

Development of Bikipasi (Bianglala kisah panggung sinaran) as a learning medium sunday school Buddha Dharma Santi East Lampung

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Abstract: This study focuses on the development and feasibility testing of BIKIPASI (Bianglala Kisah Panggung Sinaran) as a non-digital educational medium designed to overcome the limitations of attractive learning media at the Dharma Santi Buddhist Sunday School, East Lampung. Using a Research and Development (R&D) approach based on the modified Borg and Gall model, this study followed seven systematic stages to ensure a focused product design and evaluation process. The research subjects were Majjhima Sekha level students, with data collection methods including observation, interviews, expert validation questionnaires, and pretest and posttest tests. These instruments were used to measure the effect of using BIKIPASI on students' understanding of character building themes, particularly the values of honesty and humility. This media has undergone validation by media experts and subject matter experts, obtaining feasibility scores of 98% and 82%, respectively, indicating that BIKIPASI is highly suitable for use. Statistical analysis using a paired sample t-test showed a significant increase in learning outcomes after using this media ($p\text{-value} < 0.05$). These findings confirm that BIKIPASI is capable of improving students' understanding of moral values in a non-digital learning environment. Given the limited access to digital technology in rural areas, BIKIPASI is a practical and culturally responsive alternative. In addition, the flexibility of topics that can be raised makes it an effective tool for educators in implementing active and meaningful learning. This innovation supports a more inclusive and interactive character education, especially in areas that are not yet fully accessible by digital technology.

Keywords: Development, Bikipasi, Learning Media, and Buddhist Sunday School

1. Introduction

Education in Indonesia still shows disparities, even though the government has made various efforts to improve its quality. Programs such as the equal distribution of facilities and infrastructure, the digitization of learning, and the improvement of the quality of leading schools have become the main focus. However, the reality on the ground shows that the implementation of these policies has not been fully equitable. The gap between schools in urban and rural areas remains an issue that needs more serious attention.

Previous research highlights this condition. Of the 28 elementary schools studied, only about 67% had adequate facilities and infrastructure. The rest, most of which were in rural

areas, still faced limitations in learning support facilities. This indicates that access to quality education is still not evenly distributed throughout Indonesia [1].

Educational disparities also occur in the context of religious education, especially for Buddhist students. In some areas, especially rural areas, formal Buddhist education services are not yet available in schools. For this reason, the existence of Buddhist Sunday Schools (SMB) is very important as a means of moral and spiritual education. However, the conditions of SMBs in urban and rural areas are very different. In cities, SMBs are more developed because they are supported by adequate facilities and teaching staff, while in villages they still face many obstacles.

Limited facilities, lack of access to teaching materials, and a shortage of teaching staff are the main challenges for SMB in rural areas. In addition, the socioeconomic conditions of rural communities, where most people work as farmers or laborers with varying levels of education, also affect support for religious education in these areas. This is a particular obstacle to improving the quality of learning at Buddhist Sunday Schools.

On the other hand, the development of digital technology actually offers great potential in supporting a more engaging and interactive learning process. However, in reality, not all regions have equal access to technology. Many students in rural areas do not have technological devices such as smartphones, or are not even allowed to use them by their parents. Limited infrastructure, high costs, and low digital literacy are the main obstacles to the implementation of learning technology in remote areas.

Based on observations conducted at the Dharma Santi Buddhist Sunday School, it was found that learning activities were still conventional. The teaching materials used were still limited to printed books without the support of interactive media. Supporting facilities such as projectors or teaching aids were not available, making the learning process less interesting for students. However, there was local potential in the form of gamelan musical instruments that had been used to develop children's artistic skills.

In response to these conditions, this study developed the BIKIPASI (Bianglala Kisah Panggung Sinaran) learning media as an innovative solution appropriate to the local context. This media is designed without the need for an internet connection, making it very suitable for use in rural areas. BIKIPASI can be modified according to the teaching materials needed and provides a concrete and enjoyable learning experience. In this study, the materials used are the culture of honesty and the culture of humility, which are expected to shape students' character while making learning at Buddhist Sunday School more interesting and meaningful.

The development of BIKIPASI as a learning tool at the Buddha Dharma Santi Sunday School in East Lampung aims to create effective and engaging media for students. This medium is classified as an Educational Teaching Aid (APE), which is a tool or resource that enables direct interaction between students and learning materials without relying on digital technology. This medium relies on various physical elements such as printed text, images, teaching aids, and experience-based activities to support a more in-depth learning process [2].

Previous studies have shown that the use of interactive learning media can increase students' interest and understanding in learning Buddhist teachings. In addition,

interactive learning media can also provide a more enjoyable and memorable learning experience for students [3]. This is in line with the Buddhist teachings in the Anguttara Nikāya, which states that: "Seyyathāpi, bhikkhave, sikkhāya sikkhāyo vaḍḍhanti, evameva sutam bahum bhāvetabbam, sutam bahum vaḍḍhati." This means "Just as skills develop through training, so too does knowledge develop through much hearing and practicing" (A.V.202). This emphasizes the importance of direct experience and practice in the learning process, in line with the concept of APE, which stimulates the active involvement of students.

Learning media plays an important role in increasing the effectiveness of the teaching and learning process. The use of appropriate interactive media can stimulate students' minds, feelings, attention, and interest, thereby creating a more enjoyable and meaningful learning experience [4]. The use of interactive learning media can increase students' motivation and interest in learning, as it makes it easier for teachers to create innovative and enjoyable lessons [5]. In addition, the use of teaching aids in demonstration methods has been proven effective in improving students' understanding of the subject matter. Demonstration methods aided by teaching aids can significantly improve students' understanding of the concept of Earth's rotation [6]. Thus, the integration of interactive learning media and teaching aids in the learning process can provide opportunities for students to be actively involved through methods such as educational games, group discussions, demonstrations, experiments, and real simulations, which ultimately improve the effectiveness and efficiency of learning.

Non-digital learning media play an important role in providing concrete learning experiences, especially for students who find it easier to understand concepts through hands-on activities. In the context of Buddhist education, this approach has been applied through various methods that emphasize student active involvement [7]. For example, the use of Jātaka stories in teaching at the Viriya Dhamma Buddhist Sunday School in Semarang Regency has proven effective in increasing student activity. Through the presentation of stories such as Devadhamma Jātaka, Gāmani Jātaka, and Nalapāna Jātaka, students not only listen, but also engage in discussion and reflection, which ultimately increases their active participation in the learning process [8]. Buddhist teachings also emphasize the importance of direct practice through a quote in the Majjhima Nikāya: "Nāham, bhikkhave, dhammam desemi anuppattam paṭividdham sayam abhiññā sacchikatvā." This means, "I, monks, do not teach the dhamma unless I have experienced it myself, realized it, and seen it with direct knowledge" (M.I.133). This shows that direct experience and real appreciation are highly valued in Dhamma learning, which is also a principle in the use of APE media.

Many studies have highlighted the effectiveness of game-based learning in increasing learning motivation, social interaction, and student engagement. For example, one study shows that the game-based learning model, as a 21st-century innovation, plays a significant role in increasing student learning activity [9]. In addition, game-based learning has an important role in early childhood education because it can create a fun and engaging learning environment, thereby increasing children's motivation and involvement in the learning process [10].

Furthermore, non-digital interactive media allows learners to control the pace and direction of their own learning. Through active involvement, they can explore concepts in greater depth and relate them to their daily experiences. Thus, even though digital technology is increasingly developing, non-digital interactive learning media still has an important role in education. The combination of physical activity and real-life experiences provides great benefits in improving students' understanding naturally and sustainably.

Well-designed learning media can increase student motivation and engagement, especially in environments that are less facilitated by modern technology [11]. By utilizing interactive learning methods, BIKIPASI not only conveys information but also encourages students to actively participate in the learning process. This is very important in the context of religious education, where deep understanding and direct experience can reinforce the values being taught. In addition, the development of BIKIPASI also contributes to educational equity, providing equal opportunities for all students to access quality learning materials, regardless of existing limitations. Thus, BIKIPASI not only functions as a learning aid, but also as a bridge to create an inclusive and empowering learning environment.

Educational Teaching Aids (APE) are learning media designed to make the learning process more interesting, interactive, and enjoyable. APE plays a role in supporting children's development, both cognitively, socially, and motorically, by adjusting learning methods according to their age levels [12]. In early childhood and elementary school education, the existence of APE is very important because it helps create a more dynamic and effective learning environment.

Recent research shows that APE not only functions as a tool to help understand subject matter, but also as a means of stimulating the development of various skills in children. APE is specifically designed to hone children's basic abilities, such as logical thinking, problem solving, and creativity [13]. By using the right teaching aids, children can learn more effectively through direct experiences that involve various senses.

In addition, APE also contributes to the development of children's social and emotional skills [2]. When playing with Educational Props, children learn to interact, share, and work together with their friends. This process not only makes the learning atmosphere more enjoyable, but also shapes social skills that are very useful in everyday life.

Educational teaching aids (APE) are available in various forms and levels of complexity, allowing educators to choose according to the learning objectives they want to achieve. For example, stacking blocks are useful for improving children's eye-hand coordination. The use of blocks as teaching aids can improve the cognitive abilities of early childhood, including fine motor coordination [14].

The diversity of APEs has profound significance in the process of educating children. Each type of APE is designed to develop specific skills, ranging from logical thinking and creativity to social skills. For example, puzzles encourage children to think analytically and solve problems, while role-playing toys such as miniature household appliances or professions can develop children's social skills and imagination. Other studies mention that the right variety of APE can stimulate multiple domains of

development in children, creating a holistic learning environment and comprehensively stimulating their potential [15]

Based on an analysis of several journals, Educational Teaching Aids (APE) are a very important learning medium in early childhood and elementary school education. APE is designed to create an interesting, interactive, and enjoyable learning process, with the aim of developing various aspects of children's development, including cognitive, social, and motor skills. Through various forms of teaching aids such as building blocks, puzzles, and role-playing toys, APE not only helps children understand the subject matter, but also encourages the development of basic skills such as logical thinking, problem solving, creativity, and social interaction. Recent research shows that the appropriate use of APE can stimulate multiple domains of development, creating a holistic learning environment that allows children to learn through direct experience and sensory stimulation, thereby optimizing their comprehensive developmental potential.

2. Method

This study uses a Research and Development (R&D) approach by adapting the development model from Borg and Gall. This model was chosen because it is able to systematically describe the steps in designing, developing, and evaluating a learning product. However, given the limitations of time and cost, this study was only carried out up to the seventh of ten stages in the model, namely: (1) initial research and data collection, (2) planning, (3) initial product development, (4) validation testing by experts, (5) revision of the initial product, (6) limited field testing, and (7) revision of the final product [16]. The entire research process was carried out in a gradual and systematic manner, which is visualized in Figure 1 as a graphic illustration of the methodology used. This figure provides a clear and structured explanation of the research framework, facilitating understanding of the development process.

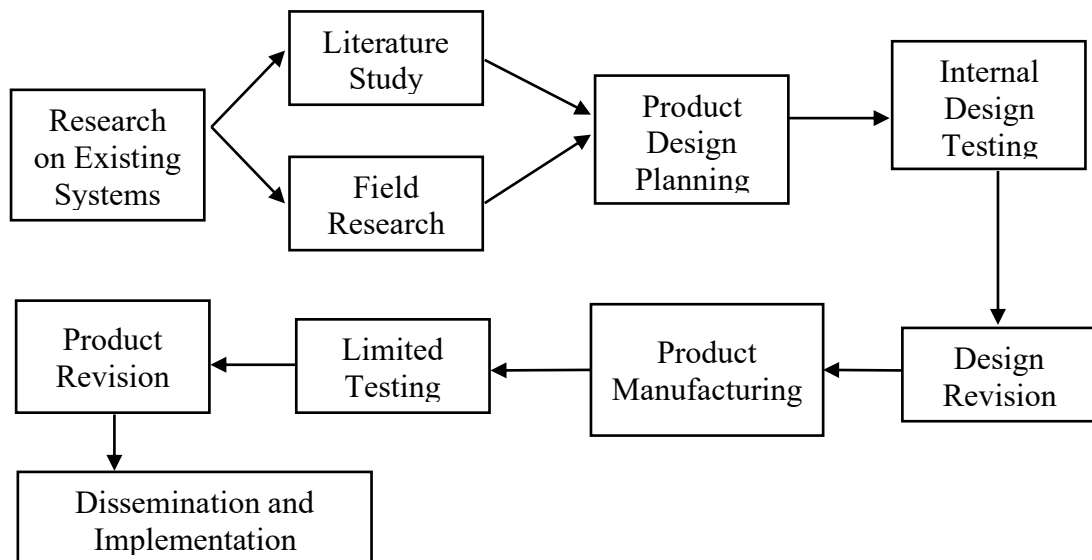


Figure 1. Steps in using the Research and Development (R&D) Method

The subjects in this study were Majjhima Sekha level students at the Buddha Dharma Santi Sunday School in East Lampung. To obtain relevant data, several data collection techniques were used, namely observation, interviews, expert validation questionnaires, and pretest and posttest tests. Observations and interviews were conducted at the initial stage to explore the problems encountered in the learning process and the need for learning media. Questionnaires were given to media experts and subject matter experts to assess the quality of the products in terms of content and appearance. Meanwhile, pre-tests and post-tests were used to determine the effectiveness of BIKIPASI learning media in improving student learning outcomes. Data analysis was performed using a paired samples test to determine the extent to which the use of BIKIPASI media influenced the improvement of student learning outcomes.

The stages in this study included a series of systematic processes, beginning with data collection using research instruments in the form of questionnaires. These instruments functioned as the main evaluation tools to assess the feasibility and quality of the learning media developed. In its preparation, the questionnaire instrument was carefully designed to accommodate assessments from various aspects, both in terms of content and media display. To obtain objective and credible data, the evaluation process involved a number of validators who were competent in their respective fields. The validators involved consisted of learning media experts who had a deep understanding of instructional design principles, Buddhist education material experts who were tasked with assessing the suitability of the content with Buddhist teachings, teachers from the Dharma Santi Buddhist Sunday School who represented the end users of the media in the field, and the researchers themselves who acted as internal evaluators to ensure alignment between the objectives and implementation of the product.

To measure the level of suitability of the developed media, a Likert scale-based data quantification method was used. This scale was chosen for its ability to systematically measure respondents' attitudes, perceptions, and evaluations of the research object. The Likert scale is a measuring tool often used in social research to convert subjective attitudes and views into numerical data that can be analyzed quantitatively [17]. In this study, the scale used consists of five levels, namely: very feasible with a score of 5, feasible with a score of 4, quite feasible with a score of 3, less feasible with a score of 2, and not feasible with a score of 1. Each score level reflects the level of suitability and quality of the media from the perspective of the validators. This assessment range allows researchers to identify in more detail which aspects have met the criteria and which areas still need improvement. Thus, the results of this measurement not only provide a basis for determining the level of media suitability but also provide clear direction in the process of revising and developing products to be more optimal and in line with the learning needs of Sunday School.

3. Results and Discussion

The development of BIKIPASI (Bianglala Kisah Panggung Sinaran) Learning Media was motivated by the need for teaching aids that are appropriate to the local context, enjoyable, and free from dependence on digital technology, especially in the process of

character learning in the environment of the Dharma Santi Lampung Timur Buddhist Sunday School. This media is designed as an Educational Teaching Aid that can create a more lively and interactive learning atmosphere for students, especially in instilling moral values such as honesty and humility. In its implementation, the development of this media followed a Research and Development (R&D) approach by adopting the seven stages of the Borg and Gall model. The seven stages included the initial process of preliminary studies, product design planning, initial product development, validation by experts, initial improvements, limited field trials, and final product revisions based on the findings of the trials.

In the initial stage, researchers conducted direct observations at the learning location and interviewed teachers and students as media users. The results of this activity showed that the learning process at the Buddha Dharma Santi Sunday School was still carried out conventionally and was not yet widely supported by innovative learning media. Learning tended to be one-way and did not involve active student participation. The teaching materials used were mostly textbooks, without the support of visual media, concrete aids, or other interactive approaches that could increase students' interest in learning.

This condition became the main basis for the development of BIKIPASI media, which is expected to address these limitations. This media is designed so that it can be used without the need for digital devices such as computers or internet connections, making it very suitable for use in rural areas with limited access to technology. In addition, this media is also designed to be adaptable to other teaching materials, so its use is not limited to only one specific topic. With the BIKIPASI media, the learning process at Buddhist Sunday School not only becomes more interesting and enjoyable, but also more meaningful because it is tailored to the conditions, needs, and characteristics of the students in that environment.

Table 1. Summary of Expert Media Validation Results

No	Aspect	X
	Principles	4.7
	Management	5
	Bikipasi	4.86
	Content relevance	5
	Number	19.64
	Average	4.91

Source: 2025 research data analysis results

Based on Table 1 regarding the recapitulation of validation by media experts, it can be seen that the average score of 4.91 covers the following aspects: rules: 4.78, management: 5, creativity: 4.86, content relevance: 5, and this percentage is classified as very good. Based on the validation review by media experts in Buddhist religious education, comments and notes were made regarding this interactive media. The comments provided by subject matter experts revealed that: "the font size on the topic cards should be standardized, the bearings on the media should be smooth and not jammed, and the

command cards can be printed on PVC cards." Based on the comments and suggestions from media experts, the following revisions were made to the media:



Figure 2. Display Change Scheme

The revisions made cover various important aspects in media development. One of the main focuses is the presentation of the media, which is now designed to be more informative and structured. In addition, user comfort is also a priority by presenting a more user-friendly and easy-to-understand display. Not only that, ease of use has also been improved so that users can access the material more efficiently. In the next stage, updates are directed at visual aspects to make the material display fresher and more attractive. This refreshment is expected to increase user interest and engagement in the learning process.

Table 2. Summary of Media Expert Validation Results

Aspect	X
Principles	4
Characteristics	4
Functions	4
Benefits	4.13
Management	4.2
Evaluation	5
Clarity	4
Systematicity	3.5
Total	32.83
Average	4.10

Source: 2025 research data analysis results

Based on Table 2 regarding the recapitulation of validation by Buddhist subject matter experts, it can be seen that the average score of 4.10 covers the following aspects: rules: 4, characteristics: 4, functional aspects: 4, benefit aspects: 4.13, management aspects: 4.2, evaluation aspects: 5, clarity aspects: 4, and systematic aspects and percentages, which are categorized as good. Based on the validation review by Buddhist subject matter experts, comments and notes were made regarding this interactive media. The comments provided by the subject matter experts stated: "tidy up the instructions and adjust the

writing". Based on the comments and suggestions from the media experts, the following revisions were made to the media:



Figure 4. Display Change Scheme

Revisions were made in the context of changes to the media display, namely font size, color selection, and writing spacing. After the media was developed, a validation test was conducted by two experts, namely media experts and subject matter experts. The validation results showed that the bikipasi received an average score of 4.91 from the media expert, which was categorized as "Very Good," and 4.1 from the subject matter expert, which was categorized as "Good." Both assessors provided suggestions for improvement related to font size, image clarity, and ease of rotation on the teaching aids. Based on this input, the researchers revised the product before using it in a limited field trial.

3.1. Product Trial Results

The field trial in this study was conducted with six students from the Majjhima Sekha level who actively participated in the Buddha Dharma Santi Sunday School activities. The main objective of this trial was to evaluate the effectiveness of the BIKIPASI learning media in improving students' understanding of character values, particularly the culture of honesty and humility. The researchers used a pretest and posttest evaluation method, which was administered before and after the use of the media, to measure the improvement in student learning outcomes quantitatively. This instrument was chosen because it could provide an objective picture of the students' initial abilities and the changes that occurred after the media was used in the learning process.

The data obtained from this trial not only served as an indicator of the initial success of the media implementation but also became an important basis for refining the product

design. The results of these measurements help researchers identify which aspects of the media still need to be adjusted, whether in terms of content, appearance, or presentation. Thus, the revision process can be directed more specifically and based on factual findings in the field.

In addition to providing direct feedback on the quality of the media, the trial data also plays a crucial role in the final decision regarding the product's feasibility. The findings form the basis for determining whether the BIKIPASI learning media has met pedagogical feasibility standards and can be declared ready for wider use in Sunday school environments. Overall, this trial stage is a very vital stage in the media development process because it determines the final success of the entire series of research and development activities carried out. Further details regarding the trial results and data analysis will be presented in the next section.

Table 3. Pre- and post-use product scores

No	Before	After
	50	80
	30	70
	42	80
	60	90
	50	100
	60	90
Total	292	510
Average	49	85
<i>Min</i>	30	70
<i>Max</i>	60	100

Source: results of data processing from research in 2025

Based on Table 3, the test results of six students were obtained. Before using the learning media, the total score was 292, with an average of 49. The lowest score, 30, was obtained by student number 2, while the highest score was 60. After applying the media in Sunday school lessons, an improvement in student learning outcomes was expected. The media was applied to six students regardless of gender. After using the media, the total score increased to 510, with an average of 85. The lowest score after using the media was 70, and the highest score reached 100. There was a total score difference of 218, obtained from subtracting 510 from 292.

To determine the significant difference between the scores obtained before and after using the media, the researcher used the Paired Sample T Test. Determining the hypothesis

H_0 = There is no difference between the average score before using the media and the average score after using the media.

H_a = There is a difference between the average score before using the media and the average score after using the media.

The test used a two-tailed test with a significance level of $\alpha = 5\%$. The significance level in this case means that the researcher takes the risk of making a mistake in deciding

to reject the correct hypothesis by a maximum of 5% (significance of 5% or 0.05 is a standard measure often used in research). This resulted in the following table:

Table 4. Paired Samples Statistics

Paired Samples Statistics					
		Mean	N	Std. Deviation	Std. Error of the Mean
Pair 1	Pretest	48.6667	6	11.43095	4.66667
	Posttest	85.0000	6	10.48809	4.28174

Source: data processing using SPSS for Windows

Based on Table 4, the results of data processing in the Paired Samples Statistics table show standard deviations before and after use of 11.43095 and 10.48809 with a sample size of 6 and a mean of 48.667 and 85.0000. The correlation table is described below:

Table 5. Paired Samples Correlations

Paired Samples Correlations				
		N	Correlation	Sig.
Pair 1	Pre-test & Post-test	6	.734	.097

Source: SPSS for Windows data processing

Based on Table 5, the results of data processing of scores before and after the use of media obtained a correlation score of 0.734 with a significance of 0.097, so it can be said that between the two variables: the result of 0.734 means that it is not significant with a significance level of 0.05 greater than 0.097 in the table.

Table 6. Paired Samples Test

				Pair 1 Pre-test - Post-test
Pair Differences	Mean			-36.33333
	Std. Deviation			8.04156
	Std. Error of the mean			3.28295
	95% confidence interval of the difference	Lower		-44.77243
		Upper		-27.89424
	T			-11.067
	Df			5
	Sig. (two-tailed)			.000

Source: SPSS for Windows data processing

Table 6 shows the results of the t-test. From the table above, the calculated t-value is -11.067. The t-distribution table is searched at $\alpha = 5\%$: $2 = 2.5\%$ (two-tailed test) with degrees of freedom (df) $n-1$ or $6-1 = 5$. With a two-tailed test (significance = 0.025), the result obtained for the t-table is 2.5706.

Test criteria:

H_0 is accepted if $-t_{table} \leq t_{calculated} \leq t_{table}$

H_0 is rejected if $-calculated\ t < -t_{table}$ or $calculated\ t > t_{table}$

Based on probability:

H_0 is accepted if $p \text{ value} > 0.05$

H_0 is rejected if $p \text{ value} < 0.05$

Based on the t-test calculation results, the calculated t value is -11.067, while the table t value is ± 2.5706 with a significance level of 5% ($\alpha = 0.05$) and degrees of freedom (df) $n-1$ or $6-1 = 5$. Because t count is outside the acceptance region of H_0 , namely $t \text{ count} < -t \text{ table}$ ($-11.067 < -2.5706$), the decision taken is to reject H_0 and accept H_a . In addition, the p-value of 0.00, which is smaller than $\alpha = 0.05$ ($0.00 < 0.05$), further strengthens the decision to reject H_0 . Thus, it can be concluded that there is a significant difference between the average scores before and after using the learning media.

4. Discussion

This study shows that the results of media development are in line with the researcher's expectations, namely that it is considered suitable for use in the learning process. Based on the validation results by media experts, the product obtained a score of 4.91 with a percentage of 98%, which is classified as "Very Good". Meanwhile, the validation results from subject matter experts showed a score of 4.1 with a percentage of 82%, which is classified as "Good". A summary of the assessment of the entire product validation process is explained in the following recapitulation:

Table 7. Product Validation Recap

Product Validation Summary			
No	Expert	Mean	Category
1.	Media	4.91	Very high
2.	Materials	4.1	Very high
	Amount	9.01	-
	Average amount	4.51	Very high

Source: researcher data processing in 2025 using Microsoft Excel 2019

The results of product validation tests conducted on media and materials show that the average is 4.21 with a percentage of 90% and is categorized as very good. This media is packaged as an Educational Teaching Aid that can be combined with other materials and comes with a guidebook explaining how to use the media. The use of educational teaching aids can help attract students to be active in learning activities [18]. Thus, overall, learning media in the form of Educational Teaching Aids has high feasibility based on expert assessments and is reinforced by the general theory that the media developed by researchers can be applied as tools to assist or support the learning process.

This research on the development of BIKIPASI learning media is highly relevant to previous studies in the field of learning media development based on Educational Teaching Aids (APE) and the Game-based Learning approach. The use of APE is very important to stimulate the development of children's basic skills, such as logical thinking, creativity, and active involvement in the learning process [13]. This is in line with the development objectives of BIKIPASI as interactive APE designed to improve Sunday School students' understanding of religious values.

In addition, other studies that have developed Android-based chanting applications show a trend toward the use of digital technology in Buddhist religious education [19]. However, BIKIPASI is a unique innovation because it does not rely on internet access or electronic devices, making it more accessible in areas with limited technological facilities. Thus, BIKIPASI fulfills the need for learning media that is simple, effective, and child-friendly.

Furthermore, the game-based learning model plays a significant role in increasing student activity and motivation to learn [9]. BIKIPASI applies this principle through a Ferris wheel and answer box mechanism that makes learning more dynamic and enjoyable. Expert validation and field trials also prove that this media is well received by students and is able to improve their understanding of the concepts of Honest Culture and Humble Culture.

This research and development uses the Borg and Gall model, which has ten stages in its application, but was only carried out up to stage 7 because this model is often impractical for academic research such as theses. Developmental research aims to produce new innovations in the form of products or models, starting from problem analysis, design, development, implementation, and evaluation [20]. However, the implementation of the entire cycle, especially the last three stages of operational testing, final revision, and dissemination and implementation, requires enormous resources in terms of time, energy, and cost. The dissemination and implementation stages, for example, focus more on mass distribution of the product, which is beyond the scope and main objectives of a thesis.

Therefore, this study limits the development procedure to only the seventh stage, namely the revision of the operational product after the main field trial. This approach is in line with the practice in a number of small-scale studies, especially at the undergraduate level, which generally stop the process before the stages of operational field testing, final revision, and dissemination. Previous studies have stated that "preliminary field testing" followed by "main product revision" is often the end point in many thesis studies due to time and cost constraints [20]. In addition, other relevant research also confirms that further stages such as a second main field test, final operational revision, and dissemination are often overlooked in media development due to resource constraints [21]. By completing the seven initial stages, the product in this study has undergone a process of needs analysis, planning, design, expert validation, field testing, and revision, so that it can be considered a valid and reliable product model in accordance with the objectives of this study.

One of the main advantages of developing bikipasi media is its ability to reduce children's dependence on digital devices such as cell phones, which in the long term can have a negative impact on children's physical and mental health. Excessive use of gadgets by children has been shown to cause various problems, ranging from sleep disorders and decreased concentration to behavioral problems. As stated in the literature, excessive use of digital media by children can interfere with their daily activities and affect their social and emotional relationships [22].

By utilizing non-digital media such as bikipasi, children are encouraged to learn through direct interaction, group games, and reflection on moral stories without having to rely on screens. This approach not only helps maintain children's eye health and posture but also develops social skills, such as cooperation, empathy, and communication, which are often marginalized in gadget-based learning. In this context, BIKIPASI makes a real contribution as a child-friendly learning medium that is in line with the principles of holistic value-based education.

The use of BIKIPASI media not only provides quantitative improvements in learning outcomes, as seen in the pretest and posttest results, but also brings qualitative changes to the learning atmosphere and process. Based on observations made during the field trial, there was a significant increase in student participation during the learning process. Students became more enthusiastic, actively asked questions, and showed greater interest in the material presented.

The supervising teachers at the Buddha Dharma Santi Sunday School also responded positively to the use of this media. In a brief interview, one of the supervisors said that students who were usually passive in class became more active when learning was conducted using BIKIPASI media. Interaction between students also increased because this media is designed to be played in groups, thereby encouraging more intense discussion and cooperation among them.

Furthermore, this media has a positive impact on students' understanding of moral values such as honesty and humility. Based on observations and feedback from students, most stated that the games in BIKIPASI helped them remember the stories and values contained therein more easily. One student said, "I prefer learning with games like this because it's more exciting and I remember what to do if I want to be an honest person."

The local context used in the media is also one of the factors for its success. The use of symbols, stories, and game formats that are relevant to the daily lives of children in rural areas makes this media feel familiar and relatable. This reinforces previous studies' findings that contextual media is more effective in building students' understanding of the material being taught, especially in character education [13].

Additionally, the success of this media in improving student learning outcomes also shows that learning does not always have to rely on digital technology. In environments with limited access to the internet and electronic devices, innovations based on physical teaching aids such as bikipasi are actually a very effective alternative. This reinforces the idea that the development of learning media needs to consider the local and real conditions and needs of students.

5. Conclusion

This study aims to develop an innovative learning medium in the form of an Educational Teaching Aid (APE) called BIKIPASI (Bianglala Kisah Panggung Sinaran) to support the learning process at the Buddha Dharma Santi Sunday School, East Lampung. Based on the results of validation by media and material experts and field trials, several key findings were obtained, as follows: 1) The process of developing the BIKIPASI learning media was carried out through the Borg and Gall research and

development model stages, which had been adjusted to the seventh stage. This process began with the identification of problems in the field, which showed the lack of use of innovative learning media and limited technological facilities in the Buddhist Sunday School environment. BIKIPASI was developed as an easy-to-use educational tool that does not rely on digital technology and is capable of delivering teaching materials interactively, particularly on the topics of honest culture and humble culture. 2) BIKIPASI learning media was proven to be feasible for use based on assessments by media and material experts. This media was rated as excellent by media experts and good by material experts. The assessment covers aspects of design, clarity of information, ease of use, and suitability for learning objectives. These criteria indicate that BIKIPASI media has met the standards of feasibility as an educational, enjoyable, and effective learning aid for use in Sunday school activities. 3) BIKIPASI learning media has been proven effective in improving student learning outcomes, particularly in understanding the values of Honest Culture and Humble Culture. This is evidenced by a comparison of learning outcomes before and after using the media, which shows a significant increase in understanding. This media is able to attract students' attention, encourage active involvement in the learning process, and provide a more concrete and meaningful learning experience.

References

- [1] M. T. Wahyuni, V. D. Agustin, and S. Safaah, "Analisis Kesenjangan Kualitas Sarana dan Prasarana Pendidikan di Sekolah Dasar," *JIPDAS: Jurnal Ilmiah Pendidikan Dasar*, vol. 2, no. 1, pp. 75–85, 2023, [Online]. Available: <https://ejournal.lpipb.com/index.php/jipdas>
- [2] Rakhmawati, "Alat Permainan Edukatif (APE) untuk Meningkatkan Perkembangan Sosial Emosional Anak Usia Dini," *Bulletin of Counseling and Psychotherapy*, vol. 4, no. 2, pp. 381–387, 2022, doi: 10.51214/bocp.v4i2.293.
- [3] J. A. Pradana, "Pelatihan Pembuatan Media Pembelajaran Interaktif Bagi Guru SMB Mahabodhicitta Desa Sampetan Dengan Menggunakan Smart App Creator," *Journal of Education*, vol. 5, no. 4, pp. 16637–16647, 2023.
- [4] F. Velinda, C. R. Valentinna, S. K. Ningrum, S. D. Hasanah, and T. Permatasari, "Pemanfaatan Media Interaktif untuk Meningkatkan Kreativitas Anak Berkebutuhan Khusus di Sekolah Dasar," *Jurnal Basicedu*, vol. 8, no. 4, pp. 2420–2430, 2024, doi: 10.31004/basicedu.v8i4.7872.
- [5] A. I. Berutu, M. Roza, and R. N. Hsb, "Peran Guru Dalam Menggunakan Media Pembelajaran Interaktif Untuk Membangun Motivasi dan Minat Belajar Siswa," *Inspirasi Dunia: Jurnal Riset Pendidikan dan Bahasa*, vol. 3, no. 3, pp. 88–97, 2024, doi: 10.58192/insdun.v3i3.2249.
- [6] S. Subella, L. Hakim, and R. Rizhardi, "Pengaruh Metode Demonstrasi Berbantuan Alat Peraga Terhadap Pemahaman IPA Siswa," *Journal of Education Research*, vol. 4, no. 2, pp. 759–762, 2023.
- [7] Pebrianto, Herpratiwi, and H. Fitriawan, "Pengembangan Multimedia Pembelajaran Hari Raya Agama Buddha di Sekolah Minggu Buddhis

- Bodhisattva,” *Edukatif: Jurnal Ilmu Pendidikan*, vol. 3, no. 4, pp. 1261–1270, 2021, doi: 10.31004/edukatif.v3i4.556.
- [8] I. Ismadi, S. Sukodoyo, and W. Widiyono, “Upaya Peningkatan Keaktifan Siswa Melalui Pembelajaran Cerita Jātaka di Sekolah Minggu Buddhis Viriya Dhamma Kabupaten Semarang,” *Jurnal Maitreyawira*, vol. 3, no. 1, pp. 8–17, 2022, doi: 10.69607/jm.v3i1.47.
- [9] A. D. Untari, “Game Based Learning: Alternative 21st Century Innovative Learning Models in Improving Student Learning Activeness,” *Edueksos: Jurnal Pendidikan Sosial dan Ekonomi*, vol. 11, no. 2, 2022, doi: 10.24235/edueksos.v11i2.11919.
- [10] Aji Nugroho and Muljadi Muljadi, “Pengaruh Kepemimpinan Visioner dan Motivasi Berprestasi terhadap Inovasi Guru Pendidikan Agama Buddha se-Provinsi Bali,” *Dhammavicaya : Jurnal Pengkajian Dhamma*, vol. 5, no. 2, 2022, doi: 10.47861/dv.v5i2.37.
- [11] H. Abubakar, Sukmawati, and S. Nurhidayanti, “Dampak Transformasi Organisasi Terhadap Keberlanjutan Usaha Perjalanan Wisata Di Kota Makassar,” *Jurnal Mirai Managemnt*, vol. 4, no. 2, 2019.
- [12] T. A. L. Natsir, *Pengembangan Alat Permainan Edukatif Anak Usia Dini*. 2022. [Online]. Available: <http://repository.iainpare.ac.id/4789/2/Draft%20Buku%20Bu%20Tri.pdf>
- [13] Trimansyah, “Implementasi Alat Peraga Edukatif Dalam Mengembangkan Sains Anak,” *Fashluna: Jurnal Pendidikan Dasar dan Keguruan*, vol. 2, no. 2, pp. 73–79, 2021, doi: 10.47625/fashluna.v2i2.333.
- [14] N. Fadiyah, “Efektivitas Pemanfaatan Alat Peraga Edukatif (APE) Balok Dalam Mengembangkan Kognitif Anak Usia Dini,” 2019.
- [15] Marlioni, “Peningkatan Kemampuan Guru Menggunakan Alat Permainan Edukatif (APE) Melalui Supervisi Kunjungan Kelas di 2 TK Binaan Kota Bandar Lampung,” *Attraction: Innovative Education Journal*, vol. 4, no. 3, pp. 1–12, 2022.
- [16] Sugiyono, *Metodologi penelitian kuantitatif kualitatif dan R&D*. 2020.
- [17] B. Simamora, “Skala Likert, Bias Penggunaan dan Jalan Keluarnya,” *Jurnal Manajemen*, vol. 12, no. 1, pp. 84–93, 2022, doi: 10.46806/jman.v12i1.978.
- [18] B. Muqdamien, D. P. Raraswaty, and U. S. M. Hasanuddin Banten, “Tahap Definisi Dalam Four-D Model Pada Penelitian Research & Development (R&D) Alat Peraga Edukasi Ular Tangga Untuk Meningkatkan Pengetahuan Sains Dan Matematika Anak Usia 5-6 Tahun,” *Jurnal*, vol. 6, no. 1, 2021.
- [19] Susanto, J. Suryanadi, D. Kundana, and D. W. Putra, “Learning Media Model Development: Android-Based Chanting Application for Sunday School Students,” 2023.
- [20] Assyauqi, “Model Pengembangan Borg and Gall,” Institut Agama Islam Negeri, 2020. Accessed: Nov. 12, 2025. [Online]. Available: <https://www.taufiq.net/2019/09/model-penelitian-pengembangan-borg-and.html>
- [21] J. Nawali, H. I. Navika, I. K. Mufidah, and S. Susilawati, “Pengembangan media pembelajaran di MI dan SD menggunakan model Borg and Gall,” *Cahaya: Journal*

- of Research in Science Education*, vol. 2, no. 1, 2024, doi: 10.70115/cahaya.v2i1.133.
- [22] Haeriah, I. Muttaqijn, and E. Y. Kurniawan, “Dampak Penggunaan Media Digital Terhadap Perkembangan Perilaku Sosial Anak Usia 7 Tahun,” *Jurnal Pendidikan SEROJA*, vol. 2, no. 4, pp. 520–528, 2023, [Online]. Available: <http://jurnal.anfa.co.id/index.php/seroja>