



Anyflip-Assisted E-Book to Enhancing Elementary School Students' Motivation

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ABSTRAK

Media pembelajaran yang tepat harus dikembangkan untuk meningkatkan motivasi belajar dan pemahaman konsep siswa. E-book diperlukan sebagai salah satu bentuk media pembelajaran untuk menyajikan konten terkait mata pelajaran dengan soal evaluasi yang dapat dikerjakan siswa. Tujuan utama penelitian dan pengembangan e-book berbantuan Anyflip ini adalah untuk meningkatkan motivasi siswa. Penelitian ini menggunakan model ADDIE yang terdiri dari lima tahap: Analisis, Desain, Pengembangan, Implementasi, dan Evaluasi. Data penelitian dikumpulkan melalui metode observasi dan pemberian angket, dilanjutkan dengan pre-test dan post-test. Partisipan penelitian terdiri dari 64 siswa sekolah dasar kelas lima di dua sekolah dasar. Penyelidikan ini menggunakan analisis N-Gain Score untuk menilai kemandirian e-book berbantuan flip dalam meningkatkan motivasi siswa. Selain itu, penelitian ini bertujuan untuk mengetahui perbedaan antara kelas eksperimen dan kelas kontrol dengan menggunakan uji T dan One Group Pre-test and Post-test Design. Temuan studi ini menunjukkan bahwa proses pengembangan e-book sangat efektif. Media pembelajaran e-book berbantuan Anyflip ini layak dan berpotensi meningkatkan motivasi siswa, khususnya siswa kelas V SD.

ABSTRACT

Appropriate learning media must be developed to boost students' learning motivation and conceptual comprehension. E-books are required as a form of instructional media to present subject-related content with student-workable evaluation questions. The primary objective of the research and development of this Anyflip-assisted e-book is to enhance student motivation. The study employs the ADDIE model, which comprises five stages: Analysis, Design, Development, Implementation, and Evaluation. The research data was collected through observation methods and administering a questionnaire, followed by a pre-test and a post-test. The study participants comprised 64 elementary school students in the fifth grade in two elementary School. The present investigation employs N-Gain Score analysis to assess the efficacy of anyflip-assisted e-books in enhancing student motivation. Additionally, the study aims to determine distinctions between the experimental and control classes by utilizing the T-test and the One Group Pre-test and Post-test Design. The study's findings indicate that the e-book development process is highly efficacious. This Anyflip-assisted e-book learning medium is feasible and can potentially enhance student motivation, particularly among fifth-grade elementary school students.

1. INTRODUCTION

Currently, we are in the midst of the fourth industrial revolution, which is associated with digitalization. As a result, all-digital tools influence many spheres of life. Most Indonesians are global community members, which has implications for the education-related economic sector. With the development of technology that impacts education, learning patterns have shifted from being initially teacher-centered to student-centered (Legina & Sari, 2022; Mimin Ninawati et al., 2021). This shift affects students' utilization of modern technology in the learning process. One of the technologies that teachers can use to provide learning materials is learning media. Utilizing learning media that facilitates the learning process is more efficient and effective and allows for accomplishing learning objectives (Febriyanti & Sari, 2022; Nicolaou et al., 2019). Learning media is a tool that assists teachers in delivering learning material to students; thereby, they can gain a deeper understanding of the subject being taught (Cress et al., 2019; Tarwiti, C., & Wijayanti, 2018). Learning media can also transfer information that has been designed and planned as thoroughly as possible to assist students in achieving their learning objectives and create a conducive learning environment where learning activities can be conducted effectively (Gusmilarni, Fitrah Al Anshori, 2022; Roza et al., 2021). In addition, engaging learning media will simplify teacher information transfer. In short, the teacher must provide the most incredible learning

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experience possible by creating learning media using technology. A digital book or e-book is one of the learning media that is beneficial for delivering learning material. An electronic book, also known as an e-book, is a digital book containing text and images in digital format. The components of the learning procedure include learning objectives, learning materials, and learning media (Amalia & Fajar, 2021; Sari & Dwi, 2022). Teachers require e-book learning media that conveys more engaging learning content to make it simpler for students to comprehend traditionally difficult subject lessons, such as natural science.

Natural Sciences (IPA) is one of the essential elementary education subjects. Science subjects can allow students to develop their understanding of their natural environment, conforming to every pupil's interpretive capabilities (Damayanti et al., 2017; Maheswari & Pramudiani, 2021). Every learner has a unique method of thinking because they have pure, original thoughts. Through Natural Science, students also acquire an understanding of concepts, theories, and facts (Maheswari & Pramudiani, 2021; Marginson, 2022). Initial observations and interviews with teachers and fifth-grade students at Tengah 07 Pagi Elementary School and Lubang Buaya 13 Pagi Elementary School revealed that e-book learning media usage in the class remains low. One of the courses focuses on ecosystem-related material. Teachers have not sufficiently explored learning media to increase students' motivation for ecosystem-related scientific learning. Acquisition of learning resources and media solely from existing textbooks, thereby students do not comprehend learning optimally and become immediately bored during learning activities.

According to field findings, fifth-grade pupils at Tengah 07 Pagi and Lubang Buaya 13 Pagi Elementary Schools are still not using e-books and appropriately reading them. The curriculum consists solely of school-supplied thematic textbooks. Consequently, pupils have the impression that the knowledge they are supposed to learn is not very interesting and does not provide any value to them. Even though the material delivered directly by the teacher and with thematic book capital is illustrated with engaging images, it is considered uninteresting. Particularly in science courses involving ecosystem content, instructors have yet to explore learning media that may boost students' motivation to learn. Therefore, we require learning media capable of boosting pupils' motivation levels. Motivation is crucial in increasing students' determination to learn (Hassan Al-Ahdal, 2020; Taştan et al., 2018). Motivation is an essential aspect of the learning procedure. For students to understand the concept of learning, motivation is required to increase their energy and persistence in achieving specific goals so that students can be motivated to comprehend learning (Dyah Nur Fauziyah & Anistyasari, 2020; Huertas-Abril, 2021). As a result, e-books are required as a form of instructional media to present subject-related content with student-workable evaluation questions. Based on the identified issues, appropriate learning media must be developed to boost students' learning motivation and conceptual comprehension. In the research and development of this e-book, Anyflip was used to make the presentation of natural science subject material on ecosystems more engaging by including images, illustrations, and background audio that can be displayed on electronic devices. The development of Anyflip-assisted e-book learning media is anticipated to increase students' learning motivation.

2. METHOD

This study employs an R&D (Research and Development) methodology based on the ADDIE model. This form of research and development is a sort of research and development that can produce specific learning products by verifying the validity and efficacy of these products to be suitable for use in the learning process. These products can then be used in the learning process. The ADDIE model has five stages: (1) analysis, (2) initial product design, (3) development, (4) implementation, and (5) evaluation (Oksa & Soenarto, 2020; Zulherman et al., 2021). This study was conducted between March 17 and March 21, 2023. Sixty-four fifth-grade students from Tengah 07 Pagi and Lubang Buaya 13 Pagi Elementary Schools served as subjects for this investigation. To determine the effectiveness level of the Anyflip-assisted e-book learning media in boosting student motivation by testing the Anyflip-assisted e-book learning media on ecosystem-related content with students using pre- and post-test questions and questionnaires. Data analysis utilized quantitative analysis techniques. Students' trial data and data entered into the validator during the validation phase provided quantitative data. In order to demonstrate the significance of the score, an N-Gain Score analysis was conducted with the experimental class and control class, as well as a T-test, using the One Group Pre-test and Post-test designs to administer a pre-test, treatment, and post-test. Data gathering strategies include instrument questionnaires, feasibility validation, and trial validation. The evaluation employed employs a Likert-type scale consisting of five points (Mardin et al., 2022). The outcomes of the due diligence evaluation shall be expressed as a percentage value, which will be utilized to ascertain the qualification category of the media under development. The e-book development feasibility scale using Anyflip as an assessment requirement is shown in Table 1.

Table 1. Feasibility Scale for Developing E-book Using Anyflip

No.	Percentage Score	Interpretation
1.	81% - 100%	Very Worthy
2.	61% - 80%	Worthy
3.	41% - 60%	Decent enough
4.	21% - 40%	Not worth it
5.	0% - 20%	Very not worth it

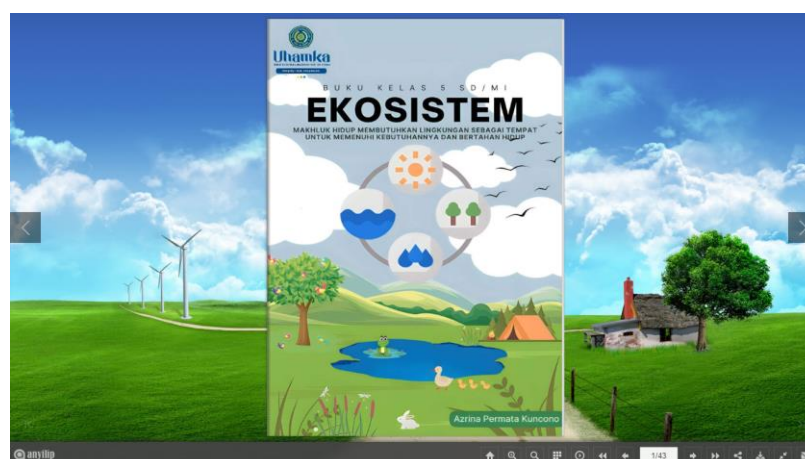
3. RESULT AND DISCUSSION

Result

Table 2. Analysis Results of Respondents Requirements on 64 Students

No.	Indicator	Questionnaire Analysis
1.	Learning method	Using conventional method and lack of media for modern learning method.
2.	Media as a learning tool	Using media learning to support learning activity.
3.	Learning using media	Requiring development of media to support learning activity.
4.	The purpose of media development	Media can support student to understand the concept easily.

The findings of **Table 2** survey indicate that integrating learning media into classroom learning is imperative to facilitate students' comprehension and assimilation of learning concepts. This measure is deemed necessary to enhance the accessibility, attractiveness, and convenience of the learning process, thereby enabling students to learn and comprehend the subject material more effectively. This paper outlines the process involved in creating e-book learning materials utilizing the Anyflip platform. The subsequent procedures delineate the process of compiling a media design for an Anyflip e-book. 1) Examining the issues and requirements of students, 2) Establishing objectives and formulating blueprints or drafts for the e-book. 3) Design learning media customized for natural science subjects, explicitly focusing on ecosystem-related content. The development process involves three key stages, gathering relevant materials, establishing a conceptual framework, and formulating evaluative questions. Using these learning resources, the ultimate goal is to enhance students' cognitive abilities. 4) The process of conducting validation tests involves the participation of material experts, media experts, and language experts. Subsequently, the tests are administered to students in a classroom setting. 5) Performing an assessment to furnish input on the creation and subsequent execution of e-books. The results of the Anyflip ebook design are shown in **Figure 1**.

**Figure 1.** E-book Design

Material experts, media experts and language expert have validated the design of Anyflip-assisted e-book learning media as shown in [Table 3](#).

Table 3. Material, Media, and Language Experts Validation Result

No.	Validation Assesment	Average Percentage	Category
1.	Material Expert	98%	Very Valid
2.	Media Expert	88%	Very Valid
3.	Language Expert	76%	Valid

Base on [Table 3](#), media has undergone validation, yielding an average score of 98% from material experts, 88% from media experts, and 76% from language experts. Subsequently, conducting validation assessments with the input of material experts, media experts, and language experts is highly feasible. The validation results of material experts, media experts, and language experts are shown in [Figure 2](#).

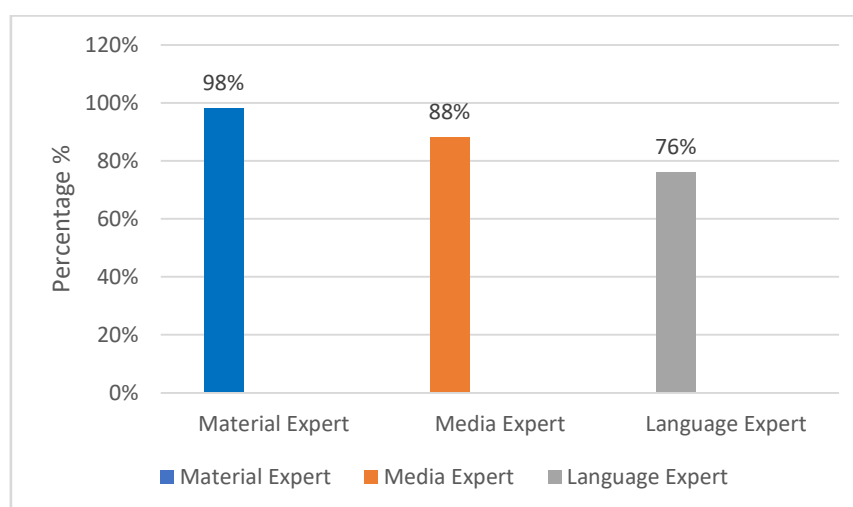


Figure 2. Average Percentage of Validation Ratings

The presented [Figure 2](#) depicts the mean percentage of validation conducted by material, media, and language experts to determine the viability of the Anyflip-assisted e-book learning medium under development. Following the validation by experts, the subsequent phase involves implementing the intervention with students in a classroom setting. During this phase, students are administered pre-test queries, subjected to intervention via the Anyflip-assisted e-book, and assessed with post-test questions using the One Group Pre-test, Post-test Design. The findings acquired are presented in [Table 4](#).

Table 4. Average N-Gain Score in Experimental and Control Class

Experiment Class N-Gain Score		Control Class N-Gain Score	
Minimum	25%	Minimum	0%
Maximum	100%	Maximum	50%
Average	56.7%	Average	15%

Base on [Table 4](#) the N-Gain Score test results indicate that the experimental class, which utilized Anyflip-assisted e-book learning media, achieved an average score of 56.7708 or 56.7%, placing it within the category of quite effective. The minimum and maximum N-Gain Scores observed were 25% and 100%, respectively. In contrast, the control group, which did not utilize the Anyflip-assisted e-book learning media, exhibited an average N-Gain Score of 15.0595 or 15%, placing them in the ineffective category. This group's minimum and maximum N-Gain Scores were 0% and 50%, respectively. Subsequently, the Independent T-test was conducted to analyze the N-Gain score in the present study. The outcomes are presented in the following [Table 5](#).

Table 5. Independent T-Test for N-Gain Score

Statistics	Levene's Test for Equality of Variances					
	F	Sig.	t	df	Sig. (2-tailed)	
Gain_Persen	Equal variances assumed	5.994	0.017	10.863	62	0.000
	Equal variances not assumed			10.863	51.638	0.000

Table 5 indicates that the significance value obtained from Levene's Test for Equality of Variance output is 0.17 > 0.05, which exceeds the threshold. It can be inferred that the homogeneity of variance exists between the N-Gain data (%) of the experiment and control classes. The statistical analysis of the N-Gain Score involves utilizing the independent t-test, which is informed by the Sig value present in the Equal variances assumed table. According to output table for the "Independent Samples Test" the Sig. value (2-tailed) is .000 < 0.05. Therefore, it can be inferred that a significant (real) difference in efficacy exists between the utilization of Anyflip e-book learning media and the absence of such media in terms of enhancing students' learning motivation in the context of Ecosystem material for fifth-grade elementary school students.

Discussion

In the contemporary age of digitalization, students exhibit a rapid ability to acquire information and access a wide range of resources through digital media (Rostyawati et al., 2021; Sima et al., 2020). The swift progression of technology necessitates that teachers and students possess the ability to comprehend and utilize technological tools and access information via digital platforms. This access implies that educators have the ability to use technology to generate educational materials. Consistent utilization of educational media is advantageous in facilitating optimal learning outcomes (Ariyanto et al., 2018; Dwi Saputra et al., 2022). The availability of educational media enables students to comprehend and internalize the learning material's fundamental concepts. The results obtained from the field observations and interviews conducted at Tengah Lubang Buaya 13 Pagi and Tengah 07 Pagi Elementary Schools indicate that the utilization of technology as a learning medium in these educational institutions is suboptimal. This circumstance is attributed to the inadequate technological proficiency of the teachers and the limited integration of technology in the instructional process. It can be inferred that incorporating a learning medium is imperative in facilitating the learning process.

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analysis of data obtained from pre-test and post-test measurements and N-Gain calculations conducted in both the experimental and control classes. The experiment class utilized the Anyflip-assisted e-book learning media and achieved an average N-Gain score of 56.7708% or 56.7%.

This percentage falls within the "quite effective" category, as it meets the minimum N-Gain score of 25% and does not exceed the maximum score of 100%. The control class did not utilize the Anyflip-assisted e-book learning media and exhibited an average N-Gain Score of 15.0595 or 15%. This score falls within the ineffective category, characterized by a minimum N-Gain Score of 0% and a maximum of 50%. The statistical analysis using the T-test revealed that the Sig. (2-tailed) is $.000 < 0.05$, meaning less than the predetermined alpha level. It can be inferred that a notable distinction exists between the two classes that utilize the Anyflip e-book learning medium and those that do not receive it. The experiment class, which utilized the Anyflip-assisted e-book learning media, exhibited a more significant mean score in students' learning motivation than the control class, which did not use the already mentioned learning media. E-books with the help of Anyflip can increase the motivation of elementary school students, this has positive implications for the development of more interesting and interactive learning methods. The positive results of this study can encourage further research in terms of the use of technology in increasing student motivation and learning outcomes. The effectiveness of Anyflip e-books may depend largely on the school context, level of technology access, and other factors. The results may not be immediately generalizable to all situations. In addition, although this research may show an increase in motivation in a short time, the long-term effects of using certain technologies in learning need to be considered.

4. CONCLUSION

The study's findings and discussion regarding the development of the Anyflip-assisted e-book have demonstrated that using Anyflip-assisted e-book as a learning medium for ecosystem lesson material has a positive impact on enhancing student motivation, particularly among fifth-grade elementary school students. The employment of Anyflip e-book learning media has resulted in a more significant enhancement of motivation among students compared to those who do not utilize such learning media. Furthermore, a rise in educational outcomes has been observed following the utilization of the Anyflip-assisted e-book. It is anticipated that forthcoming researchers will conduct further investigations on the Anyflip e-book, exploring its content and other features as subsequent studies to enhance the educational experience.

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