

## Development of *SI-INTAN* Pancasila Learning Media Based on Kotawaringin Barat Local Wisdom

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### Article Information

### ABSTRACT

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*Aim:* This study aimed to develop and evaluate *SI-INTAN* Pancasila, an interactive learning media integrating the local wisdom of Kotawaringin Barat into Pancasila Education for Phase B elementary school students. *Method:* The study employed a Research and Development (R&D) approach using the ASSURE model, involving 24 students of SDN 1 Sungai Rangit Jaya. Data were collected through expert validation, teacher and student response questionnaires, observations, and pretest–posttest assessments. *Result and Discussions:* The feasibility results showed that the media obtained validation scores of 80% from material experts, 100% from language experts, and 83% from media experts, indicating that the product was highly feasible for classroom use. Practicality data revealed positive responses from both teachers and students, who considered the media engaging and easy to use. The effectiveness of the media was demonstrated by an increase in students' average learning outcomes from 66.67 on the pretest to 80.00 on the posttest. *Conclusion:* These findings indicate that *SI-INTAN* Pancasila is a feasible, practical, and effective learning medium for supporting Pancasila Education while promoting local wisdom values among elementary school students.

**Keywords:** Interactive Learning Media, Pancasila Education, Local Wisdom, ASSURE, Elementary School



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## INTRODUCTION

Education plays a vital role in developing students' knowledge, skills, and character. At the elementary school level, learning is expected not only to facilitate cognitive development but also to instill values and attitudes that support students' personal and social growth. One of the subjects that contributes significantly to character formation is Pancasila Education, which aims to develop students' understanding and practice of Pancasila values in their daily lives.

However, the implementation of Pancasila Education in elementary schools still faces several challenges. Learning activities are often dominated by teacher-centered approaches and textbook-based instruction, resulting in limited student engagement and participation. Such conditions may reduce students' interest in learning and hinder their understanding of abstract concepts related to Pancasila values. Therefore, innovative learning approaches are needed to create more meaningful and engaging learning experiences.

The use of interactive learning media has been widely recognized as an effective strategy for improving learning quality. According to multimedia learning theory, students learn more effectively when information is presented through a combination of visual, audio, and interactive elements. Interactive media can enhance students' motivation, attention, and understanding by providing learning experiences that

actively involve them in the learning process. In addition, constructivist learning theory emphasizes that students construct knowledge more effectively when learning activities are connected to their real-life experiences and social environments.

In this context, integrating local wisdom into learning can provide meaningful and contextual learning experiences. Local wisdom contains cultural values, traditions, and social practices that are closely related to students' daily lives. As a result, learning materials become more relevant and easier for students to understand. In Kotawaringin Barat Regency, various cultural traditions such as Pantun Seloka, Pawai Nasi Adab, Bebersih Banua, and Sembaga Mas reflect values of cooperation, mutual respect, responsibility, and social harmony that are aligned with the principles of Pancasila. These cultural resources have the potential to be utilized as contextual learning materials in Pancasila Education.

Previous studies have demonstrated that interactive learning media can improve student engagement and learning outcomes. Likewise, local wisdom-based learning has been shown to strengthen cultural literacy, character development, and learning relevance. Despite these findings, studies focusing on the development of interactive learning media for Pancasila Education that specifically integrate the local wisdom of Kotawaringin Barat remain limited. Most existing studies examine either interactive media or local wisdom separately,

while research combining both aspects in Pancasila Education at the elementary school level is still scarce.

This research addresses that gap by developing *SI-INTAN* Pancasila (Interactive Innovation Facility for Instilling Pancasila Values), an interactive learning medium that integrates local wisdom from Kotawaringin Barat into Pancasila Education learning. The media is designed to provide contextual, engaging, and culturally relevant learning experiences for Phase B elementary school students. Therefore, this study aims to develop *SI-INTAN* Pancasila learning media based on the local wisdom of Kotawaringin Barat and to evaluate its feasibility, practicality, and effectiveness in supporting Pancasila Education learning at the elementary school level.

## METHOD

This study employed a Research and Development (R&D) approach to develop and evaluate the *SI-INTAN* Pancasila learning media based on the local wisdom of Kotawaringin Barat. The development process adopted the ASSURE instructional design model, which consists of six stages: Analyze Learners, State Objectives, Select Methods, Media, and Materials, Utilize Media and Materials, Require Learner Participation, and Evaluate and Revise. The ASSURE model was selected because it provides a systematic framework for designing instructional media that aligns learning objectives, student characteristics, instructional strategies, and evaluation procedures.

The research was conducted at SDN 1 Sungai Rangit Jaya, Kotawaringin Barat Regency, Central Kalimantan. The participants consisted of 24 Phase B students who were involved in the implementation and evaluation of the developed learning media. In addition, one material expert, one language expert, and one media expert participated in the product validation process.

The development procedure began with the Analyze Learners stage, which involved classroom observations and interviews with teachers to identify students' characteristics, learning needs, and challenges in Pancasila Education learning. The findings indicated that students showed greater interest in visual and interactive learning activities and required more contextual learning materials connected to their local cultural environment.

In the State Objectives stage, learning objectives were formulated based on the Learning Outcomes (Capaian Pembelajaran) of Pancasila Education for Phase B students. The objectives focused on strengthening students' understanding and application of Pancasila values through local wisdom-based learning experiences.

During the Select Methods, Media, and Materials stage, contextual learning strategies were selected, and the content of the *SI-INTAN* Pancasila media was designed by integrating local cultural traditions of Kotawaringin Barat, including Pantun Seloka, Pawai Nasi Adab, Bebersih Banua, and Sembaga Mas.

The media was developed in the form of interactive digital learning content containing instructional materials, visual illustrations, learning activities, and evaluation exercises.

The Utilize Media and Materials stage involved implementing the developed media in classroom learning activities. Subsequently, in the Require Learner Participation stage, students actively engaged in discussions, reflection activities, interactive tasks, and learning evaluations facilitated by the *SI-INTAN* Pancasila media.

The final stage, Evaluate and Revise, consisted of product validation and field testing. Expert validation was conducted to assess the feasibility of the learning media in terms of content, language, and media design. Suggestions provided by the validators were used to revise and improve the product before implementation.

Data were collected through expert validation sheets, teacher and student response questionnaires, classroom observation sheets, and pretest-posttest assessments. Expert validation sheets were used to evaluate the feasibility of the media, while teacher and student questionnaires were used to assess its practicality. The effectiveness of the media was measured through students' learning outcomes before and after the implementation of the developed product.

Data analysis was conducted using descriptive quantitative techniques. The feasibility and practicality scores were calculated as percentages using the formula:

$$\text{Percentage} = (\text{Obtained Score} / \text{Maximum Score}) \times 100$$

The resulting percentages were interpreted according to predetermined feasibility criteria. The effectiveness of the *SI-INTAN* Pancasila media was determined by comparing students' average pretest and posttest scores. An increase in posttest scores indicated that the developed learning media effectively supported students' understanding of Pancasila values and local wisdom-based learning content.

## RESULTS AND DISCUSSION

### Development of the *SI-INTAN* Pancasila Learning Media

The development of the *SI-INTAN* Pancasila learning media was carried out based on the stages of the ASSURE model. During the Analyze Learners stage, observations and interviews were conducted to identify the characteristics and learning needs of the students. The analysis revealed that students showed greater interest in visual learning media and learning activities that involved direct participation.

The next stage involved determining the learning objectives in accordance with the learning outcomes of Pancasila Education for Phase B students. Subsequently, active learning methods integrated with a contextual approach were selected to enable students to relate the learning materials to their daily lives.

The *SI-INTAN* Pancasila learning media was developed in the form of an interactive video containing materials on Pancasila values, illustrations of local culture, learning activities,

and simple evaluation exercises. The incorporation of local cultural elements, such as Pantun Seloka and the Pawai Nasi Adab tradition, was intended to facilitate students' understanding of Pancasila values through examples that are closely related to their social and cultural environment. To determine the feasibility of the developed learning media, validation was conducted by subject matter experts, language experts, and media experts.

### Subject Matter Expert Validation

The validation results from the subject matter expert yielded a score of 48 out of a maximum score of 60, resulting in a feasibility percentage of 80%, which falls within the feasible category. The expert assessment indicated that the content was aligned with the intended learning outcomes and was relevant to the local cultural values of Kotawaringin Barat. Furthermore, the material was considered appropriate for elementary school students and capable of supporting the achievement of learning objectives in Pancasila Education.

**Table I.** Material expert table result

No	Assessment Aspects	Score
1	Alignment of Material with Phase B Learning Elements and Outcomes (CP)	4
2	Accuracy of Pancasila Value Concepts	4
3	Suitability of Media and Learning Materials	4
4	Material is presented sequentially and neatly	4
5	Material is easy to understand	4
6	Suitability of Images and Illustrations	4
7	Use of images and illustrations appropriate to students' developmental level	4
8	Relevance of Material to the local wisdom of West Kotawaringin	4
9	Clarity of concrete examples of culture in the West Kotawaringin environment	4
10	Material is able to instill the character values ( <i>SI-INTAN</i> ) of PANCASILA	4
11	Systematic material presentation sequence	4
12	Suitability of evaluation/questions to learning objectives	4
Total		48

### Subject Matter Expert Validation

The validation conducted by the subject matter expert resulted in a total score of 48 out of a maximum score of 60. The feasibility percentage was calculated as follows:  
 $\text{Feasibility Percentage} = (48/60) \times 100 = 80\%$   
 Based on the established assessment criteria, the developed learning media was categorized as feasible. The expert evaluation indicated that the content was aligned with the learning outcomes of Pancasila Education and was relevant to the local cultural values of Kotawaringin Barat. Furthermore, the material was considered appropriate for elementary school

students and capable of supporting the achievement of the intended learning objectives.

### Language Expert Validation

The language expert validation yielded a feasibility percentage of 100%, which falls within the highly feasible category. The expert assessment showed that the language used in the *SI-INTAN* Pancasila learning media was simple, communicative, and appropriate for the cognitive development of elementary school students. In addition, the language was considered clear, easy to understand, and effective in facilitating students' comprehension of the learning materials.

**Table II.** Linguist Table Results

No	Assessment Aspects	Score
1	Use of EYD	5
2	Sentences are free from ambiguous meanings	5
3	Accurate sentence structure	5
4	Language is easily understood by students	5
5	Language is appropriate to students' emotional levels	5
6	Use of standard terms	5
7	Choice of simple terms	5
8	Learning messages are clear	5
9	Sentence structure is correct	5
Total		45

### Language Expert Validation

The language expert validation resulted in a total score of 45 out of a maximum score of 45. The feasibility percentage was calculated as follows:  
 $\text{Feasibility Percentage} = (45/45) \times 100 = 100\%$

Based on the established assessment criteria, the learning media was categorized as highly feasible. The language expert concluded that the language used in the *SI-INTAN* Pancasila learning media was clear, communicative, and appropriate for elementary school students. Furthermore, the wording, sentence structure, and instructions provided in the media

were considered easy to understand, thereby supporting students' comprehension of the learning materials.

### Media Expert Validation

The media expert validation yielded a feasibility percentage of 83%, which falls within the highly feasible category. The expert evaluation indicated that the *SI-INTAN* Pancasila learning media possessed an attractive visual design, was easy to operate, and was well suited to the characteristics

and learning needs of elementary school students. In addition, the integration of interactive elements and local cultural content was considered effective in enhancing students' engagement during the learning process. Based on the results of the subject matter, language, and media expert validations, the *SI-INTAN* Pancasila learning media was declared feasible for implementation in Pancasila Education learning at the elementary school level.

**Table III.** Media Expert Table Results

No	Assessment Aspects	Score
1	Instructions for using the media are available.	5
2	Instructions for using the media are easy to understand.	4
3	Symbols and buttons in the media are easy to use.	4
4	The design or images are appropriate to the material discussed in the media.	4
5	The layout of the media is attractive.	5
6	The color selection is harmonious and does not interfere with the text.	5
7	The balance between images and fonts is appropriate.	4
8	The image arrangement is appropriate, neither too large nor too small.	4
9	The image quality/illustrations of local wisdom are clear.	4
10	The sound in the learning video is very clear.	4
11	The animated videos in the media are clearly visible.	4
12	The animations in the videos are very engaging.	4
13	The consistency in the use of terminology in the media is appropriate.	4
14	The message conveyed is clear and focused, in accordance with the character values ( <i>SI-INTAN</i> ) of PANCASILA.	4
15	The font size on the media is clearly legible.	4
16	The use of learning media is easy to use to support the learning process.	4
17	Learning media can be used independently without special guidance from the teacher.	4
18	Learning media can minimize misunderstandings among students.	4
19	Media is effective as a tool to help instill Pancasila values in local wisdom.	4
20	Media stability (no errors).	4
Total		

### Media Expert Validation

Based on the questionnaire completed by the media expert validator, the following results were obtained:

Highly Appropriate: 3 items

Appropriate: 17 items

Moderately Appropriate: 0 items

Less Appropriate: 0 items

Not Appropriate: 0 items

The score was calculated using the following formula:

Obtained Score = (Number of Highly Appropriate responses × 5) + (Number of Appropriate responses × 4)

Thus:

Obtained Score = (3 × 5) + (17 × 4)

= 15 + 68

= 83

The maximum possible score was:

Maximum Score = 20 × 5 = 100

The media feasibility percentage was calculated using the following formula:

$$\text{Percentage} = \frac{\text{Score obtained}}{\text{Score max}} \times 100\%$$

$$\text{Percentage} = \frac{83}{100} \times 100 = 83\%$$

Based on these calculations, the feasibility percentage of the *SI-INTAN* Pancasila learning media was 83%. This result indicates

that the developed learning media falls into the highly feasible category and is appropriate for use in the teaching and learning process.

### Practicality of the Learning Media

The results of the teacher and student response questionnaires indicated that the *SI-INTAN* Pancasila learning media was easy to use in classroom instruction. Teachers reported that the learning process became more engaging and that students demonstrated greater enthusiasm compared to previous learning activities. Students also provided positive responses toward the media, stating that its attractive visual appearance and the incorporation of local cultural illustrations made learning more enjoyable and meaningful. These findings suggest that the *SI-INTAN* Pancasila learning media possesses a high level of practicality and can be effectively implemented in elementary school classrooms.

### Effectiveness of the Learning Media

The effectiveness of the learning media was evaluated through students' pre-test and post-test scores. The average pre-test score was 66.67, which increased to 80.00 in the post-test, resulting in an improvement of 13.33 points after the implementation of the *SI-INTAN* Pancasila learning media.

The improvement in learning outcomes indicates that the media was effective in helping students better understand the instructional content. The integration of visual elements

and local cultural contexts transformed previously abstract concepts into more concrete and meaningful learning experiences. Consequently, students were able to comprehend the material more easily.

In addition to improving learning outcomes, the use of the *SI-INTAN* Pancasila learning media also increased student participation during the learning process. Students actively

engaged in group discussions, simulations, question-and-answer sessions, and reflective learning activities. These findings demonstrate that the media not only enhanced students' academic achievement but also promoted active participation and engagement throughout the learning process. Based on the collected data, the distribution of students' pre-test scores is presented in the following table.

**Table IV.** Pre-test Results

Score	Number Of Students
90	4 students
80	6 students
70	6 students
60	1 students
50	3 students
40	2 students
30	1 students
20	1 students

Number of students: 24

Average pretest score:

$$\frac{(90 \times 4) + (80 \times 6) + (70 \times 6) + (60 \times 1) + (50 \times 3) + (40 \times 2) + (30 \times 1) + (20 \times 1)}{24} = \frac{1600}{24} =$$

**66,67**

Pretest Conclusion:

The average score of 66.67 indicates that students' initial understanding is still adequate and not optimal. The distribution of posttest scores is as follows:

**Table V.** Posttest Results

Score	Jumlah Siswa
100	2 students
90	5 students
80	9 students
70	7 students
60	1 students

Number of students: 24

Average posttest score :

$$\frac{(100 \times 2) + (90 \times 5) + (80 \times 9) + (70 \times 7) + (60 \times 1)}{24} = \frac{1920}{24} = \mathbf{80}$$

Posttest Conclusion:

The average score increased to 80, indicating improved student understanding after using the media. The effectiveness of the learning media in this study was measured by improving student learning outcomes, as measured by comparing pretest and posttest scores. Based on data analysis, the average pretest and posttest scores were 66.67, while the average posttest score was 80. This indicates a 13.33 point increase after using the *SI-INTAN* Pancasila media in learning. The improvement in students' learning outcomes indicates that the *SI-INTAN* Pancasila media did not merely increase test scores but also facilitated meaningful learning experiences. According to the ASSURE instructional design model, instructional media become more effective when they are designed based on learners' characteristics and actively engage students throughout the learning process. The interactive activities, visual representations, and integration of local wisdom enabled students to connect abstract Pancasila concepts with real-life

cultural experiences, resulting in deeper conceptual understanding rather than rote memorization. These results align with research by Saputra and Gunawan (2021), which states that the use of digital learning media can increase learning effectiveness and make students more active during the learning process.

This finding indicates that the effectiveness of *SI-INTAN* Pancasila is not solely attributed to its digital format but also to its instructional design. The media was developed following the ASSURE model, which emphasizes learner analysis, appropriate media selection, and active student participation. These components enabled students to interact with the learning materials more meaningfully, resulting in higher engagement and improved learning outcomes. Therefore, the present study provides further evidence that well-designed digital learning media can promote both active participation and conceptual understanding in elementary education. Research by Novialdi et al. (2020) also explains that digital-based interactive learning media can help students understand learning concepts more easily because the material is presented visually and engagingly. The findings of the present study extend those reported by Novialdi et al. (2020). While previous studies primarily emphasized the role of visual and interactive media, the *SI-INTAN* Pancasila media integrates local cultural contexts into the learning materials. This contextual

approach enabled students to associate abstract Pancasila values with familiar experiences from their daily lives, thereby facilitating deeper conceptual understanding and making learning more relevant and meaningful. The integration of local culture into the learning media in this study also had a positive impact on student understanding. This is consistent with research by Sumarni et al. (2024) stated that local culture-based learning can help students connect material to everyday life, making learning more meaningful. Research by Anengsih et al. (2024) also showed that using local cultural elements in learning can improve cultural literacy and strengthen students' character.

The present findings reinforce these previous studies by demonstrating that the integration of local wisdom contributes not only to cultural literacy and character development but also to measurable improvements in students' academic achievement. This suggests that local wisdom serves as both meaningful learning content and an effective pedagogical strategy for enhancing student engagement and understanding. Consequently, incorporating local cultural values into digital learning media offers a comprehensive approach that supports cognitive, affective, and cultural learning outcomes simultaneously. Compared with previous studies, the main contribution of this research lies in the combination of an interactive digital learning medium with the cultural values of Kotawaringin Barat. This integration demonstrates that local wisdom can function not only as contextual learning content but also as an instructional strategy that enhances students' understanding of Pancasila values.

Therefore, this study expands existing evidence regarding the educational benefits of culturally responsive digital learning media in elementary schools. Therefore, the results of this study reinforce previous research findings that the use of interactive learning media based on local wisdom can improve learning outcomes, student engagement, and create more contextual and enjoyable learning. These findings have important implications for elementary school teachers. The integration of local wisdom into digital learning media provides an effective strategy for implementing contextual learning while preserving regional cultural values. The developed *SI-INTAN* Pancasila media can support teachers in creating student-centered learning environments, improving students' conceptual understanding, and strengthening character education aligned with the objectives of Pancasila Education.

## CONCLUSION

This study successfully developed *SI-INTAN* Pancasila, an interactive learning medium based on the local wisdom of Kotawaringin Barat, using the ASSURE development model. The findings indicate that the developed media is feasible, practical, and effective for supporting Pancasila Education learning among Phase B elementary school students. The integration of local cultural values into the learning process

helped students understand Pancasila values in a more contextual and meaningful manner while increasing their engagement and participation in classroom activities.

The results suggest that *SI-INTAN* Pancasila can serve as an alternative learning medium for teachers seeking to implement interactive and culturally responsive instruction. In addition to improving learning outcomes, the media contributes to the preservation and promotion of local wisdom by incorporating cultural traditions that are relevant to students' daily lives. Therefore, the use of local wisdom-based learning media has the potential to strengthen both character education and cultural literacy in elementary schools. Future research is recommended to involve larger and more diverse samples, implement the media in different educational settings, and examine its long-term impact on students' character development and understanding of Pancasila values. Further studies may also explore the integration of other forms of local wisdom and digital learning technologies to enhance the effectiveness and scalability of Pancasila Education learning.

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