Development of Flipbook Teaching Materials on Wayang Kulit in Grade IV Cultural Arts Education in Primary Schools

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Abstract

Learning in schools still predominantly uses printed books and lectures without interesting visual media, so students easily get bored, lack focus, and find it difficult to understand the material independently. This study aims to develop flipbook teaching materials for Grade IV Cultural Arts subjects and to test their feasibility and effectiveness. The research was conducted on 14 fourth-grade students at SDIT Darul Istiqomah Palangka Raya. The method used was Research and Development (R&D) with the ADDIE model. The results of validation by subject matter experts (98.07%), design experts (98%), and teacher assessments (86%) showed that the teaching materials were in the highly feasible category. In addition, there was an increase in student learning outcomes from 73.57% on the pre-test to 80.07% on the post-test. Thus, the flipbook teaching materials are considered feasible and effective in improving learning outcomes and student engagement in Grade IV Cultural Arts learning.

Keywords: Teaching Materials; Cultural Arts; Flipbook

Abstrak

Pembelajaran di sekolah masih didominasi oleh penggunaan buku cetak dan ceramah tanpa media visual yang menarik, sehingga siswa mudah bosan, kurang fokus, dan kesulitan memahami materi secara mandiri. Penelitian ini bertujuan untuk mengembangkan bahan ajar flipbook untuk mata pelajaran Seni Budaya kelas IV dan menguji kelayakan serta efektivitasnya. Penelitian ini dilakukan pada 14 siswa kelas IV di SDIT Darul Istiqomah Palangka Raya. Metode yang digunakan adalah Penelitian dan Pengembangan (R&D) dengan model ADDIE. Hasil validasi oleh ahli materi pelajaran (98,07%), ahli desain (98%), dan penilaian guru (86%) menunjukkan bahwa bahan ajar tersebut termasuk dalam kategori sangat layak. Selain itu, terdapat peningkatan hasil belajar siswa dari 73,57% pada pre-test menjadi 80,07% pada post-test. Oleh karena itu, bahan ajar flipbook dianggap layak dan efektif dalam meningkatkan hasil belajar dan keterlibatan siswa dalam pembelajaran Seni Budaya Kelas IV.

Kata Kunci: Bahan Ajar; Flipbook; Seni Budaya

INTRODUCTION

Education is a crucial element in the progress of a nation. Education aims to expand and improve skills and enhance the quality of life and self-esteem of individuals (Sukmana, 2018). Education is a conscious and structured process, not merely an activity carried out routinely without clear objectives, well-thought-out plans, and requirements for living in the country of

residence, both inside and outside the school environment, which is regulated through an established system of rules (Nasution & Siregar, 2019). Improving the learning process has a direct impact on improving the quality of education, which in turn has an impact on improving learning outcomes (Darpindo & Yahya, 2024).

Technological developments in the current industrial revolution 4.0 era have made it easier for us to access various data without time and place restrictions. Certainly, this has had a positive impact in various fields, including the education sector. For example, there are now many online platforms that offer convenience to support students' needs. The learning process should be carried out in an environment that is communicative, motivating, exciting, challenging, and able to encourage students to actively participate. Children learn to express their ideas, feelings, and experiences through artwork, which in turn improves their communication skills (Dinna Aulia & Istiyati Mahmudah, 2024). To that end, every teacher must have a thorough understanding of the media, materials, tools, technology, and processes for creating visualisations of works of art (Mahmudah, 2024).

The teaching and learning process can be achieved if the learning tactics developed are of good quality. This is carried out by educators in order to achieve learning objectives, one of which is through the use of technology and providing various learning resources from learning materials in order to enhance students' experiences and broaden their horizons (Silalahi & Budiono, n.d.). Interactive learning can encourage students to learn with high enthusiasm because of their interest in multimedia platforms that are capable of presenting a combination of text, images, audio, video, and animation (Amanullah, 2020).

Learning in Grade IV at SDIT Darul Istiqomah Palangka Raya is still dominated by the use of printed books and lecture methods without the support of interesting visual media, causing students to quickly become bored, lose focus, and find it difficult to understand the material independently at home. In addition, physical books are often damaged or lost, making it difficult for students to repeat lessons and resulting in low motivation, engagement, and learning outcomes, especially in Cultural Arts subjects. Therefore, innovative learning media that is easily accessible, interesting, and interactive is needed to help improve students' understanding and interest in learning. One solution that can be developed is flipbook-based digital teaching materials, as this media combines text, images, and a display similar to a real book, thereby clarifying the material, facilitating access to learning, and supporting improved learning outcomes for fourth-grade students.

As times change, information technology products and usage are also advancing rapidly, leading to a shift towards more modern learning methods. It is important to adapt to and utilise developments in information technology, particularly in the education sector, as education is one of the most important aspects for the progress of a country (Dwi Yani, Herawati Susilo, 2022). This will certainly lead to flexibility in learning for both educators and students (Mahmudah et al., 2023). The use of teaching materials can stimulate students' motivation to learn, while interactive teaching materials can have a positive impact on their learning outcomes. The integration of technology in the learning process is a step towards improving the effectiveness of learning. One example of technology-based teaching materials is the use of flipbooks (Damanik et al., 2025).

Flipbooks are digital pages that contain learning content accompanied by educational videos relevant to students' lives. Flipbooks are designed to be attractive and provide a more comfortable learning experience, both at home and in the classroom (Aprilutfi, 2022). Flipbooks are digital-based books that make it easy for users to browse through each page with animations and provide interactive features such as videos, audio, links, and animations. These flipbooks can be easily created using free software such as Heyzine, Flipsnack, and Joomag. These applications can also be accessed on mobile phones or tablets, making them practical to use anywhere (Talitha et al., 2023). Flipbooks offer an attractive and easily accessible interactive visual display at any time, helping students understand the material independently and overcoming the obstacles of physical books that are easily damaged or lost. Thus, flipbooks are a relevant solution for enhancing student motivation, engagement, and learning outcomes in the Arts and Culture subject at this school.

Considering the various advantages of Flipbook in shadow puppet material as a more efficient learning access requirement, the researcher aims to develop teaching materials with shadow puppet material using Flipbook for fourth-grade students at SDIT Darul Istiqamah Palangka Raya. This innovation is expected to create teaching materials that are useful for learning achievement and can increase student motivation to learn.

METHOD

This study applied the research and development (R&D) method, which was conducted on 6 May 2025 at SDIT Darul Istiqamah Palangka Raya. The R&D method was used to examine the process of developing Flipbook-based teaching materials and to assess the feasibility of the designed product.

This research is based on the ADDIE model in its development process, which includes five stages. In the analysis stage, the researcher assessed the learning needs of Shadow Puppet, such as media deficiencies, student conditions, teachers, and curriculum requirements as the basis for Flipbook development. In the design stage, the researcher compiled the Flipbook structure containing Shadow Puppet visual content from its history to the steps of its creation. The design was created to be not only visually appealing but also to support learning objectives. In the development stage, the researcher compiled the Flipbook by combining multimedia elements and conducted feasibility tests with subject matter experts and media experts to ensure the validity of the content and appearance. In the implementation stage, the Flipbook was applied in learning to see its effectiveness in improving students' understanding and Shadow Puppet practice results. And in the evaluation stage, the Flipbook was applied in learning to see its effectiveness in improving students' understanding and Shadow Puppet practice results (Sulistyowati et al., 2024), which was carried out sequentially and systematically (Hutauruk et al., 2022).

Data collection was carried out using several techniques, one of which was distributing questionnaires. Quantitative data in the form of scores was obtained from the results of validation tests by experts, namely subject matter experts and design experts, and from the responses of teachers and students through response sheets. Validation by experts included

139

suggestions and criticism of the Flipbook teaching materials developed for arts and culture learning. The instruments used in this study included questionnaires and survey instruments, namely subject matter expert validation questionnaires, design expert validation questionnaires, arts and culture subject teacher assessment questionnaires at SDIT Darul Istiqomah, and student evaluation questionnaires during field trials. The product of this study is teaching materials that meet the criteria of being valid, practical, and useful in supporting the learning process. The results of the grouping of media feasibility categories can be seen in Table 1.

Table 1. Feasibility Categories (Source: Suharsimi Arikunto, 2013: 35)

Percentage Interval	Value
<21%	Very Unfit
21% - 40%	Unfit
41% - 60%	Moderately Fit
61% - 80%	Fit
81% - 100%	Very Fit

RESULTS AND DISCUSSION

Results

The experiments in this study included field testing and validation by experts. This research was conducted through one stage of field testing and assessment by subject matter and design experts. The purpose of this stage was to evaluate the extent to which the teaching materials were suitable for developing learning materials that met the needs and context of the learning environment. Based on the results of previous studies, each material developed must first undergo a validation process to be declared suitable for use in learning activities (Ernawati, 2017).

Subject Matter Expert

The first step is to validate the material. The results of this validation process are shown in the following diagram, which illustrates the material experts' assessment of the Flipbook teaching materials.
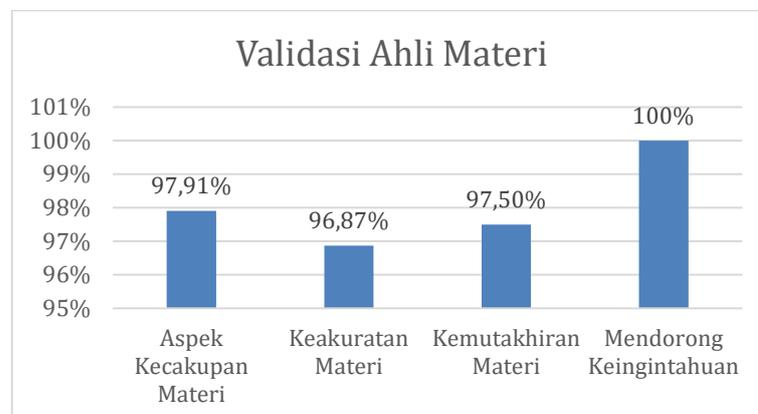

Figure 1. Subject Matter Expert Assessment Chart

The assessment of the content showed very satisfactory results. The comprehensiveness of the material scored 97.91%, accuracy 96.87%, and relevance 97.50%, confirming that the flipbook meets the curriculum, presents accurate information, and is relevant to learning needs. A perfect score of 100% on the student curiosity indicator shows that the flipbook is able to attract attention and motivate students through attractive visual presentation and easy-to-understand material. These results indicate that the content of the flipbook is not only academically sound, but also effective in supporting increased interest and understanding in student learning.

Design Expert

Next, validation from design experts. The following diagram shows the assessments given by design experts to the teaching materials.
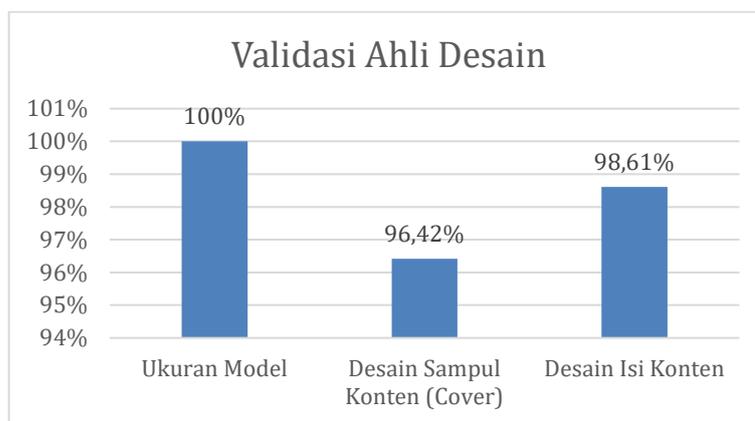
Figure 2. Design Expert Assessment Chart

The results of the design assessment indicate excellent design quality. A score of 100% on the model size indicates that the flipbook is proportionally designed and comfortable for students to use. The cover design scored 96.42% and the content design scored 98.61%, indicating that the visual appearance of the flipbook is attractive, clear, and in line with learning needs. These findings show that the flipbook design is able to increase students' interest and focus in understanding the material.

Teacher Assessment Results

Teachers as practitioners evaluate the learning materials designed as shown in the figure. The results of the field test are shown in the graph below.
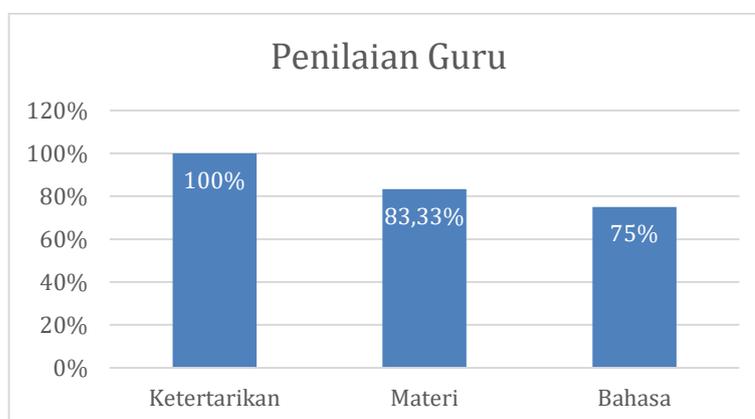

Figure 3. Teacher Assessment Chart

The evaluation results showed a very positive response to the flipbook, with a perfect score of 100%, confirming the visual power of the media in attracting students' interest. The material aspect received a score of 83.33%, indicating that the content was considered appropriate and supportive of learning. However, the score of 75% for the language aspect showed that the language in the flipbook needed to be simplified to make it easier for students to understand.

Field Test Results

The evaluation was conducted on 14 fourth-grade students. The field test results are shown in the graph below.
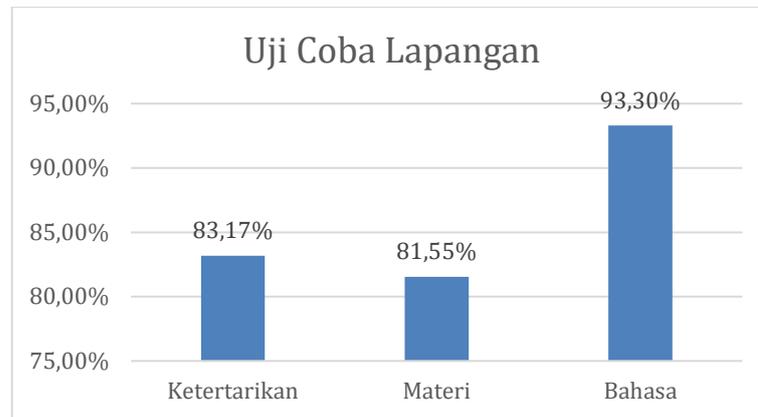
Figure 4. Field Test Evaluation Chart

The evaluation results showed positive responses from students towards the flipbook. The interest aspect scored 83.17%, indicating that the media was quite interesting and motivated students. The material aspect scored 81.55%, indicating that the content of the flipbook was in line with learning needs. Meanwhile, the language score of 93.30% indicates that the language is very easy for students to understand. These results confirm that the flipbook is effective in supporting understanding and interest in learning.

Discussion

Analysis

The initial stage of this research was to conduct a needs analysis, the results of which were used as the basis for developing flipbook teaching materials. One of the advantages of flipbooks is their interactive features, such as text, images, audio, and video, which not only help students understand the material but also encourage increased creativity and digital skills. In addition, this platform provides flexible access, giving students the opportunity to learn anytime and anywhere according to their needs (Rahman, 2021).

Design

In the design stage, the researchers began to compile the product to be developed in the form of digital teaching materials in the form of flipbook teaching materials. The teaching material design process was carried out by creating flowcharts and storyboards. Flowcharts serve as a guide to ensure that the development of teaching materials runs systematically and in accordance with the objectives (Syabrina & Sulistyowati, 2020).
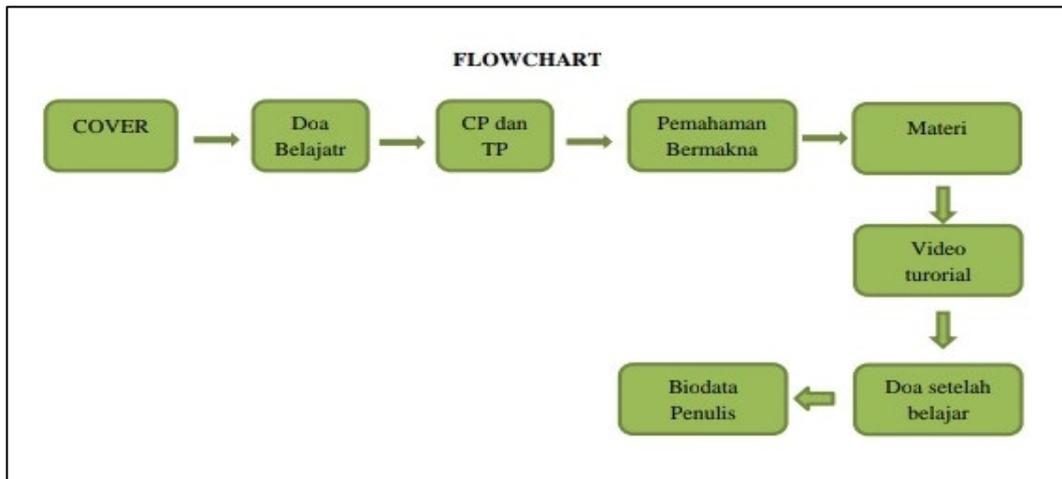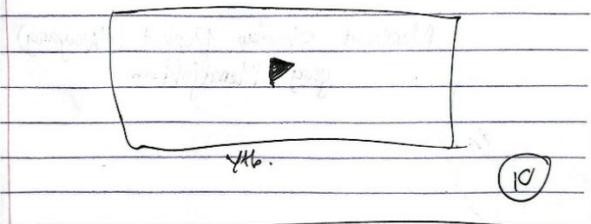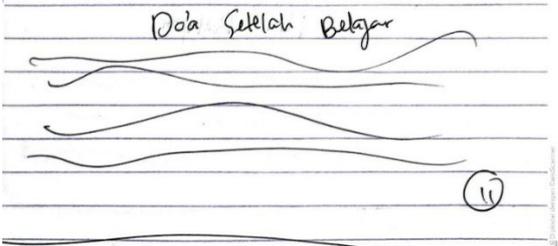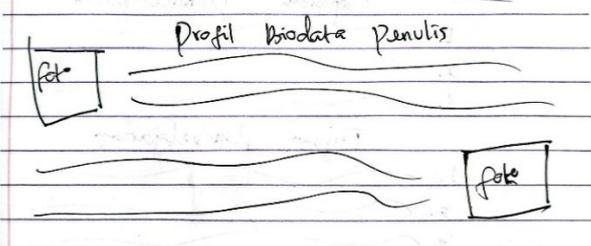
Flowchart

Figure 5. Flowchart

Storyboard

Table 2. Storyboard

The cover contains the title, the IAIN logo, the Merdeka Belajar logo, and the PGMI study programme logo.	Prayer before studying and its meaning.
The next page contains CP and TP.	Next, on page 3, there is a meaningful understanding of Puppet Shadow. .

The next page contains lesson material and sample images related to the material.	There is a video tutorial on how to make shadow puppets (wayang).
The next page contains a prayer after studying.	The next page contains the author's profile, including their biography and photo.

Development

In the early stages of development, a flipbook teaching material was created for the fourth grade arts and culture subject. Effective teaching materials should be able to attract students' interest and make the learning process more interesting and enjoyable. The process of developing this flipbook teaching material began with compiling the material, which included illustrations, videos, and practice questions (Sakti & Purwowidodo, 2024).

Figure 6. *Flipbook*

Implementation

The implementation stage involved the use of teaching materials that had been developed and validated by media experts and subject matter experts. In addition, the teaching materials were tested on students through field trials involving 14 students. The implementation stage can be seen in the graph below:
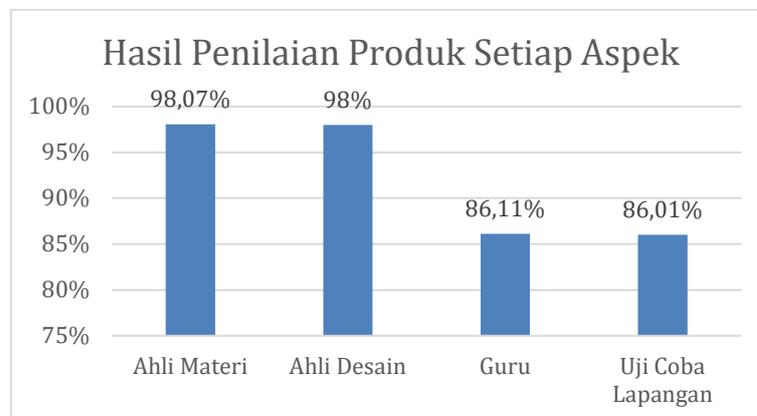

Figure 7. Overall Assessment Chart

The high approval rating from experts and teachers shows that flipbooks are not only good in concept, but also practical for use in the classroom. Field test results confirm that this medium is able to increase student engagement and understanding during learning. These findings show that the implementation of flipbooks has the potential to improve the quality of learning compared to conventional methods.

Figure 8. Trial in class IV

Evaluation

The final step in the ADDIE model is evaluation, which aims to measure the extent of student learning outcomes after utilising the designed teaching materials (Ardhani et al., 2021). The findings of this study are in line with the research by Yulaika et al., which proves that the use of flipbook-based electronic teaching materials can improve student learning outcomes because they present text, images, and videos interactively, making learning more interesting and easier for students to understand.

Theoretically, flipbooks work effectively because they support the visual learning process, where the presentation of information through a combination of text and images can strengthen conceptual understanding and reduce learning fatigue compared to regular printed

145

books. The flipbook's features, which resemble a real book but are more flexible, help students access material at any time, repeat information, and understand learning steps without having to rely entirely on the teacher's explanations. Therefore, the increase in students' post-test scores in this study can be explained conceptually: flipbook media are not only attractive but also facilitate understanding and long-term memory, thus directly impacting the improvement of student learning outcomes.
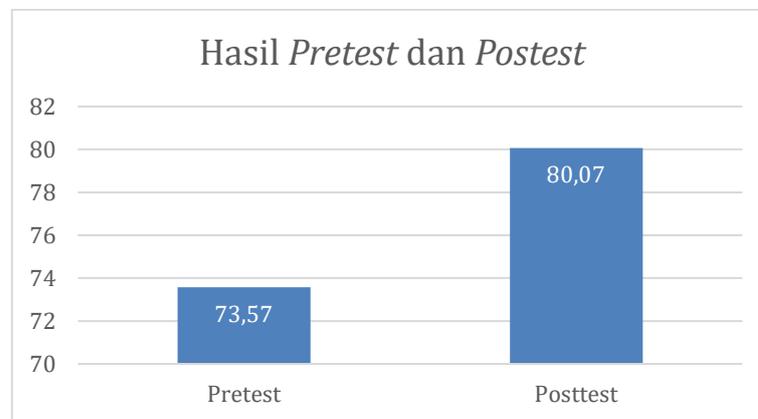

Figure 9. Pre-test and Post-test Results Chart

There was an increase in student learning outcomes after using the teaching materials. The average pretest score of 73.57% increased to 80.87% on the posttest, demonstrating the effectiveness of the teaching materials in supporting material comprehension.

CONCLUSION

Based on the development results, the Flipbook teaching materials are highly suitable for use based on expert validation with high scores, and contribute significantly to improving the quality of learning. As a result, Flipbook can be utilised by teachers as an engaging, interactive digital medium that helps improve student motivation and understanding, while also serving as a reference for the development of other learning media in schools. Further research is recommended to test the effectiveness of Flipbook experimentally, expand the research subjects, and develop additional features to optimise the product's results.

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