

Digital Flipbook-Based Learning Media Design in Integrated Thematic Learning on the Theme of Growth and Development of Living Things in Class III Inclusive Elementary School

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Abstrak

Penelitian ini bertujuan untuk mengatasi kesulitan pemahaman siswa kelas III Inklusif di SD Al-Irsyad Al-Islamiyah Jember dalam pembelajaran tematik tema pertumbuhan dan perkembangan makhluk hidup. Data dari 25 siswa menunjukkan bahwa 80% mengalami kesulitan dengan metode konvensional, sedangkan 90% membutuhkan inovasi, khususnya media berbasis flipbook digital. Sebanyak 85% siswa menyukai media digital, dan 83% tertarik pada ilustrasi menarik. Lebih dari 90% setuju dengan pengembangan Flipbook Digital sebagai media pembelajaran. Penelitian ini menggunakan metode penelitian dan pengembangan ADDIE, dengan instrumen validasi dan angket respon siswa. Analisis data melibatkan penilaian ahli, persentase hasil angket, dan desain one-group pretest posttest. Hasil penelitian diharapkan dapat memberikan kontribusi terhadap peningkatan pemahaman siswa kelas III Inklusif terhadap tema pertumbuhan dan perkembangan makhluk hidup melalui media pembelajaran berbasis flipbook digital.

Kata kunci: Flipbook Digital, Media, Pembelajaran Tematik Terpadu

Abstract

This study aims to overcome the difficulty of understanding class III Inclusive students at Al-Irsyad Al-Islamiyah Jember Elementary School in thematic learning on the theme of growth and development of living things. Data from 25 students showed that 80% had difficulty with conventional methods, while 90% needed innovation, especially digital flipbook-based media. As many as 85% of students like digital media, and 83% are interested in interesting illustrations. More than 90% agreed with the development of Digital Flipbooks as learning media. This study used the ADDIE research and development method, with validation instruments and student response questionnaires. Data analysis involved expert judgment, percentage of questionnaire results, and one-group pretest posttest design. The results of the study are expected to contribute to improving the understanding of grade III Inclusive students on the theme of growth and development of living things through digital flipbook-based learning media.

Keywords: Digital Flipbook, Media, Integrated Thematic Learning

INTRODUCTION

Learning in the 21st century requires mastery of information and communication technology in addition to knowledge, skills and attitudes (Ramadhina & Khavisa Pranata, 2022). These abilities can of course be honed through the utilization of various activity models in the context of the learning process. This activity model is based on the implementation of tasks that are in line with competency attributes and learning materials (Ari Nurwidiyanti, 2022).

Learning is a change in behavior that is obtained based on experience and practice. This means that every educator must have the ability to make students' experiences meaningful so that every aspect of knowledge, skills and attitudes can be a guide for students at the next level (Herlina & Hadiyanti, 2021). Learners' understanding of the information conveyed by educators is the key to the success of the education and learning process (Sari & Ahmad, 2021).

The process of education and learning is a basic right for every citizen in various conditions, both normal and abnormal conditions, one of which is inclusive education. Inclusive education is education that seeks to accommodate every student with all the shortcomings and advantages that exist in students (Melita Khusnul Amalia, Fitri Jumiyati, Nur Aini Rosita, 2023). In other words, inclusive education is education that includes children with special needs to learn together in class with children of the same age in regular schools and in the end they become part of these students, thus creating a conducive learning atmosphere (Damayanti & Perdana, 2023).

Conscious efforts in the learning process are made by students to achieve certain learning outcomes in the guidance and direction and motivation of an educator (Nalinda Esti Gutari, 2023). The learning process is related to communication, technological advances, teaching materials, facilities and infrastructure, media and learning resources that support (Ghufron et al., 2023). Supporting media and learning resources are an integral part of the overall learning process.

Expertise in using media and learning resources is one of the requirements to become a professional teacher, namely a teacher who can develop learning resources or teaching materials so that the teaching and learning process becomes optimal, with this expected competency standards and basic competencies can be achieved, such as for example

educators using digital flipbook-based learning media(Annisa Qurratha ‘Aina, Miftahul Jannah, Siti Nurhasanah, Fitria Anggraeni, 2023).

Digital Flipbook-based learning media is a teaching medium that is being widely used and is starting to be studied, as a transition from printed books and following the students' penchant for using laptops, smartphones or cellphones(Mohamad Fatih, Ala Khomaria , Lana Diyani Aswitama, Nurlaila Al Latif, 2023). Digital flipbook is an application that can make it easier for teachers to create learning media by combining all elements such as image, text, audio, and video objects so as to create interesting learning media. Digital flipbooks are quite effective in the learning process(Nuzla Rizkia Rahma, Umar, 2023). Then the use of Digital Flipbook media also has an impact on students' critical thinking skills. This shows that flipbook-based digital media is included in the valid criteria and is suitable for use as teaching material for teachers and students(Prasasti & Anas, 2023).

Special classes are one of the services in inclusive schools by separating students with special needs in separate classes from regular students. Services for inclusive classes are in accordance with Permendikbud Number 70 of 2009 which requires that district / city governments appoint at least one elementary school and one junior high school in each sub-district and secondary education unit to organize inclusive education which must accept students with special needs.

From the various arguments and phenomena above, SD Al-Irsyad Al Islamiyyah Jember District since 2014 has implemented educational services for children with special needs. From 2014 to 2023, SD Al-Irsyad Al Islamiyyah Jember District implements inclusive education, of course, has a practice in providing educational services. So that at the level of concept and practice, it allows SD Al-Irsyad Al Islamiyyah Jember Regency to experience maturity in the implementation of inclusive education.

Integrated thematic is knowledge that must be taught to students because this thematic learning also has several advantages, including (1) learning experiences and activities are very relevant to the stage of development and needs of elementary school children, (2) learning activities give a meaningful impression, so that the learning outcomes obtained by students increase, (3) develop social skills in students, (3) develop social skills in students, such as cooperation, tolerance, communication, ethics and can receive input and responses politely from others without being inferior or embarrassed, (4) the implementation of learning stems from students' interests and needs, (5) develop students'

thinking skills, (6) learning activities emphasize the problems that students often encounter in their environment(Silalahi & Budiono, 2023).

METHOD RESEARCH

The method to be used in developing Electronic Handout teaching materials is to use the ADDIE method, there are several development models including the KEMP model, Dick and Carrey model, Assure model, Hannafin and Peck model, Gagne and Briggs model and ADDIE model(Firman Aulia Ramadhan, Suparwoto Spto Wahono, 2023). In this study, we used the development model, namely the ADDIE model. One of the functions of this model is generic learning design that facilitates a well-organized process in making learning media for classroom-oriented and online learning(Mastura Yulianti, Raras Setyo Retno, 2023). The ADDIE model is a simple framework useful for designing learning where the process can be applied in a variety of settings due to its general structure, because the advantages of this method are that it is more systematic and evaluation can be carried out at all stages, so as to minimize errors and deficiencies in the resulting product. However, the development of this teaching material does not carry out all the stages contained in the ADDIE method because it is not possible to implement.

RESULT AND DISCUSSION

The following are the results and discussion related to Digital Flipbook-Based Learning Media Design in Integrated Thematic Learning on the Theme of Growth and Development of Living Things in Class III of Inclusive Elementary School:

RESULT

A. Analysis Stage

1. Student's Need Analysis

Based on the results of the needs analysis obtained from distributing questionnaires to 25 students of class III Inclusive at Al-Irsyad Al-Islamiyah Elementary School in Jember, it can be concluded that there are several challenges in understanding thematic learning material on the theme of growth and development of living things. As many as 80% of students experience difficulties when using conventional learning methods such as lectures, blackboards, textbooks, or teaching modules. These results indicate that there is a need for innovation in the use of learning media in order to improve student understanding.

Furthermore, 90% of students expressed the need for learning media innovation, especially through the use of digital flipbooks that focus on thematic material on the theme of growth and development of living things. As many as 85%

of students show a preference for digital-based learning media, while 83% of them are interested in interesting illustrations that can support understanding of the material. In addition, the questionnaire results also reflect that 91% of students agree with the development of learning media in the form of Digital Flipbooks to facilitate them in understanding thematic learning materials.

Thus, this data provides a strong indication that the application of digital flipbook-based learning media can be an effective solution and is desired by students, because it can increase engagement, facilitate understanding of the material, and provide a more interesting learning experience (Mahendri et al., 2023). In the context of integrated thematic learning, the implementation of digital flipbooks can be a positive step to improve the quality of Inclusive Grade III learning at Al-Irsyad Al-Islamiyah Jember Elementary School.

2. Teacher's Need Analysis

Based on interviews with grade III teachers at Al-Irsyad Al-Islamiyah Jember primary school, it was revealed that although supporting tools for technology-based learning media are available, their use is still minimal in the field. Mrs. Fitriyani, a teacher, explained that although projectors and other supporting tools are available, most teachers do not have much time to make technology-based learning media such as flipbooks. Time constraints and limited teacher resources are the main factors in the lack of technology utilization in the learning process.

In an interview with Mrs. Nur Fatma, Head of Al-Irsyad Al-Islamiyah Jember Primary School, it was revealed that the school is committed to providing an inclusive learning space for all students, including those with special needs. The school has provided various facilities, including projectors, and has special assistant teachers in inclusive classes. However, the decision to use technology-based learning media is entirely up to policy and initiative on the part of teachers.

It is important to note that the availability of learning media has been well prepared by the school and steps have been taken to support inclusive learning. Nonetheless, the main challenge arises from teachers' lack of time and limited resources in developing and using technology-based learning media. Therefore, it can be concluded that the development of technology-based learning media, such as flipbooks, can be an effective solution if it can be adapted to the constraints faced by teachers in the context of thematic learning on the theme of growth and development of living things.

Using media for teaching students is important for several reasons (Ramadhan & Hidayah, 2022). Media can be used in almost any discipline to enhance learning, both in class and for out-of-class assignments. It engages students, aids in the retention of knowledge, motivates interest in the subject matter, and illustrates the relevance of many concepts. According to the multimedia learning theory, students may learn better from images and words than just from words, and several studies have shown that students tend to have positive learning experiences using multimedia (Ramadhan & Usriyah, 2021). Additionally, a systematic review of different multimedia tools in the teaching and learning processes revealed that multimedia usage resulted in accelerated teaching and learning processes. Therefore, the use of media in education can significantly contribute to the improvement of teaching and learning activities.

Digital media is highly important for teaching students as it can increase student engagement, simplify learning, and aid in the retention of knowledge. Incorporating digital media into the learning process makes it fun, interactive, and more interesting, which helps learners retain better (Hanin, Murjainah, 2023). Digital media can also help students work through difficult concepts with multiple resources and show difficult topics that are often hard to understand. Moreover, digital media can be used to motivate discussions or lock in concepts, and it can provoke discussion, an assessment of one's values, and an assessment of self if the scenes have strong emotional content (Ayu et al., 2023). Therefore, digital media can significantly contribute to enhancing teaching and learning experiences.

B. Design Stage

To design a digital flipbook on Heyzone website, the following steps can be followed:

1. Choose a Theme and Content:

Decide on a digital flipbook theme that matches the content you want to convey. Select the images, illustrations, and text that will be included in the flipbook to create an attractive and informative look.

2. Create Page Structure:

Plan the page structure of your flipbook. Determine the order of the pages and how the storyline or information will be presented. This helps in determining how the reader will interact with the flipbook content.

3. Use Heyzone Design Tools:

Heyzone provides a variety of design tools that can help you create a digital flipbook with ease. Make use of features like drag-and-drop, layout options, and design adjustments to organize the pages creatively and as desired.

4. Add Interactivity:

Heyzone allows adding interactive elements into your flipbook. Consider adding links, animations, or other multimedia elements that can enhance the reader experience.

5. Test and Refine:

Before publishing your digital flipbook, do a test run to make sure all elements are working properly. Check the layout, interactivity, and ensure that the content looks good on various devices.

6. Publish the Flipbook:

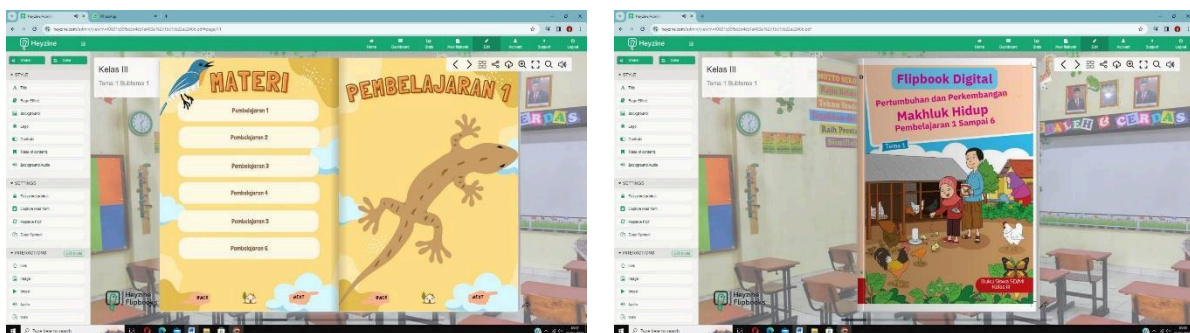
Once you are sure that your flipbook is ready, publish it on the Heyzone website. Choose the configuration options that suit your preferences, such as display mode, access permissions, and more.

7. Share and Promote:

Once published, share your flipbook link through various social media platforms or other channels. Use the promotional features that may be provided by Heyzone to increase the visibility and distribution of your flipbook.

By following these steps, you can create an attractive and easily accessible digital flipbook through the Heyzone platform. Make sure to utilize all available design features to provide an interactive and mesmerizing reading experience for your readers.

(Designing Digital Flipbook-Based Learning Media in Integrated Thematic Learning)





DISCUSSION

The design of digital flipbook-based learning media holds significant importance in integrated thematic learning, especially when focusing on the theme of growth and development of living things in Class III Inclusive Elementary Schools. This form of instructional material enhances the learning experience for students by integrating technology into the educational process. Several key points underscore the importance of digital flipbook-based learning media design in this context;

1. Digital flipbooks allow for content that can be adapted to suit the diverse needs of inclusive classrooms. These materials can be designed with features to accommodate various learning styles, making them accessible to students with different abilities and preferences.
2. The interactive nature of digital flipbooks captures the attention of students, fostering a more engaging learning environment. Incorporating multimedia elements, animations, and interactive features can make the learning experience dynamic, encouraging active participation and understanding of the growth and development theme.
3. The theme of growth and development of living things often involves complex biological concepts. Digital flipbooks provide an effective platform for visually representing these ideas through illustrations, images, and diagrams. This visual aid aids in better comprehension and retention of the subject matter (Novita Putri Amelia Ramdani, Maudy Putri Alamanda, Suci Nur Indah Utami, 2023).
4. Digital flipbooks offer flexibility in terms of content customization. Educators can tailor the learning materials to meet the specific needs of their students, providing additional resources, explanations, or interactive elements as required.

5. In inclusive classrooms, where students have diverse learning needs, digital flipbooks can be adapted to provide alternative formats, such as audio descriptions or larger text sizes. This adaptability ensures that the learning materials cater to the individual requirements of all students.
6. The design of digital flipbook-based learning media empowers teachers to deliver content more effectively. It enables them to present information in an innovative and accessible manner, facilitating a more inclusive and participatory teaching approach.
7. Integrating technology into the learning process exposes students to digital tools early on, preparing them for a technology-driven future. Digital flipbooks not only convey academic content but also contribute to the development of digital literacy skills (Zeni Rahma Dayanti, Resa Respati, 2021).

In conclusion, the design of digital flipbook-based learning media is instrumental in creating an inclusive and effective learning environment for Class III students in integrated thematic learning. It addresses accessibility, engagement, and customization needs, making it a valuable tool in enhancing the understanding of the growth and development of living things

CONCLUSION

The study focuses on the development of electronic handout teaching materials using the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) model, emphasizing its generic learning design that facilitates a well-organized process for both classroom-oriented and online learning. The ADDIE model is chosen due to its systematic approach and the ability to conduct evaluations at all stages, minimizing errors and deficiencies in the final product. However, not all stages of the ADDIE method are implemented in this teaching material development due to practical constraints.

In the analysis stage, student and teacher needs are assessed. Students in Class III Inclusive at Al-Irsyad Al-Islamiyah Elementary School in Jember face challenges in understanding thematic learning material on the growth and development of living things. The majority (80%) struggle with conventional methods, indicating a need for innovative learning media. A digital flipbook is proposed, supported by the preferences of 90% of students for innovative media, 85% for digital-based learning, and 83% for engaging

illustrations. The high agreement (91%) to develop a Digital Flipbook demonstrates the potential effectiveness of this media in facilitating understanding.

The teacher's need analysis highlights the minimal utilization of technology-based learning tools, despite their availability. Time constraints and limited resources hinder teachers from incorporating such tools effectively. The study suggests that the development of technology-based learning media, specifically digital flipbooks, could address these challenges and enhance the quality of teaching in the thematic context.

Moving to the design stage, the steps to create a digital flipbook on the Heyzone website are outlined. This includes selecting a theme, creating a page structure, using Heyzone design tools, adding interactivity, testing, publishing, and sharing. The discussion emphasizes the importance of digital media in education, citing its ability to engage students, simplify learning, aid in retention, and enhance teaching and learning experiences.

In the overall context, the study highlights the crucial role of digital flipbook-based learning media design in integrated thematic learning. It underlines the adaptability, interactivity, and visual representation capabilities of digital flipbooks, catering to diverse learning needs and preparing students for a technology-driven future. The discussion emphasizes the significance of media in education, contributing to improved teaching and learning activities.

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