

Development of Canva-Based Interactive Learning Media with PBL Approach for Fourth Grade IPAS Lessons

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Abstract

Education plays a crucial role in the development of the Society 5.0 era, which encourages the renewal and utilization of technology to facilitate learning through digital-based media. However, in reality, conventional media are still widely used, and many teachers are not yet able to optimize technology to innovate learning media. This study aims to produce a valid and practical interactive learning media using the Canva application for IPAS learning based on Problem-Based Learning (PBL) in fourth grade of elementary school. This is a research and development study applying the ADDIE model, which includes Analysis, Design, Development, Implementation, and Evaluation phases. The research was conducted in Cluster 5 of Lembah Gumanti District, involving three elementary schools: SDN 02 Sungai Nanam, SDN 18 Sungai Nanam, and SDN 26 Sungai Nanam. The developed media were validated by experts and tested in the aforementioned schools to measure practicality. The results showed that the developed media achieved a validation score of 97%, categorized as very valid. Practicality results based on teacher responses reached 95.23%, and student responses reached 97.57%, both categorized as very practical. Therefore, the developed Canva-based interactive learning media for PBL-oriented IPAS learning is proven to be highly valid and practical.

Keywords: Interactive Media, Canva, Problem-Based Learning, Elementary School, Ipas



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Introduction

Education plays a crucial role in preparing high-quality human resources (HR) to face the challenges of the Society 5.0 era. This era demands mastery of technology and critical thinking skills integrated into social life. Therefore, today's education system needs to emphasize the development of 21st-century skills, known as the 4Cs: Creativity, Critical Thinking, Communication, and Collaboration (Santoso, 2021). One important strategy for achieving relevant and adaptive learning in the face of changing times is the use of interactive, digital-based learning media (Erita et al., 2022).

Learning media is a vital component in improving the quality of education. Beyond serving as a teaching aid, effective media can stimulate learning interest, clarify concepts, and create meaningful learning experiences (Jalinus & Ambiyar, 2016; Daniyati, 2023). However, field observations reveal that the variety of learning media used by elementary school teachers remains limited. Observations and interviews conducted by the researcher in several elementary schools in Lembah Gumanti Subdistrict indicate a gap between the availability of technological facilities and their actual use in the learning process.

At SDN 18 Sungai Nanam, based on observations conducted on September 25, 2024, the fourth-grade teacher used learning media in IPAS instruction, but the media were still conventional in nature, such as posters and videos from the internet. The teacher stated that the use of technology, such as

projectors and instructional videos, was only occasional and considered optional. This resulted in less engaging lessons, passive students, and difficulties in understanding the material.

A similar situation was observed at SDN 26 Sungai Nanam on October 4, 2024. Although the school has sufficient facilities such as digital devices and stable internet access, there has been no initiative to develop technology-based learning media, including the use of design applications such as Canva.

Meanwhile, at SDN 02 Sungai Nanam, observations conducted on October 22, 2024, showed that the teacher primarily used simple concrete media. This was despite the school providing devices such as Chromebooks and reliable internet access. The lack of digital media optimization led to monotonous learning experiences, decreased student enthusiasm, and difficulty in understanding abstract concepts, particularly in IPAS subjects.

A student needs analysis using questionnaires distributed to fourth-grade students indicated a high level of interest in the use of technology in learning. However, the integration of digital media into teaching remains minimal. This has made IPAS learning less contextual and ineffective in helping students grasp real-world phenomena around them.

Considering that IPAS in the Merdeka Curriculum integrates natural and social sciences and demands comprehension of complex and abstract concepts, elementary students require learning media that are visual, interactive, and contextual (Adnyana & Yudaparmita, 2023; Lestari et al., 2023). One potential solution is the development of Canva-based learning media. Canva is an accessible online graphic design application with many interactive features. It allows the creation of media combining text, images, audio, and animation, designed to be engaging and supportive of active learning (Tegar, 2022; Salam & Adam, 2021).

This aligns with previous studies indicating that the use of Canva in learning can enhance student interest, creativity, and engagement (Triningsih, 2021; Putri, 2022; Febriana & Tantri, 2023). However, most Canva-based learning media developed so far are not yet interactive and have not been widely implemented at the elementary level. Therefore, this study aims to develop interactive learning media using the Canva application with a Problem-Based Learning (PBL) approach for fourth-grade IPAS subjects in elementary schools.

Methods

This study employs a Research and Development (R&D) approach. R&D research is a type of basic research activity aimed at obtaining information through a needs assessment, followed by development activities to produce a product and test its effectiveness. The R&D approach is used in this study because the research aims to produce a product in the form of an interactive learning media based on Canva for the IPAS (Natural and Social Sciences) subject for fourth-grade elementary school students. The research follows the ADDIE model, which includes five phases: Analysis, Design, Development, Implementation, and Evaluation (Branch, 2009). The development steps of the model can be described as follows:

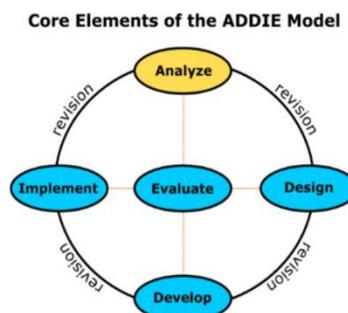


Figure 1. Instructional Design; The ADDIE Approach
Sumber: Robert Branch (2009)

This study was conducted at three elementary schools SD Negeri 18 Sungai Nanam, SD Negeri 26 Sungai Nanam, and SD Negeri 02 Sungai Nanam during the 2024/2025 academic year. The research involved three expert validators: a content expert, a language expert, and a media expert. Data collection instruments included media validation questionnaires (by the experts), practicality questionnaires (by teachers and students), and learning effectiveness tests (based on pretest and posttest results). All instruments were developed by the researcher with reference to relevant literature (Arikunto, 2017; Zunaidah & Amin, 2016).

Results and Discussions

1. Results

The product developed in this research is a Canva-based learning media for the IPAS subject, specifically on the topic of Cultural Diversity in Indonesia for Grade 4 elementary school students. This learning media is presented in an audiovisual format to facilitate students' understanding during the learning process. The research employed the ADDIE model, and the following are the stages carried out in the development process:

a. Analysis

The analysis stage involved examining the curriculum, subject matter, media, and the needs of both teachers and students. Initial analysis was conducted through school observations and interviews to identify these needs. Findings revealed that the use of IPAS learning media was not yet optimal, particularly in utilizing information and communication technology such as Canva.

Material and media analysis was aligned with the Merdeka Curriculum, aiming to determine the appropriate IPAS content for Grade 4, especially on the topic of Indonesia's Cultural Diversity. This process included reviewing the learning objectives (Capaian Pembelajaran) and relevant teacher and student textbooks from the Merdeka Curriculum.

b. Design

The second stage is designing the Canva-based IPAS learning media on the topic of Cultural Diversity in Indonesia for Grade 4 elementary students. The learning content was developed based on the analysis of the formulated Learning Outcomes (Capaian Pembelajaran or CP). The resulting Canva-based IPAS learning media includes the following components:

1) Cover Page



Figure 2. Cover

2) Menu Page



Figure 3. Menu Page

3) Submenu Page – Instructions



Figure 4. Instructions

4) Submenu Page – Profile



Figure 5. Profile

5) Submenu Page – CP and Learning Objectives



Figure 6. CP Learning



Figure 7. Learning Objectives

6) Submenu Page – Learning Material



Figure 8. Learning Material

7) Submenu Page – Ice Breaking



Figure 9. Ice Breaking

8) Submenu Page – Quiz



Figure 9. Quiz

9) References Page



Figure 10. References Page

10) End of Lesson Page



Figure 11. End of Lesson Page

c. Development

At this stage, the researcher developed the Canva-based learning media product with the assistance of three experts: a content expert, a language expert, and a media expert. The results of the feasibility analysis from these three validation experts are as follows:

- Based on the content validation, the learning media was deemed feasible for trial implementation, with a score of 100%, indicating a “very valid” category.
- Based on the language validation, the media was also considered suitable for trial use, receiving a score of 100% and categorized as “very valid.”
- Based on the media validation, the product was found to be feasible for trial implementation, with a score of 90%, also falling into the “very valid” category.

d. Implementation

At this stage, the developed learning media product was tested on students in Cluster 5, which consists of three elementary schools: SDN 02 Sungai Nanam with 18 students, SDN 18 Sungai Nanam with 22 students, and SDN 26 Sungai Nanam with 19 students, located in Lembah Gumanti District, during the learning process. The implementation of the media began with preparing all the necessary facilities and materials, as well as setting up the classroom environment. Once everything was ready, the researcher applied the developed media in the learning process. After the learning session, the researcher distributed response questionnaires

to both teachers and students to gather feedback regarding the practicality of the Canva-based learning media.

e. Evaluation

The evaluation stage is the final phase of this research process. At this stage, the evaluation was conducted based on questionnaire results collected from both teachers and students. The purpose was to assess the practicality of the Canva-based learning media that had been developed.

The teacher evaluation was carried out by three teachers. Based on their questionnaire responses, a score of 95.23% was obtained, indicating that the learning media falls into the "highly practical" category. The details are as follows:

Table 1.
Results of Media Practicality Assessment by Teachers

No	Teacher Initials	School of Origin	Response to Statement							Total Score	Percentage
			1	2	3	4	5	6	7		
1.	H, S.Pd	SDN 18 Sungai Nanam	4	4	4	3	4	4	4	27	96,4 %
2.	RN, S.Pd	SDN 26 Sungai Nanam	4	4	4	3	3	4	4	26	92,8%
3.	MO, S.Pd	SDN 02 Sungai Nanam	4	4	4	3	4	3	4	27	96,4%
Overall Average										95,23%	

Furthermore, the student evaluation was conducted with students from Cluster 5, which includes three elementary schools: SDN 02 Sungai Nanam with 18 students, SDN 18 Sungai Nanam with 22 students, and SDN 26 Sungai Nanam with 19 students all located in Lembah Gumanti District. The student questionnaire results showed a percentage of 97.57%, which is also categorized as "highly practical." The details are as follows:

Table 2.
Results of Media Practicality Assessment by Students

No	School of Origin	Average (%)
1.	SDN 18 Sungai Nanam	96,96
2.	SDN 26 Sungai Nanam	97,14
3.	SDN 02 Sungai Nanam	98,61
Total (%)		292,71
Overall Average		97,57

2. Discussions

Based on the findings of this study, the development of interactive learning media using the Canva application for Integrated Natural and Social Sciences (IPAS) learning, based on the Problem-Based Learning (PBL) approach in Grade IV of elementary school, has demonstrated positive outcomes and aligns well with the development model employed. The development followed the ADDIE model, which includes five stages: (1) analysis, (2) design, (3) development, (4) implementation, and (5) evaluation. These stages were carried out systematically to ensure that the media met criteria of effectiveness, efficiency, and attractiveness in the learning process.

The results indicated that the interactive learning media developed through Canva met both validity and practicality criteria, thus making it suitable for use in IPAS learning, particularly on the topic of Indonesia's Cultural Diversity. This conclusion is supported by expert validations and positive feedback from media users in real classroom settings.

1. Validity of the Learning Media

The learning media was validated by experts in content, language, and media. The results indicate that the interactive learning media using Canva met the criteria of "very valid", and is therefore suitable for use in teaching IPAS, particularly on the topic of "Cultural Diversity in Indonesia."

a. Content Expert Validation

The content was assessed based on its alignment with learning outcomes and objectives (CP and TP), logical sequencing, and relevance to the PBL framework. Validation was conducted in two rounds, with revisions made based on expert suggestions. The final result showed a validity score of 96%, categorized as "very valid" based on the criteria by Zubaidah & Amin (2016), who define the 81%-100% range as "very valid." This supports the assertion that "content in educational media must be systematically arranged and aligned with learners' needs" (Zubaidah & Amin, 2016).

b. Language Expert Validation

The language validation included readability, clarity, grammatical correctness, and punctuation. After two rounds of validation and revisions, the final score reached 97.7%, indicating very high validity. This suggests that the language used in the media is effective, efficient, and easy to understand. As Wulandari (2020) stated, the language in learning media should "enhance conceptual understanding and support students' focus during the learning process."

c. Media Design Expert Validation

The media was assessed based on visual components such as background design, localization, and integration of videos. Revisions were made in accordance with expert feedback. The final validation score was 97.3%, again falling into the "very valid" category. Aesthetic quality and local relevance are essential in learning media. According to Hamid et al. (2020), effective educational media "not only convey ideas but also stimulate emotions and interest through visually engaging presentation."

2. Practicality of the Learning Media

In addition to validity, the practicality of the media was assessed through questionnaires distributed to teachers and students. The aim was to determine how effectively the media could be implemented in real classroom settings.

a. Teacher Responses

Teachers from three elementary schools participated in the evaluation. SDN 02 and SDN 18 Sungai Nanam both rated the media at 96.4%, while SDN 26 rated it at 92.8%. These scores were based on ease of use, content relevance to CP and TP, and the media's usefulness in the teaching process. According to Maulita & Erita (2021), scores in the 81%-100% range are considered "very practical," indicating that the media is highly functional in classroom teaching.

b. Student Responses

Students' responses also showed a high level of practicality. In SDN 02 Sungai Nanam, 18 students rated the media at 98.61%; in SDN 18 (22 students), the score was 96.96%; and in SDN 26 (19 students), the score was 97.14%. These ratings were based on the attractiveness of the media's design, the engagement level of the videos and images, and how well the media helped them understand the material. Wulandari (2020) argues that interactive media "can enhance students' cognition, emotions, focus, and talents," thereby promoting effective learning.

Conclusion

Referring to the results of the research that has been conducted, it can be concluded that the development of interactive learning media based on the Canva application using a Problem-Based Learning (PBL) approach in the Integrated Natural and Social Sciences (IPAS) subject for Grade IV elementary school students has shown highly positive outcomes. A series of validity tests conducted by experts indicate that the media falls into the "highly valid" category. Validation by subject matter experts resulted in a score of 100%, indicating that the content aligns well with the learning objectives (CP) and learning outcomes (TP). Validation by language experts also achieved a 100% score, demonstrating accurate, communicative, and grammatically appropriate language usage. Meanwhile, media design experts awarded a score of 90%, reflecting that the visual design is attractive and contextually appropriate for the students' local environment. Based on these results, it can be concluded that the Canva-based learning media is highly suitable for use in classroom instruction.

In addition to its validity, the media has also been proven to be highly practical based on practicality tests conducted in three elementary schools. Teacher responses showed a very high level of practicality, with scores of 96.4% at SDN 02 and SDN 18 Sungai Nanam, and 92.8% at SDN 26 Sungai Nanam. This indicates that the media effectively supports teachers in delivering content aligned with the CP and TP. Similarly, student responses were also very positive, with scores of 98.61% at SDN 02, 96.96% at SDN 18, and 97.14% at SDN 26. These results demonstrate that the media is engaging, not monotonous, and helps students better understand the material. Therefore, in terms of both validity and practicality, this Canva-based interactive learning media is highly appropriate and effective for implementation in PBL-based IPAS learning activities in Grade IV elementary school, particularly on the topic of Cultural Diversity in Indonesia.

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