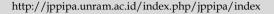


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Kvisoft Flipbook Maker-Assisted E-Modules to Foster Learning Motivation in Elementary School Students on the Topic of Changes in The Shape of the Earth

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Abstract: Student motivation in learning IPAS (Natural and Social Sciences) subjects remains relatively low. This issue can be attributed to various factors, such as the limited utilization of learning resources and the lack of comprehensive content coverage. The purpose of this study is to create an electronic instructional module with the assistance of Kvisoft Flipbook Maker. The study used research and development (R&D) methodology, explicitly incorporating the ADDIE model. The participants were subject content experts, media experts, language experts, and 96 fifth-grade elementary school students. Data collection methods consist of observations and assessments. Expert evaluations were conducted utilizing questionnaires, whereas students were administered with Pre-test and Posttest assessments. Data analysis was performed using quantitative descriptive techniques. The evaluation results from media experts indicated a 77% feasibility score, while material experts scored 93% and language experts scored 100%, signifying high feasibility. The findings suggest that implementing E-Modules positively impacts student performance, as evidenced by improved evaluation outcomes following integrating of the Kvisoft Flipbook Maker-assisted electronic module. This research underscores the significant role of technology in boosting elementary school students' motivation.

Keywords: E-module; IPAS; Kvisoft flipbook maker; Motivation

Introduction

Globalization has led to the rapid advancement of science and technology, which has become inevitable and significantly impacted various aspects of human life (Chandra et al., 2023). Currently, technological tools are being integrated into all sectors, with one example being their application in education (Widianto, 2021). Education, a crucial sector in life, must continuously adapt to the changing era and strive for innovation. Consequently, educational innovation now incorporates technology to enhance learning experiences and achieve educational objectives (Ambarwati et al., 2022).

Challenges in teaching and learning have prompted educators to renovate their teaching methods by incorporating media into the learning process. One of the solutions to these challenges is the adoption of online learning platforms as a means of innovation in education (Purnasari et al., 2020).

Learning media refers to innovative tools that aid in the dissemination of knowledge. These tools are instrumental in facilitating the attainment of learning objectives (Permata et al., 2023). The significance of acquiring competence in learning necessitates using learning media, encompassing contextual and technology-based mediums (Zulherman et al., 2021). Encompassing educational material is also thought to

improve motivation and engagement among students. Furthermore, integrating media in educational activities assists teachers in effectively delivering instructional materials, thereby contributing to achieving learning goals (Wibowo et al., 2020). As technology has advanced, online learning media has become increasingly prevalent and serves as a valuable support for teaching. Consequently, the use of online learning media is deemed effective and efficient in facilitating the educational activities (Calderón et al., 2020).

IPAS is a fundamental subject that students must excel in, as specific competencies in IPAS learning are crucial for students' practical skills in daily life (Antari et al., 2023). Emerging from the Merdeka curriculum, IPAS is a novelty subject (Agustina et al., 2022). It is a subject that has evolved from the fusion of two core subjects, notably Science subjects (comprising Natural Sciences and Social Sciences) (Wijayanti et al., 2023). The reforming of IPAS lessons is geared towards enhancing students' skills and knowledge by fostering selfawareness, understanding of the environment, and engagement with the social milieu (Agustina et al., 2022). Nevertheless, implementing IPAS learning encounters numerous issues and hurdles, with the lack of student interest in IPAS lessons adversely affecting learning outcomes and the attainment of IPAS educational goals (Alfatonah et al., 2023). This situation undoubtedly compels educators to be more creative in adapting IPAS learning to make it engaging and enjoyable for students (Antari et al., 2023).

Depending on the data obtained from interviews conducted with IPAS subject teachers in grade V of Muhammadiyah 24 Rawamangun Elementary School and Pejaten Barat 08 Pagi State Elementary School, it has been observed that the implementation of IPAS learning in the classroom is primarily reliant on the use of PowerPoint presentations and print books. However, the limited and non-contextual content of the IPAS book for grade V Elementary School has resulted in students quickly becoming bored and struggling to comprehend the subject matter during IPAS lessons. Furthermore, the restricted use of learning media has also contributed to a decline in student motivation in IPAS lessons. Consequently, the limitations mentioned above in the learning process indicate that IPAS learning is not yet widely disseminated and lacks contextual relevance, thereby impacting the achievement of learning objectives. To address these challenges, educators may develop innovative learning media that can be employed as a solution to overcome the difficulties encountered in IPAS lessons. One effective approach to transforming learning activities into enjoyable and effective experiences is using learning media in IPAS learning (Mutanaffisah et al., 2021).

Media selection for IPAS learning may involve the creation of learning materials for flipbooks-assisted digital modules. E-Modules, which are digital modules that can be easily accessed through devices and the internet without worrying about distance and time, offer a convenient and efficient way of learning (Antari et al., 2023). These E-Modules are not physical in nature but exist as soft files stored on devices, making them portable and accessible from anywhere. Furthermore, E-Modules are designed with comprehensive content that includes interactive modules, videos, links, audio, images, and quizzes to enhance the learning experience (Laila et al., 2023). In order to supplement the E-Modules design, supporting applications like the Kvisoft Flipbook Maker application are required. Integrating E-Modules in learning is widely believed to positively impact students' interest in learning (Tarigan et al., 2023). Therefore, adopting E-Modules in education effectively boosts students' learning engagement and motivation.

Numerous research studies have been conducted on the development of learning media, which has drawn researchers' interest in creating instructional materials. In this regard, the focus lies on utilizing the Kvisoft Flipbook maker to design IPAS digital modules. The main aim of this study is to enhance the learning experience by developing E-Modules with the assistance of the Kvisoft Flipbook maker. The researchers aim to investigate the progress made in developing Kvisoft Flipbook maker-assisted E-Modules. These E-Modules are specifically designed to facilitate students' comprehension of IPAS, particularly in the context of Changes in the shape of the Earth. The research is grounded in a thorough analysis of background issues, which have been identified through observations and interviews. By implementing the E-Module IPAS media, it is anticipated that students will be motivated to engage with IPAS during their studies.

Method

Development research (R&D) was employed as a methodology within the scope of this investigation. Such research is designed to create a product (Hanum et al., 2024). This research aims to develop, produce, and validate a design product that will significantly impact learning (Hidayati et al., 2024). The study employed the ADDIE model as its research methodology, comprising the five distinct sections that follow: analysis, design, development, implementation, and Evaluation. Figure 1 visually illustrates these stages.

This study utilized a sample of fifth-grade students from Muhammadiyah 24 Rawamangun Elementary School and Pejaten Barat 08 Pagi State Elementary School in the second semester of the 2023/2024 academic year. The sample consisted of 96 students divided into two groups: an experimental class and a control class. The experimental class included 24 students from Pejaten Barat 08 Pagi State Elementary School and 27 students from Muhammadiyah 24 Rawamangun Elementary School. On the other hand, the control class comprised 22 students from Pejaten Barat 08 Pagi State Elementary School and 23 students Muhammadiyah 24 Rawamangun Elementary School. The data gathering techniques encompassed the creation of digital instructional materials using Kvisoft Flipbook Maker, observation, interviews, and the implementation of both pre-test and post-test evaluations. The pre-test and post-test assessments in this research consisted of multiple-choice questions with choices a, b, c, and d, amounting to a total of ten items (Adinda et al., 2022).



Figure 1. Stages of ADDIE model

This study's research methodology involves utilizing quantitative and qualitative data analysis methods (Leso et al., 2023). The quantitative data analysis was conducted with input from three validation experts: subject material, media, and language experts. In order to evaluate product effectiveness under development, researchers gathered user feedback (Hiralda et al., 2023). The experts utilized a Likert scale to assess and validate the data, with the Likert scale criteria outlined in Table 1.

Table 1. Media Assessment Scale Criteria

Category	Score
Strongly Conforming	5
Conforming	4
Fairly	3
Less Conforming	2
Unconforming	1

Table 1 presents the requirement of score conversion in evaluating the effectiveness of student motivation when utilizing the Kvisoft Flipbook Makerassisted E-module, specifically concerning content on Changes in the shape of the Earth. A formula is used to calculate the respondents' descriptive proportion in order to determine the validity of the media that the

validator created. On the other hand, Table 2 presents the feasibility scale for E-modules assisted by Kvisoft Flipbook Maker.

Table 2. Feasibility Scale on the Development Kvisoft Flipbook Maker-assisted E-Modules

Description	Criteria
81%-100%	Strongly Worthy
61%-80%	Worthy
41%-60%	Worthy Enough
21%-40%	Unworthy
0%-20%	Strongly Unworthy

The effectiveness of the E-Module in improving student' metacognition skills and understanding of the Changes in the shape of the Earth was evaluated through the utilization of the N-gain formula analysis in this study. A T-test was conducted using the One Group pre-test and post-test design to compare the N-Gain scores between the experimental and control groups. This design consisted of three phases: Pre-test, treatment, and post-test (Siagian et al., 2019). After the test, the results were compared to determine the assessment. After that, the test results of the student were assessed by contrasting them with the benchmarks listed in Table 3. N-Gain Level Requirements.

Table 3. N-Gain Level Criteria

Gain Index	Gain Criteria
g>0.7	High
$0.3 < g \le 0.7$	Medium
$g \le 0.3$	Low

Utilizing (SPSS) Statistical Program for Social Science in this research study facilitated the data processing process. The benefits of the SPSS software in handling accurate statistical data in different forms, like percentages, tables, and graphs, play a crucial role in simplifying the data analysis in research (Sari et al., 2022). This accountability is the primary rationale behind the adoption of the SPSS application.

Result and Discussion

The ADDIE type of development model is utilized to design Kvisoft Flipbook Maker-assisted E-Modules. The ADDIE model is one of several development models available. This model consists of five systematic sections: Analysis, Design, Development, Implementation, and Evaluation. During the analysis phase, the researcher conducted interviews and observations with 5th-grade IPAS subject matter teachers to gather information on the material and use of IPAS learning media in schools. In the subsequent design phase, the researcher drafted the related material to be designed and determined sub-

themes, titles, materials, and questions. The selected subject material was aligned with the chosen sub-theme, which focused on Changes in the shape of the Earth. The e-module media was then edited using the Canva application and transformed into a Digital Module along with the aid of Kvisoft Flipbook Maker. Figure 2 illustrates the outcome of creating learning materials using Kvisoft Flipbook maker application-assisted E-Modules.



Figure 2. Design of developing a kvisoft flipbook maker-assisted e-modul

The developmental Stages of Kvisoft Flipbook Maker-based Digital Modules includes validation tests that validators will evaluate. The validation data was analyzed to ascertain the effectiveness and credibility of the experts. The media validation phase aims to determine the feasibility of the product and identify any deficiencies before students utilize it. Following the assessment, the researcher will incorporate revisions based on the feedback and recommendations provided by the validation experts. The assessment results and professional viewpoints concerning utilizing the Kvisoft Flipbook Application-supported E-module media are depicted in Figure 3 and Table 4.

The assessment of the Kvisoft Flipbook makerassisted E-Modules by three experts in validation is illustrated in Figure 3. The evaluation conducted by media, content, and language experts concluded that the design product is dependable and appropriate for IPAS learning. The validation outcomes can be found in Table 4.

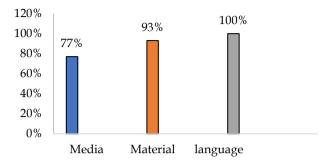


Figure 3. Result of the experts' validation recap

Table 4 presents the evaluation outcomes offered by various professionals regarding creating the Kvisoft FlipBook Maker-supported E-Module. The Media Expert assigned a 77% average score, the Subject Material expert rated it at 93%, and the Language expert evaluated it at 100%. Consequently, the combined average validation percentage from the three experts stands at 90%, indicating that the development of the E-Module falls within the highly feasible level. Moving forward, the next phase involves revising the E-Module based on the feedback and suggestions provided by the Validation Experts. Subsequently, the Implementation stage will commence, where the design product will be implemented in actual learning settings. During this stage, the product's validation will be evaluated by both validation experts and students as respondents. The assessment stage encompasses the completion of both the pre-test and post-test by grade V students. These tests will adhere to the One Group pre-test and post-test Design, while researchers will employ the N-Gain score formula to assess the significance of the effects. The analysis of media implementation results can be found in Table 5.

Table 4. Results Recapitulation of Expert Validation Assessment

Validator	Score Gain	Maximum Score	Mean Percentage
Media	50	65	77%
Material	70	75	93%
Language	60	60	100%
Total			90%
Qualification			Highly Feasible

Table 5. Average N-gain Score of Experimental and Control Classes

Experiment	Class N-Gain Score	Control Class N-Gain Score
Average	68.2307	26.4424
Minimum	20.00	-83.33
Maximum	100.00	64.71

The data presented above indicates that the experimental group, who utilized the Kvisoft Flipbook Maker-assisted E-Module media, achieved a 68.2% average N-Gain score, positioning them in the moderately effective range. The lowest N-Gain score was 20.00%, while the highest score reached 100.00%. On the other hand, the control group, which did not incorporate the Kvisoft Flipbook Maker-assisted E-

Module media in their learning process, obtained a 26.44% average N-Gain score. This average score is categorized as ineffective. The minimum score attained was -83.33%, and the maximum score obtained was 64.71%. 1. After the N-gain analysis, a T-independent test was performed to assess the N-gain score in the current research. The Result of this examination can be found in following Table 6.

Table 6. Independent T-Test N-Gain Score

		F	Sig.	T	Df	Sig. (2 tailed)
N-Gain Percentage	Equal Variances Assumed	1.928	0.168	8.840	94	0.000

The significance value derived from Levene's Equality test table suggests a 0.168 Significance value, which is larger than the 0.05 significance threshold/1(0.168 > 0.05), according to the information provided in Table 6. The data suggests that the experimental and control classes are homogeneous, as shown by the variation value of the N-gain data (%). An Independent T-test is then performed using the significance value from the equal variance assumptions table to examine the N-gain scores further. The table data shows a 2-tailed significance value of 0.00, indicating a significant difference between the groups that used Kvisoft Flipbook Maker-assisted E-Modules and those that did not, as the value is lower than the 0.05 significance level. In conclusion, this demonstrates that using Kvisoft Flipbook Makerassisted E-Modules positively impacts the motivation and enthusiasm of grade V students in IPAS lessons on the topic of Changes in the shape of the Earth. The statistical analysis and the noteworthy distinctions found between the experimental and control groups lend credence to this conclusion.

Science and technology are advancing at a rapid pace during the present phase of development, which is referred to as Development 4.0 Many sectors have embraced and applied technological (Cannavacciuolo et al., 2023). Of course, advancement requires the skills of various professions to have the skill set to utilize technology, including teachers as educators and facilitators. In the era of Development 4.0, teachers are expected to be proficient in using technology for educational purposes (Wallace et al., 2023). This requirement aligns with previous research (Ashari et al., 2022), which suggests that conventional teaching and learning methods have transitioned towards technology-based approaches. Integrating technology in education adds a new dimension and empowers educators to innovate in their teaching practices (Zulherman et al., 2023).

The use of technology-based media to enhance learning is now widely available, with online media being particularly effective and utilized in education, specifically through E-Modules (Ambiyar et al., 2023). Previous studies have indicated that E-Modules effectively stimulate interest in learning (Maghfiroh et al., 2023). E-Modules are digital learning materials that serve to facilitate self-directed learning. These modules can be customized to incorporate various educational resources such as videos, audio, hyperlinks, images, and more (Rianti et al., 2023). Therefore, the creation of emodules necessitates software that enables the transformation of a module from a document format to a flipbook format. Kvisoft Flipbook Maker is a software program that transforms modules or textbooks into captivating digital formats. The primary purpose of Applying Kvisoft Flipbook Maker is to amplify students' drive and involvement in the educational journey (Hairani et al., 2023). According to previous research, using Kvisoft Flipbook Maker in educational settings positively affects learning outcomes. Additionally, the user-friendly interface and numerous attractive features available in the application contribute to its appeal (Fatimah et al., 2024). Furthermore, this application is equipped with various exciting features, including attractive background designs, navigation, hyperlinks, and background music. Another advantage of Kvisoft Flipbook Maker is that this application can be easily utilized on electronic gadgets such as smartphones, laptops, and tablets and can be accessed without an internet connection (Hiralda et al., 2023).

The study has developed a learning support tool in the form of Kvisoft Flipbook maker-assisted digital modules for IPAS learning in fifth-grade classes at SDN Pejaten Barat 08 Pagi and SD Muhammadiyah 24 Rawamangun. Designing the Kvisoft Flipbook Maker-assisted e-module aims to provide engaging teaching materials to address challenges in science education, mainly focusing on the topic of Changes in the Earth's surface, as outlined in Chapter IV, Topic B of the fifth-grade science textbook. Prior research has highlighted that applying e-modules in education can enhance students' interest in learning due to their multimedia-based, unique nature and alignment with students' learning needs, ultimately contributing to achieving

educational objectives (Putri et al., 2023). The content developed for the digital modules with the support of Kvisoft Flipbook Maker has been carefully aligned with Objectives Learning (TP) and Learning Achievements (CP). Depending on the conducted test results, the research has concluded that utilizing Kvisoft Flipbook Maker-assisted digital modules can attain qualifications that align with the learning objectives and achievements. Consequently, this product is deemed suitable for implementation as an educational medium within schools. Additionally, the opinions of three experts, specifically media expert, materials expert, and language expert, have affirmed that the Kvisoft Flipbook Maker-assisted E-Modules, serving as teaching materials, are feasible and have received positive reviews. This result substantiates their high feasibility, as evidenced by a 90% rating. This research evaluation is consistent with previous studies conducted by other researchers, which have indicated that using Kvisoft Flipbook Maker-assisted learning media resources can have a positive impact, particularly in motivating students and enhancing their learning success. Consequently, using learning media can effectively facilitate learning (Hairani et al., 2023).

The N-gain data from the experimental group is 68.2. This data is derived from the Pre-test and post-test values in the N-gain calculation. These results can be considered quite effective. On the other hand, the control group had an 26.44% average result, indicating that the outcomes fell into the inadequate category. To ascertain the statistical significance, a T-test was used and improve students' metacognitive skills using the emodule. The T-test's statistical analysis demonstrated that the Significance (2-tailed) value was 0.00, less than the critical value of 0.05. This finding suggests noteworthy disparities in metacognitive abilities exist between the experimental and control classes. Furthermore, the experimental group, which utilized Emodules as a learning media, showed better cognitive abilities than the control group or individuals who weren't employing the e-module as a teaching resource (Laila et al., 2023).

Integrating electronic modules in elementary school education is anticipated to enhance students' comprehension and engagement in learning. The effectiveness of e-modules in facilitating students' understanding of academic content and their user-friendliness lend credence to this integration. Previous studies consistently affirm that using digital flipbook-supported educational materials promotes learning, fosters motivation, and positively influences academic performance (Hairani et al., 2023). The N-Gain analysis results, which show a 68.2% score and place it within the Fairly Effective category, provide evidence of this yield. Subsequently, there was a notable improvement in

learning outcomes, reflected by an 85% score index falling within the very good category.

By implementing E-modules in the technological era can increase students' engagement in the learning process. This justification is further validated by recent studies indicating that the synergy between technology and education can effectively support students' learning experiences. By utilizing E-modules, students can tailor their learning approaches and styles to suit their individual needs (Feri et al., 2021). Moreover, using electronic modules offers advantages such as enhanced learning accessibility, improved effectiveness, and increased efficiency in knowledge acquisition. Additional research has also highlighted the positive impact of E-modules on students' academic performance (Ramadhani et al., 2024).

According to recent literature, E-modules offer various benefits that can enhance interactivity in the learning process (Ramadhani et al., 2024). One effective tool for creating engaging and interactive teaching materials is the Kvisoft Flipbook Maker application. This software enables the design of books, modules, papers, and electronic magazines (Suyasa et al., 2021). Researchers have also highlighted the advantages of using Kvisoft Flipbook Maker for developing E-books or E-modules. For instance, it allows the inclusion of videos, links, images, and animations. Additionally, the application can be used offline, eliminating the need for an internet connection (Rianti et al., 2023). Moreover, several studies have indicated that Kvisoft Flipbook Maker helps students overcome boredom and increases their interest in learning. However, users must have additional devices, such as laptops, cell phones, tablets, or computers, to utilize this application effectively (Hiralda et al., 2023). All in all, Kvisoft Flipbook Maker is highly recommended as a medium for student learning.

Conclusion

The E-module, which was designed with the assistance of Kvisoft Flipbook Maker, has undergone and development. rigorous testing product Additionally, experts and students have evaluated the E-Module through multiple tests. The product has been deemed suitable for use based on the evaluation results. The evaluation results demonstrate that implementing the Kvisoft Flipbook Maker-assisted E-Module has led to an increase in student motivation to learn. This heightened motivation can be attributed to the ability of E-modules to capture students' attention during their studies.

Author Contributions

Putri Alya Diana, Wrote the Introduction, Methods, Results, Discussion and conclusions. Zulherman supervising and corresponding.

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Conflicts of Interest

There is no conflict of interest in this writing.

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