increase in the average score of student learning motivation, which is from 57.1 in the pretests to 86.65 in the posttests. In addition, the results of the N-gain analysis showed a value of 0.7096 which was in the high category, and the results of the t-test showed a significance value of 0.00 (<0.05), so that Ha was accepted and Ho was rejected.

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