

Development of Interactive Flash Card Media in Cultural Diversity Learning

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Abstract. This research seeks to: 1) Create interactive learning tools in the form of flash cards focusing on cultural diversity for fourth-grade elementary students; 2) Assess the viability of the interactive flash card learning tools through evaluations by material and media specialists; and 3) Examine student reactions to interactive flash card learning tools in cultural diversity education. This research involves a form of research and development (R&D) that employs the ADDIE model, consisting of Analysis, Design, Development, Implementation, and Evaluation. The participants in this research were fourth graders from SD Negeri 1 Trirenggo Bantul, whereas the focus of the study was on interactive flash card learning media related to cultural diversity content. The assessment of feasibility was conducted by experts in materials and media, with data gathered through observations, interviews, validation questionnaires, and student feedback forms. The data analysis method employed a descriptive approach that was both quantitative and qualitative. The study's findings indicated that: 1) This interactive flash card educational tool is made up of three primary components: the introduction, the main section, and the conclusion. The start includes the cover page, the aim of media creation, and usage guidelines. The central part showcases the primary material through engaging images of traditional homes, local attire, and regional musical instruments, accompanied by explanatory video links in the underlined text. The last part includes an interactive quiz to assess students' comprehension, and there is also a section about the author's background. This media is considered highly feasible, receiving a validation score of 95% from material specialists and 92% from media specialists. Student replies to the media reflect a highly positive category with an average score of 86%.

Keywords: Interactive Flash Card, Cultural Diversity Learning, Media

Introduction

Education plays a crucial role in shaping individuals who are able to adapt to social and cultural diversity. Law No. 20 of 2003 emphasizes that the goal of education is to educate the nation and shape dignified human beings. However, the quality of education in Indonesia still faces various challenges. Education is seen as a conscious and planned effort to create a learning process that encourages the development of students' potential holistically, covering spiritual aspects, personality, intelligence, morals, and skills needed in community and state life (Abdullah, 2014).

The Programme for International Student Assessment (PISA) report shows that Indonesia still ranks low globally, which is largely due to limited educational facilities and minimal use of innovative learning media. Therefore, efforts are needed to develop interesting learning media that are in accordance with the needs of today's students in order to improve their motivation and quality of learning.

Interesting learning media play an important role in creating an effective and enjoyable learning atmosphere. One of the media that has been proven to be effective in supporting the learning process is flashcards. Flashcards are visual media that combine images and text to help students understand certain concepts more easily and enjoyably.

Research by Krisdiana & Jamaludin (2023) shows that the use of flashcard media can improve the learning outcomes of fourth-grade elementary school students, especially in the Pancasila Education subject on the diversity of traditional houses in Indonesia. However, in many schools, including SD Negeri 1 Trirenggo, Bantul, the use of flashcards is still conventional

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and has not been optimized, so students tend to be passive and less enthusiastic in participating in learning. So far, learning has only used PowerPoint media, which is passive and can only be seen. On the other hand, the use of flashcards allows students to be more active because they can be played with and interacted with directly. In this way, students not only interact directly with the material but also strengthen their memory through games and increase learning motivation, so that the learning process becomes more interesting, participatory, and effective.

Learning about cultural diversity in grade IV elementary school includes introducing traditional clothing, musical instruments, and traditional houses from various regions in Indonesia. However, the delivery of this material is often done less interestingly, so that students are less actively involved in the learning process. Based on the results of the researcher's interview with the class teacher, the flashcard media used is still simple and less interactive, so it has not been able to attract students' attention optimally. Simply put, the media can be seen from the display, which only displays images and text without additional elements such as striking colors, vivid illustrations, or in-depth explanations that can foster students' curiosity. For example, images of traditional clothing without information about their cultural or historical meaning tend not to attract interest in learning. In addition, the lack of media interactivity results in students not having the opportunity to participate actively, such as through games, discussions, or group activities that involve the direct use of flashcards. The use of flashcards that only focus on memorization without supporting activities such as quizzes or role plays will make learning feel monotonous. As a result, students do not get a pleasant learning experience, and their understanding of the material on cultural diversity is less than optimal.

Indonesia's cultural diversity is a valuable heritage that needs to be preserved and understood by the younger generation. The use of interactive flashcard media with attractive and informative visuals is expected to help students understand and appreciate the nation's cultural richness more easily and enjoyably. Research by Suratiningsih (2024) shows that the social studies learning strategy using traditional house flashcards has proven effective in introducing Indonesian culture to elementary school students. This discovery highlights the significance of innovating in educational media, particularly for topics concerning cultural introduction, ensuring that the learning experience is more relevant, engaging, and impactful for learners.

The necessity of creating interactive flashcard media is supported by studies indicating that visual content can enhance student participation in the educational experience. A research study carried out by Saragih et al. (2015) demonstrated that utilizing flashcards enhances students' comprehension of the material. Featuring an appealing design and pertinent content, interactive flashcards aid students in grasping the material more thoroughly while also promoting the principles of tolerance and appreciation for cultural diversity. Consequently, creating this learning media is a strategic move to enhance the educational quality, particularly at SD Negeri 1 Trirenggo, Bantul.

During the learning process, various pressing issues must be tackled right away, such as the reliance on traditional flashcard materials, minimal student engagement, and their indifferent behavior in class. This situation also influences students' limited grasp of the content regarding Indonesian cultural diversity. Consequently, there is an urgent need for the creation of more innovative learning tools, like interactive flashcards, to enhance engaging, interactive, and significant learning experiences for fourth-grade elementary school pupils.

Materials and Methods

This research method uses a Research and Development (R&D) approach with the main objective of developing interactive learning media in the form of flash cards for cultural diversity materials. This research aims to produce effective and efficient products through systematic stages, starting from identifying needs, designing, to testing in the field. The development model used is ADDIE (Analysis, Design, Development, Implementation, and Evaluation), which provides a structured framework in the media development process. Each

stage in this model focuses on collecting needs data, designing content and media, developing products, implementing them in real learning environments, and evaluating media effectiveness. With this approach is anticipated that the produced media can assist teachers and students in achieving learning goals, particularly at SD Negeri 1 Trirenggo, Bantul, while fulfilling the criteria for quality, efficiency, and effectiveness in education.

The creation of this learning media involves the ADDIE model, which includes five phases: Analysis, Design, Development, Implementation, and Evaluation. During the analysis phase, researchers pinpoint the requirements of both students and teachers, along with any current learning limitations. The design phase involves creating engaging flash card content, visuals, and interactions that align with the needs of fourth-grade students. Moreover, during the production phase, media is generated with graphic software, assessed by specialists, and modified based on feedback. Implementation takes place in class via interactive activities like quizzes and discussions to boost student involvement. Ultimately, the assessment phase involves administering surveys to gauge student feedback and the impact of the media in enhancing understanding of cultural diversity.

This study employed non-test methods for data collection, specifically observation, interviews, and questionnaires, to gather detailed and precise information. Observations were carried out to directly witness the actions of teachers and students while learning with interactive flash cards, particularly regarding student participation and reactions. Interviews were conducted to gather detailed insights from teachers and students about their needs, expectations, and experiences related to media usage. Simultaneously, questionnaires were employed to evaluate the feasibility of media by material and media specialists, assess the usability by educators, and gauge the level of student satisfaction with the created media.

The data analysis method utilized in this research employed two strategies: quantitative and qualitative. Quantitative analysis was employed to evaluate the feasibility, practicality, and student satisfaction with flash card media based on questionnaire outcomes. Data were examined by determining the average and percentage, subsequently categorized into five groups, from very unfeasible to very feasible. Simultaneously, qualitative analysis assessed the necessity, validity, and feasibility of the media through interviews, observations, and expert feedback. The analytical method pertains to the Miles et al. (2014) framework, which includes three phases: data reduction (selecting pertinent information), data display (arranging in narrative or tabular form), and drawing conclusions and verification (formulating meaning and verifying with additional data).

Results and Discussion

Results

Development of Interactive Flash Card Media in Cultural Diversity Learning in Grade IV at SD Negeri 1 Trirenggo Bantul

The development of interactive flash card media began with a needs analysis through interviews and observations in class IV of SD Negeri 1 Trirenggo Bantul, which showed the need for more interesting and contextual learning media. This media was developed using the Canva application and consists of three main parts, namely the beginning, content activities, and the end.

The Beginning

In the beginning, there are four main components: The front cover, attractively designed with illustrations of students wearing traditional clothes and the logo. Educational institutions, predominantly cream and brown in color. Introduction, contains two paragraphs about the importance of social studies learning and cultural diversity, as well as the author's expectations. The aim is to explain the function of media as an alternative to enjoyable learning, accompanied by illustrations of Balinese traditional houses and traditional dances. Instructions for use, containing steps for preparing and using media in learning, both individually, in groups, and as a

class, complete with illustrative images such as dancers and traditional musical instruments. This initial section is designed to provide students with a comprehensive and engaging overview before they interact directly with the flash card content.

Contents Section

The content section of the interactive flash card media is designed to strengthen students' understanding of Indonesia's cultural diversity through a visual and interactive approach. The first stage begins with an apperception activity, which displays a slide containing the initial question "what will we learn," accompanied by an introduction to the diversity of Indonesia's regions. This slide uses a white background, green text, and an illustration of a traditional Papuan house as a visual attraction. Furthermore, in the core activity, there are three main components: Concept description, which presents cultural images such as traditional houses, traditional clothing, and regional musical instruments, accompanied by brief explanations to help students understand. Description of Indonesia's cultural diversity, featuring images from various provinces accompanied by explanatory videos, makes the material more lively and easier to understand. The interactive quiz, in the form of a crossword puzzle that includes the names of traditional houses, regional dances, and traditional musical instruments, is designed to increase student participation and memory through games.

The End

The final section of the media presents the author's profile, complete with a photo, and includes the name of the supervisor as a form of academic recognition. The slide background uses a picture of a traditional Balinese house, closing the media display with a cultural nuance that remains consistent and interesting. Overall, the content and ending sections of this flash card are designed not only to convey the material but also to create a fun and meaningful learning experience for students.

The Feasibility of Developing Interactive Flash Card Media in Cultural Diversity Learning in Grade IV at SD Negeri 1 Trirenggo Bantul, According to Media Experts

The creation of interactive flash card media for teaching cultural diversity to grade IV students at SD Negeri 1 Trirenggo Bantul has undergone a validation procedure by both media and material experts. Media experts' validation results indicated an average score of 3.70 with a percentage of 92%, placing it within the highly feasible category. The evaluation encompasses elements of typography, illustration, color, material, and user-friendliness. This indicates that this media has fulfilled the criteria for visual quality and technical practicality for educational use.

In the meantime, validation from material experts yielded an average score of 3.83 with a percentage of 95%, also categorized as very feasible. The evaluated aspects encompass the appropriateness of the content, the correctness of the information, and the delivery. Material specialists offered insights to elucidate the role of videos in the media and recommended incorporating other cultural aspects, like folklore, to enhance the depth and richness of the material. Based on these validation results, it can be concluded that using interactive flash card media is highly suitable for testing and implementing in teaching cultural diversity in elementary schools.

Teacher Assessment of the Practicality of Developing Interactive Flash Card Media in Cultural Diversity Learning in Grade IV at SD Negeri 1 Trirenggo Bantul

The development of interactive flash card media in learning cultural diversity in grade IV at SD Negeri 1 Trirenggo Bantul showed very positive results, both in terms of practicality of use by teachers and student satisfaction levels. Based on the results of the practicality test, teachers gave an assessment with an average score of 3.58, or equivalent to a percentage of 82%, which is included in the very feasible category. Teachers considered that this flash card media is easy to use in learning, does not require a long time to prepare, and can help in delivering material in a more interesting and representative way. This media is deemed effective in enhancing students'

comprehension of Indonesian cultural diversity and aiding in the development of a more enjoyable and engaging learning environment.

According to the students, the satisfaction level test yielded an average score of 4.3 or 86%, placing it in the very satisfied category. Students mentioned that the design of the flash card materials captured their interest, made social studies more engaging, and aided them in comprehending and recalling the lesson content more efficiently. They experienced joy in learning through this medium since they were able to engage while playing and expressed enthusiasm for incorporating similar media in other subjects. Observations during learning revealed that students were engaged, concentrated on tasks, capable of collaborating in groups, and displayed significant initiative and enthusiasm. Setelah kegiatan belajar selesai, siswa secara spontan mengungkapkan bahwa mereka senang dengan penggunaan media kartu flash ini.

In general, the creation of interactive flash card materials is viewed as highly practical for educating on cultural diversity. This medium is useful, efficient, and appreciated by students, enhancing the quality of the classroom learning experience.

Discussion

Development of Interactive Flash Card Media in Cultural Diversity Learning in Grade IV at SD Negeri 1 Trirenggo Bantul.

The development of flash card media begins with conducting a field needs analysis obtained through interviews with class teachers. Then continued by designing media based on theory and research results through articles. This is following the theory of Dick et al. (2001) stating that needs analysis is a very important initial step in developing learning media. The goal is to ensure that the product developed is in accordance with field needs. The difference in this study is aimed at children aged 9 to 10 years by considering the characteristics of the child. Based on this, the development of media that begins with a needs analysis and continues with a design based on theory and research results is a systematic step to produce relevant and applicable learning media.

The Feasibility of Developing Interactive Flash Card Media in Cultural Diversity Learning in Grade IV at SD Negeri 1 Trirenggo Bantul, According to Media Experts

The results of the media expert validation assessment, the development of interactive flash card media in cultural diversity, were declared very feasible. According to Pratama et al. (2022), the feasibility of interactive learning media must meet the elements of text, images, colors, materials, and media use. The development of flash card media produced by researchers is visual-auditory. This is in line with Santrock (2011) that children aged 9 to 10 years are in the concrete pre-operational stage, so that children find it easier to understand concepts presented visually. The advantage of this flash card development is that it is presented in the form of images, descriptions, videos, and sounds so that students can adjust to their learning style.

Based on the validation results, the development of flash card media is very suitable to be implemented in learning about Indonesian cultural diversity for grade IV students.

Feasibility of Developing Interactive Flash Card Media in Cultural Diversity Learning in Grade IV at SD Negeri 1 Trirenggo Bantul, According to Material Experts

The results of the validation of the development of flash card media according to material experts were declared very feasible. Material experts assessed that the contents of the flash cards reflected cultural diversity thematically and contextually, in accordance with the content of social studies lessons in grade IV. In addition, the material is presented in simple, communicative language, and is easy for students to understand. This is in line with the principle of contextual learning, which suggests that learning content be connected to students' real lives (Hosnan, 2021). According to Saputro et al. (2013), learning material feasible media must present factual, relevant information and be at the cognitive level of students. The advantages of the development of flash card media have met these principles, including presenting images of traditional clothing,

traditional houses, traditional dances, and typical foods that represent various regions proportionally and educationally.

Teacher Assessment of the Practicality of Developing Interactive Flash Card Media in Cultural Diversity Learning in Grade IV at SD Negeri 1 Trirenggo Bantul

The results of the teacher's assessment of the practicality of the media showed that it was very suitable for use in learning about cultural diversity. This shows that this medium is easy to use in delivering material. This teacher's assessment is also consistent with the findings of the research by Merdekawaty & Suryani (2024) which shows that learning media that are developed interactively and based on visuals tend to be more practical and preferred by elementary school teachers, because they can be directly applied in teaching and learning activities without having to change many learning strategies that are commonly used. Thus, it can be concluded that based on the teacher's assessment, the interactive flash card media is stated to be very practical and suitable for use in learning cultural diversity. This makes this media the right solution to improve the quality of social studies learning efficiently and attractively.

Level of Student Satisfaction Towards Interactive Flash Card Media in Cultural Diversity Learning in Grade IV at SD Negeri 1 Trirenggo Bantul

The level of student satisfaction with flash card media shows very satisfying results. This means that the development of this media can improve student responses in learning about cultural diversity. This supports the view of Prastowo (2022), who states that fun and visually appealing learning media will have a direct impact on student satisfaction and involvement in the learning process. According to Ningsih & Lestari (2021), the level of student learning satisfaction is not only determined by the final learning outcomes, but also by a fun, participatory, and meaningful learning experience.

This study also strengthens previous findings by Tabina et al. (2024), who found that interactive media adapted to the characteristics and interests of elementary school students can increase satisfaction, interest in learning, and conceptual understanding simultaneously. Based on this, the high level of student satisfaction with the use of flash card media shows that this media is not only feasible in terms of content and practical in application, but also effective in increasing student involvement and response in learning about cultural diversity. This media successfully creates an active, fun, and meaningful learning atmosphere.

Conclusion

Based on the results of the research and development that have been carried out, it can be concluded that the interactive flash card learning media designed for grade IV students of SD Negeri 1 Trirenggo Bantul is a digital media innovation that is arranged visually and interactively. This media was developed using the Canva platform, with a presentation structure consisting of three main parts: the beginning, the core, and the end. In the beginning, there is a media cover, a description of the purpose, and instructions for use that are designed to facilitate teacher and student understanding. The core section contains material about the diversity of Indonesian culture, such as traditional houses, traditional clothing, and traditional musical instruments from various regions, which are enriched with interesting illustrations, explanatory video links embedded in certain texts, and interactive quizzes to evaluate student understanding. Meanwhile, the final section displays the author's profile as a form of complement and identity of the media compiler.

This media is declared very feasible to be used in learning based on the validation results from material experts and media experts, with a feasibility percentage of 95% and 92% respectively. The assessment includes aspects of material content, display design, ease of use, and suitability of the media to the characteristics of elementary school students. In addition, the results of the teacher's assessment of the practicality of the media showed a score of 82%, which reflects that this media is easy to apply in learning and is able to support the delivery of material effectively. Meanwhile, the level of student satisfaction reached an average score of 86%, indicating that this medium is very popular and encourages active participation and student

understanding of cultural diversity material. Thus, this interactive flash card media is proven to be feasible, practical, and effective to be used as an alternative to support social studies learning in grade IV, especially in the material on Indonesian cultural diversity.

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