

Development Of Interactive Card-Based Pop-Up Media With A Noble Moral Theme To Increase Student Learning Interest

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Article history

Received January 30, 2026
Revised February 27, 2026
Accepted March 16, 2026

Keywords: Pop-up Media,
Interactive Cards, Morality,
Interest in Learning.

ABSTRACT

This study aims to develop interactive card-based pop-up media with the theme of Exemplary Morals (honesty) to increase the learning interest of second-grade students at SD Negeri Kutogiri. This research is driven by the low level of student interest in learning, which is only 56%, as well as the difficulties students experience in understanding abstract moral concepts thru conventional teaching media. This study uses the ADDIE development model with a Mixed Methods approach. The participants included two expert validators, one Islamic Religious Education teacher, and 22 students. Data were collected thru validation instruments, response questionnaires, and a One-Group Pretest-Posttest design, then analyzed using paired t-tests and N-gain scores. The results show that the developed media is categorized as very feasible (91.96%) and very practical (93.75%). The application of the media significantly increased students' learning interest ($p < 0.001$), with the average score rising from 66.77 to 79.77 and an N-gain of 0.40 (moderate category). The interactive simulation feature successfully crystallized the value of honesty, enhancing student attention and their active engagement in the learning process..

I. INTROUCTION

This research is motivated by the low interest in learning among second-grade students at SD Negeri Kutogiri in the subject of Islamic Religious Education (PAI), particularly in the material of Noble Morals (the value of honesty). The results of the pre-research show that the students' interest in learning only reaches 56% with an attention level of 40%, which falls into the quite low category. This condition is marked by a lack of enthusiasm, passive participation, and students quickly losing focus during the learning process. The problem is caused by the use of conventional learning media that is not suitable for the cognitive development characteristics of second-grade students who are at the concrete operational stage (Piaget). Abstract moral material is difficult to understand if it is only delivered thru lecture methods and two-dimensional textbooks. As a solution, this research develops pop-up media based on interactive cards themed on Noble Morals (honesty). This media is designed not only as a visual aid but also as a behavioral simulation instrument thru sliding mechanisms, pull tab features, and a serialized storyline that allows students to engage actively both visually and kinesthetically. The objectives of this research are: 1. To develop interactive card-based pop-up media themed around Noble Morals. 2. To test the validity and practicality of the media. 3. To measure the effectiveness of the media in increasing students' interest in learning.

Learning interest is one of the key factors that significantly influences the success of the learning process. Students who have a high level of learning interest tend to participate more actively in classroom activities, demonstrate greater enthusiasm in understanding the material, and become more involved in various learning tasks. Conversely, a lack of learning interest often leads to students becoming passive, less focused during lessons, and less motivated to engage with the learning material. This situation highlights the importance of creating innovative and engaging learning environments that can stimulate students' curiosity and active participation. One of the strategies that can be implemented to increase students' learning interest is the use of creative and interactive learning media. Visual and concrete learning media are particularly

effective for elementary school students because they correspond to their developmental characteristics. In this context, pop-up media can serve as an attractive instructional tool since it presents three-dimensional visual elements that appear when the material is opened or interacted with. Such features can stimulate students' curiosity and make the learning process more enjoyable and engaging. At the same time, learning in elementary schools also carries the responsibility of instilling moral values from an early age. Values such as honesty, responsibility, cooperation, discipline, and respect are essential components in shaping students' character. Therefore, classroom learning should not only focus on delivering academic content but also integrate moral values that students can understand and apply in their everyday lives.

Based on preliminary observations conducted at SD Negeri Kutogiri, Kulon Progo Regency, the learning process is still largely dominated by conventional teaching methods, with textbooks serving as the primary learning resource. The use of innovative and interactive learning media remains limited, resulting in less varied classroom activities. As a consequence, students' engagement during the learning process is not yet optimal, which may also affect their overall interest in learning. Considering these conditions, there is a need to develop learning media that are not only visually appealing but also capable of supporting a more active and meaningful learning experience. One potential innovation is the development of interactive card-based pop-up media combined with a noble moral theme. This media is designed in the form of interactive cards equipped with three-dimensional pop-up elements that attract students' attention. In addition to increasing students' learning interest, the media also incorporates moral messages that help students understand character values in a simple and contextual manner. The novelty of this research lies in the development of interactive card-based pop-up learning media that integrates three-dimensional visual elements, interactive learning activities, and noble moral values within a single instructional medium. Previous studies generally focused on the use of pop-up media primarily as visual aids to improve students' comprehension or motivation in learning. In contrast, this study proposes a more integrative approach by systematically embedding **noble moral values** into the design of the learning media. Therefore, the developed media is expected not only to enhance students' learning interest but also to contribute to the strengthening of character education in elementary schools.

II. METHODS

This research uses the Research and Development (R&D) method with the ADDIE model, which includes five stages: Analysis, Design, Development, Implementation, and Evaluation. The approach used is Mixed Methods, which is a combination of qualitative and quantitative data.



Figure 1. ADDIE Model

Research Subjects: 2 expert validators (content expert and media expert), 1 PAI teacher, 22 second-grade students from SD Negeri Kutogiri (saturated/census sample) Data Collection Techniques: Expert validation sheets, Learning interest questionnaire (pre-test and post-test), Teacher response questionnaire (practicality), Student activity observation Effectiveness Test Design, using One-Group Pretest-Posttest Design. Data analysis is conducted with: Validity and practicality percentages, Normality test, Paired Sample t-Test, N-Gain Score calculation to measure the level of improvement in learning interest.

III. RESULTS AND DISCUSSION

The research results show that the interactive card-based pop-up media is declared, validation score from subject matter and media experts reached 91.96% • Included in the Very Feasible category Validators assess that the media is in accordance with the curriculum, student characteristics, and has an attractive and interactive visual design.

Table 1. Results of Expert Material Validation

No	Aspect Being Assessed	Max Score	Score Obtained	Percentage
1	Material Relevance	50	46	92%
2	Concept Accuracy	40	37	92,5%
3	Material Presentation	45	41	91,1%
4	Value Integration	25	23	92%
	Total	160	147	91,96%
	Category			Very Worthy

Based on the results of the expert material assessment, the developed learning media shows a very high level of feasibility. The evaluation covered four main aspects: material relevance, concept accuracy, material presentation, and value integration. The overall score obtained was 147 out of a maximum score of 160, resulting in a percentage of 91.96%, which falls into the “Very Worthy” category. In the aspect of material relevance, the media obtained a score of 46 (92%), indicating that the content presented is highly aligned with the learning objectives and appropriate for students’ needs. For concept accuracy, the media achieved a score of 37 (92.5%), showing that the concepts included in the material are accurate and consistent with established academic principles. Meanwhile, the material presentation aspect received a score of 41 (91.1%), suggesting that the material is organized clearly, systematically, and in a way that is easy for students to understand. In addition, the value integration aspect obtained a score of 23 (92%), which demonstrates that moral values are well integrated into the learning media.

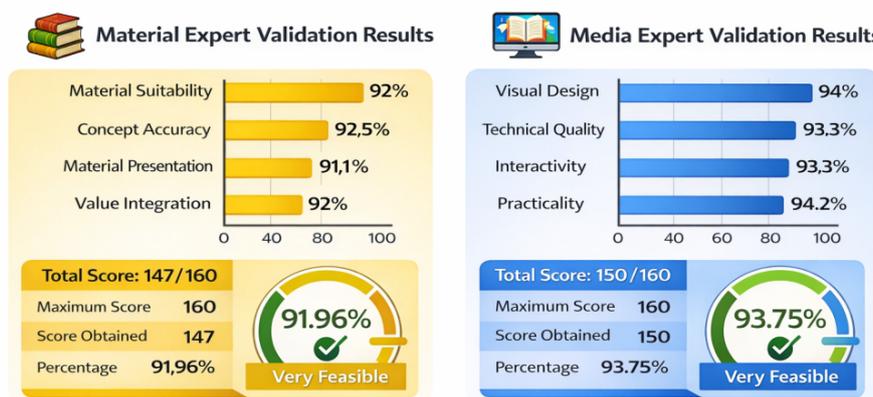


Diagram 1. Expert Validation

Teacher practicality score reaches 93.75%, The media is easy to use, does not require digital devices, and is suitable for classroom conditions

Table 2. Results of Media Practicality by Teachers

No	Aspect Being Assessed	Max Score	Score Obtained	Percentage
1	Ease of Use	20	19	95%
2	Clarity of Instructions	20	19	95%
3	Time Efficiency	20	18	90%
4	Relevance to Material	20	19	95%
5	Media Appeal	20	19	95%
	Total	100	94	93,75%
	Category			Very Practical

The practicality assessment results show that the developed learning media is highly practical for use in the classroom. Based on the table, the media obtained a total score of 94 out of a maximum score of 100, with a percentage of 93.75%, which falls into the “Very Practical” category. This result indicates that the media can be easily implemented during the learning process without significant difficulties. In the aspect of ease of use, the media scored 19 (95%), suggesting that both teachers and students can use the media without requiring complex procedures. Similarly, the clarity of instructions aspect also received 19 points (95%), indicating that the instructions provided in the media are clear and easy to follow. The time efficiency aspect obtained 18 points (90%), which shows that the media can support learning activities within the available class time, although minor adjustments may still be needed for optimal use. Meanwhile, the aspects of relevance to material and media appeal each received 19 points (95%), reflecting that the media is closely aligned with the learning material and visually attractive for students.

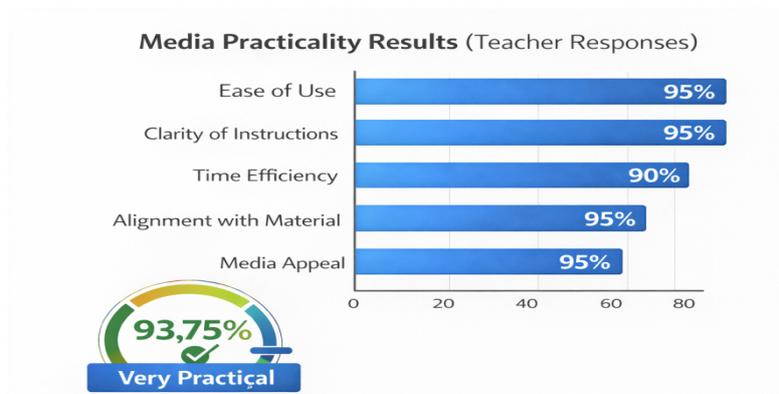


Diagram 2. Results of Media Practicality

The figure illustrates the results of the media practicality assessment based on teacher responses. Overall, the developed learning media achieved a score of 93.75%, which places it in the “Very Practical” category. This indicates that the media is considered highly suitable and easy to implement in the classroom learning process. In terms of ease of use, the media received 95%, suggesting that teachers can operate and apply the media without difficulty during instructional activities. Similarly, the clarity of instructions aspect also obtained 95%, indicating that the guidelines for using the media are clear and easy to understand. The time efficiency aspect received 90%, showing that the media can be effectively used within the allocated learning time, although slight adjustments may still be needed to maximize classroom use. Meanwhile, the aspects of alignment with material and media appeal both scored 95%, demonstrating that the media is well matched with the learning content and visually attractive for students. Effective in Increasing Learning

Interest, a verage pre-test score: 66.77, Average post-test score: 79.77, T-test result: $t = -88.362$; $p < 0.001$, N-Gain Score: 0.40 (moderate category).

Table 3. Summary Statistics

Description	Value
Number of Students	22
Average Pre-test	66,77
Average Post-test	79,77
Average Improvement	13
N-Gain	0,40 (Medium)
Sig. (p-value)	< 0,001
Category	Significant

The table shows the effectiveness of the developed learning media in improving students' learning outcomes. The study involved 22 students, with the results indicating a clear improvement between the pre-test and post-test scores. The average pre-test score was **66.77**, while the average post-test score increased to **79.77**, resulting in an average improvement of 13 points. This increase suggests that students demonstrated better understanding of the learning material after using the interactive card-based pop-up media. Furthermore, the N-Gain score of 0.40, which falls into the medium category, indicates a moderate level of learning improvement. Statistical analysis also shows a significance value (p-value) of < 0.001 , which confirms that the improvement in students' learning outcomes is statistically significant. These findings suggest that the use of the interactive card-based pop-up media with a noble moral theme has a positive and meaningful impact on students' learning performance, making it an effective instructional tool for supporting the learning process in elementary school classrooms.

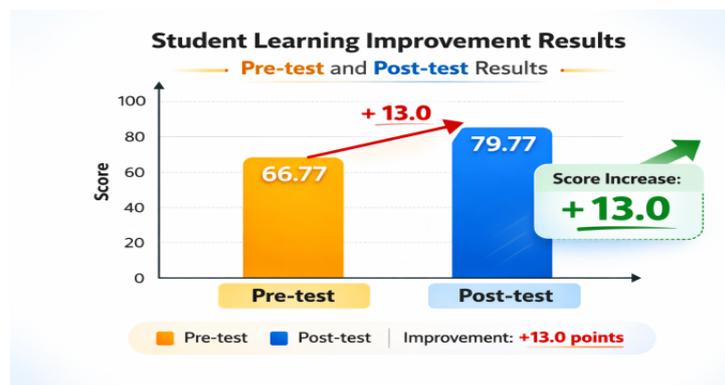


Diagram 3. Hail Pretest and Posttest

These results show a statistically significant increase in students' learning interest after the use of the media. Discussion The interactive card-based pop-up media has proven capable of:

- Enhancing students' attention thru 3D visual effects
- Increasing active engagement thru physical manipulation (pull, slide, open)
- Concretizing moral dilemmas into real learning experiences

These findings support Slameto's theory of learning interest, which states that interest arises thru enjoyment, attention, and active engagement. Moreover, the research findings are also in line with

Piaget's theory, which states that students in the concrete operational stage need tangible media to understand abstract concepts.

III. CONCLUSION

This research successfully developed an interactive card-based pop-up media themed on Noble Morals (honesty) that: 1. Is valid and highly suitable for use in PAI learning. 2. Is practical and easy for teachers to implement. 3. Effectively significantly increases students' interest in learning. This media is capable of bridging the gap between abstract moral material and the learning needs of students at the concrete operational stage thru three-dimensional visualization and physical interactivity. Thus, the interactive card-based pop-up media can become an innovative PAI learning tool that supports the implementation of the Merdeka Curriculum, particularly in strengthening character and the Noble Character dimension in the Pancasila Student Profile.

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