

**Development of Local Wisdom-Based PBL using Paper Puppets to Improve Student's Creativity**Eli Sofiana^{1*} Kamila Nisa Nur Fadila² Murfiah Dewi Wulandari³¹Universitas Negeri Semarang, Indonesia^{2,3}Universitas Muhammadiyah Surakarta, Indonesia*E-mail:elisofiana@students.unnes.ac.id¹*Submitted: December 18, 2024**Revised: November 6, 2025**Approved: November 27, 2025*

Abstrak: Penelitian ini bertujuan untuk mengembangkan metode pembelajaran berbasis proyek (*Project Based Learning*) yang mengintegrasikan kearifan lokal melalui penggunaan boneka kertas, dengan fokus pada peningkatan pemikiran kreatif siswa kelas III di sekolah dasar. Metode pengembangan yang digunakan adalah model ADDIE, yang mencakup lima langkah utama: Analisis, Desain, Pengembangan, Implementasi, dan Evaluasi. Pada tahap analisis, penelitian ini mengevaluasi kebutuhan dan karakteristik siswa serta mendetailkan tujuan pembelajaran yang ingin dicapai. Langkah berikutnya, yaitu desain, melibatkan desain kurikulum proyek berbasis kearifan lokal menggunakan boneka kertas. Proses pengembangan melibatkan pembuatan materi pembelajaran, sumber daya, dan alat pendukung lainnya yang sesuai dengan kebutuhan desain. Implementasi dilakukan di kelas III, dengan teknik pengumpulan data berupa observasi dan kuesioner untuk menilai minat dan pemahaman siswa terhadap materi pembelajaran. Selain itu, teknik triangulasi digunakan untuk memastikan validitas data yang terkumpul. Hasil evaluasi menunjukkan bahwa persentase rata-rata validitas aspek daya tarik dan pemahaman siswa mencapai tingkat yang memadai, dengan total validitas mencapai 88,1%. Temuan ini memberikan kontribusi positif terhadap pengembangan model pembelajaran berbasis proyek dengan memanfaatkan kearifan lokal melalui boneka kertas. Penerapan Metode ADDIE bersamaan dengan penggunaan teknik pengumpulan data memberikan dasar yang kuat dalam perencanaan, pengembangan, dan evaluasi efektivitas implementasi pembelajaran.

Kata Kunci: *Project Based Learning, Kearifan Lokal, Wayang Kertas, Berpikir Kreatif*

Abstract: This research aims to develop a project-based learning method (*Project Based Learning*) that integrates local wisdom through the use of paper puppets, with a focus on improving the creative thinking of class III students in elementary schools. The development method used is the ADDIE model, which includes five main steps: Analysis, Design, Development, Implementation, and Evaluation. At the analysis stage, this research evaluates students' needs and characteristics and details the learning objectives to be achieved. The next step, namely design, involves designing a local wisdom-based project curriculum using paper puppets. The development process involves creating learning materials, resources, and other supporting tools that suit design needs. Implementation was carried out in class III, with data collection techniques in the form of observations and

questionnaires to assess students' interest and understanding of the learning material. In addition, triangulation techniques were used to ensure the validity of the data collected. The evaluation results show that the average percentage of validity of aspects of students' attractiveness and understanding reaches an adequate level, with a total of 88.1% validity achieved. These findings provide a positive contribution to the development of a project-based learning model by utilizing local wisdom through paper puppets. The application of the ADDIE Method together with the use of data collection techniques provides a strong foundation in planning, developing, and evaluating the effectiveness of learning implementation.

Keywords: Project Based Learning, Local Wisdom, Paper Puppets, Creative Thinking

INTRODUCTION

The level of creative thinking ability in Indonesia is facing serious challenges, as revealed in The Global Creativity Index 2015 which places this country in 115th place out of 139 countries (Dewi et al, 2019). This position indicates a deficiency in developing creative potential in society (Alfillaili et al., n.d.; Damayanti & Sumardi, 2018). The main challenge lies in the education sector, where the lack of creative thinking practice is a critical issue. Teachers tend to focus more on a rote approach rather than providing a deep understanding of concepts. The role of language in textbooks is also in the spotlight because it can influence students' perceptions of the material (Hidayat & Widjajanti, 2018). Research conducted by Kusuma & Dwiastuti (2018) has shown that creative thinking competence, especially in the aspects of flexibility and elaboration, is still at a low level. This creates an imbalance in students' preparation for the era of globalization, where higher-level thinking skills, such as critical, creative, and productive thinking, are becoming increasingly essential. To overcome this problem, greater efforts are needed to increase awareness of the importance of developing creative thinking abilities. In addition, there needs to be reform in education to pay more attention to learning methods that encourage creativity and understanding of concepts. As the complexity of modern life continues to grow, strengthening high-level thinking skills is a necessity so that Indonesia can compete globally and face future challenges more effectively (Sekar et al., 2015).

Learning with the Project Based Learning (PBL) approach has become relevant in the context of 21st century education which emphasizes the development of "super skills" such as critical, creative, collaborative thinking, and effective communication skills (BSNP, 2006: 416). The PBL concept is designed to create deep and meaningful learning experiences (Gumartifa et al., 2023; Sari & Angreni, 2018). In this context, learning media is considered a key element in conveying learning messages effectively (Fatahillah et al., 2020; Hermita et al., 2021). Media is not just a supporting tool but also plays an important role in ensuring the success of the learning process. Developing creative and innovative

ideas in creating learning media that is not only effective but also interesting for students (Kusmiati, 2020; Nugroho et al., 2025). Creativity and innovation are important aspects of developing learning media. By utilizing a PBL approach, educators can design learning projects that are challenging and relevant to students' daily lives. These projects may involve solving real problems, product development, or in-depth investigations of specific topics. Along with that, learning media can be designed to support and enhance the learning experience through the use of technology, images, sound, and interactivity. The importance of creativity in developing learning media is also related to student motivation. Media designed interestingly can increase student interest and involvement in the learning process. Therefore, educators need to always look for new ways to present learning material innovatively, so that it can trigger students' curiosity and enthusiasm for learning. Overall, the PBL approach and the development of creative and innovative learning media are crucial steps in meeting the demands of 21st-century education. Through this approach, students can be guided to develop skills that are not only relevant in the academic world but also in their daily lives and careers in the future (Rayandra, 2012: 5).

Learning media has a crucial role in forming students' interest in reading, and various types of media have been proven effective in increasing motivation and learning outcomes (Puspitarini & Hanif, 2019). One type of media that attracts students' attention is paper puppets, a fascinating form of two-dimensional media (Permana, 2015). Paper puppets have their uniqueness with bright and cute images of puppet characters. Made from paper, these paper puppets not only provide additional motivation for learning but are also a very useful tool for teachers to deliver learning material creatively and interactively (Hamid et al., 2020). Equipped with sticks, paper puppets create a movement effect, adding an interactive dimension to the learning environment. The presence of paper puppets in the classroom can change the learning atmosphere to be more lively and fun. In the learning process, students are not only invited to observe interesting Paper Puppets images but are also invited to actively participate through stem movements that they can control (Badin, 2021; Muhammadin et al., 2022). This creates a more enjoyable learning experience and encourages student participation. Apart from being a motivator, paper puppets can also help increase students' focus on learning material (Zafira & Artharina, 2017). With attractive visuals, students are more likely to be involved in the learning process and understand the concepts being taught. This creates more effective and memorable learning. The use of paper puppets can be applied, allowing teachers to be more creative in presenting material. With its important role in increasing student interest and learning outcomes, paper puppets are a very efficient and interesting alternative learning media (Kiki Anisofia, 2022).

Based on a needs analysis conducted at SD Muhammadiyah 1 Surakarta, an empirical gap was identified. Observations in the third-grade class revealed that the learning process was heavily reliant on the teacher as the main source of knowledge, primarily using lecture methods and watching videos. This conventional approach was found to be boring for students, causing many to feel sleepy and decreasing their learning motivation. Teachers confirmed that current methods were less attractive and that innovative learning media, especially those based on local wisdom, were not widely implemented. This gap between the curriculum's demand for creative thinking and the passive, monotonous reality of the classroom forms the basis for this research.

To address this problem, this research focuses on the development of a Project Based Learning (PBL) media integrated with local wisdom in the form of paper puppets. As previously discussed, paper puppet media has the potential to increase student motivation and participation. Therefore, this study aims to design, develop, and evaluate the effectiveness of this paper puppet media using the ADDIE model. Specifically, this research seeks to answer: (1) How is the paper puppet media developed using the ADDIE model? (2) What is the validity and feasibility level of the media according to expert validation and third-grade student responses? (3) How can this media help improve students' enthusiasm and creative thinking in the learning process?

The Project Based Learning (PBL) approach is a highlight of 21st-century education, focusing on developing critical, creative, and collaborative thinking skills essential for facing complex global challenges (BSNP, 2006; Sari & Angreni, 2018). This concept views learning media not merely as support tools but as elements significantly influencing the learning process's effectiveness. Through PBL, educators can design challenging projects relevant to students' daily lives, creating deep and meaningful learning experiences (Gumartifa et al., 2023). The use of visualization, interactivity, and real-life experiences in these projects can enhance student interest, engagement, and conceptual understanding. Therefore, continuous efforts to create innovative and effective learning media are crucial steps in meeting the demands of today's dynamic education landscape.

This research discusses innovative solutions in learning through the development of new media called Paper Puppets. Paper Puppets is specifically designed for third-grade Theme 7 Subtheme 2, offering an interesting alternative by using cardboard as the main material. One of the main unique features of Paper Puppets is that it does not require a whiteboard, making it possible for learning to take place outside the classroom. Paper puppets are considered an interesting and effective choice because they can attract students' attention (Permana, 2015), increase focus on learning material (Zafira & Artharina, 2017), and serve as efficient alternative media (Kiki Anisofia, 2022). With a focus on "Paper

Puppets Media Development," this research aims to increase the enthusiasm and motivation to learn in third-grade students.

METHODS

This research creates a strong conceptual foundation for developing new models using a research and development (R&D) approach with the main aim of producing effective and innovative products (Sugiyono, 2014: 297). The method adopted in this research follows the Analysis, Design, Development, Implementation, and Evaluation (ADDIE) approach proposed by Reiser and Mollenda (Benny, 2016). The first stage in the research and development process includes a needs evaluation, which is carried out through observations and interviews with educators at Muhammadiyah 1 Surakarta Elementary School (Endang Mulyatiningsih, 2012: 161; Sukmadinata, 2008). The main focus of this analysis is identifying the need for local wisdom media, with Paper Puppets being the main highlight. To increase the relevance and attractiveness of the material, student analysis is involved, with an emphasis on the characteristics of third-grade elementary school students, following Jean Piaget's theory of cognitive development.

The next process involved design development, where Paper Puppets media was designed and implemented for third-grade students at SD Muhammadiyah 1 Surakarta. Product trials are carried out to get direct feedback from end users. Product validation involves media experts and material experts, who provide valuable input for further improvements. Content analysis techniques are used to investigate qualitative aspects, while quantitative data is used to measure effectiveness and user satisfaction with the product. It is hoped that the results of this evaluation can provide guidance and a deeper understanding of the success of this development model and its contribution in the educational context.

The process of developing learning media at SD Muhammadiyah 1 Surakarta involves collaboration between one media expert, two material experts, and 21 third-grade students. The media expert was chosen based on their expertise in instructional technology and design to ensure the technical quality and interactivity of the product. The two material experts were selected for their in-depth knowledge of the Social Studies curriculum for elementary schools to guarantee content accuracy and relevance to learning objectives. Meanwhile, the 21 third-grade students were involved as end-users to test the media's attractiveness, ease of use, and effectiveness in a real classroom setting.

Participants

This study involved one third-grade homeroom teacher at SD Muhammadiyah 1 Surakarta as the primary respondent during the preliminary analysis stage. This educator was purposively selected due to their direct experience in managing the third-grade classroom and their deep understanding of the students' needs, characteristics, and learning difficulties in Social Studies. Data from this teacher was crucial for identifying the initial problems and justifying the need for developing new learning media.

Materials

During the development design phase, the focus was on designing Paper Puppet media and integrating learning concepts about types of jobs for third-grade students. This design considered aspects of creativity, appeal, and material relevance to the existing curriculum.

Procedure

The implementation process of the learning media was carried out collaboratively between media experts, subject matter experts, and third-grade students. Implementation steps included testing the product in a real environment, namely at Muhammadiyah 1 Elementary School in Surakarta, where direct feedback from end users was obtained for further refinement.

Data Analysis

Data collected from observations, interviews, product testing, and evaluation were analyzed separately. Qualitative analysis was used to understand students' and experts' responses to the learning media, while quantitative analysis used Likert and Guttman scales to measure effectiveness, satisfaction, and students' responses to learning integrated with Paper Puppet media. The results of this analysis provide a comprehensive overview of the success of the development model used in an educational context.

Table 1. Likert Scale

Alternative Answers	Score
Very satisfactory	5
Satisfying	4
Good enough	3
Less satisfactory	2
Very Unsatisfactory	1

Evaluation is carried out by comparing the scores given by the validator. The following is the formula for calculating the average value of validator assessments:

$$P = x 100\% \frac{f}{N}$$

With description:

P = Score the percentage sought

f = Score acquisition by validators

N = Score maximum

From the percentage data presented above, the validation criteria used in media development are explained in detail in the following table:

Table 2. Validation Criteria Percentage

Percentage	Criteria
84%-100%	Excellent
68%-83%	Worthy
52%-67%	Decent Enough
36%-51%	Not Worth It
20%-35%	Not feasible

Student achievement is measured using the Guttman scale, which obtains responses in the form of "Yes" or "No" using a checklist (Sugiyono, 2017). The percentage of responses to students' creative thinking abilities was calculated to evaluate the increase in abilities after implementing Paper Puppets media.

Table 3. Guttman Scale

Score	Information
1	Yes
0	No

The calculation of the percentage of responses to students' creative thinking abilities is applied using a formula compiled by Agustina (2015). The formula used can be described as follows:

$$P = \frac{\Sigma x}{\Sigma y} \times 100\%$$

With description:

P = Percentage of questionnaires

Σx = Total answers given by students

Σy = Maximum overall score

After obtaining quantitative data, these values are then interpreted into qualitative values using the following score criteria:

Table 4. Score Criteria

Score	Assessment Classification
Score \geq 50%	Valid
Score < 50%	Invalid

After using local wisdom media in the form of paper puppets in learning material about types of work in class III elementary school, an evaluation was carried out using a multiple choice test. Assessment is carried out by counting the number of correct answers in the test.

Value = Correct Number x 5

Data processing also involved the use of multiple-choice tests to assess students' creative thinking abilities, with assessment criteria separating the levels of "Improved" and "Not Improved." The research results are then interpreted and concluded to present the research findings as a whole.

Table 5. Value Criteria

Mark	Assessment Classification
Score \geq 70	Increase
Value < 70	Not Increasing

The Likert Scale and Guttman Scale are two commonly used measurement methods in research to evaluate individual responses or perceptions on a topic or question. The Likert Scale is typically used to measure the level of agreement or disagreement with a specific statement by providing answer choices within an ordinal range, for example, from "Very Satisfactory" to "Very Unsatisfactory." This scale provides flexibility in measuring the intensity of responses, thus providing more detailed information about preferences or respondents' views.

An example of using the Likert Scale in research is in measuring user satisfaction with a product or service, assessing the quality or effectiveness of a program, or evaluating respondents' perceptions of a specific phenomenon. For instance, in a study on the effectiveness of learning media, respondents may be asked to rate their satisfaction level with the media's effectiveness using the Likert Scale.

On the other hand, the Guttman Scale is a measurement method that measures binary responses, "Yes" or "No," to a series of statements or questions. This scale is commonly used to measure the extent to which respondents agree or disagree with a concept or statement. The use of the Guttman Scale is often employed in research to gauge an individual's suitability or fit to a particular situation or context.

An example of using the Guttman Scale in research is in measuring participants' responses to questions asking them to assess their understanding level of a concept with binary answers of "Yes" or "No." For instance, in a study on the effectiveness of employee training, respondents may be asked to assess whether they feel the training has improved their understanding using the Guttman Scale.

The importance of using both scales lies in their ability to provide detailed and clear information about individual responses or perceptions on a topic. In your research context, using the Likert Scale and Guttman Scale can provide a more accurate overview of the effectiveness of the Paper Puppet learning media and its impact on students' creative thinking abilities. By considering well-measured responses and perceptions through these scales, you can draw stronger conclusions about the success of the development model you are studying.

RESULTS AND DISCUSSION

This research creates a product in the form of learning media based on Local Wisdom using Paper Puppets For class III students at SD Muhammadiyah 1 Surakarta. Paper puppets were chosen as the main material in making this learning media. After going through the development process, this Paper Puppet learning media has been assessed by expert validators and deemed appropriate. Next, this media will be tested on third-grade students at SD Muhammadiyah 1 Surakarta.

1) Analysis Stage

a. Learner Analysis

From observations made in third-grade A of SD Muhammadiyah 1 Surakarta, it appears that a way of learning that only relies on watching videos and listening to the teacher speak feels boring for students. Many students feel sleepy, causing their motivation to learn to decrease, and this has an impact on students'

assessments and conditions. Therefore, it is hoped that improving learning media can foster students' enthusiasm for learning by introducing innovative elements in their learning methods.

b. Teacher Analysis

Based on observations and interviews with NA class teacher on January 3 2024 at SD Muhammadiyah 1 Surakarta, it appears that the learning process is still very dependent on the teacher's role as the main source of very important knowledge. The current use of learning models and methods is considered less attractive to students in class. NA's statement shows that social studies learning in Third-grade generally uses the lecture method and watching videos on YouTube. This weakness results in minimal student involvement in learning, where students only listen to lectures, sit and take notes.

Obstacles faced during learning include students' difficulty concentrating and lack of interest in reading the material. The teacher revealed that a solution had not been found to overcome this problem, so learning was monotonous. The use of learning media has also not been widely implemented, especially media based on local wisdom. NA stated that the lack of teacher ability and facilities was an obstacle in creating learning media. Therefore, it is hoped that the use of media, such as paper puppets, can overcome this problem and increase students' enthusiasm for learning.

c. Analysis of Learning Objectives

The purpose of learning is to provide direction for learning actors, both teachers and students. The learning process is expected to provide a basis for creating learning experiences that influence optimal learning outcomes. Students are expected to gain understanding that allows them to achieve intellectual abilities in the learning process. Success in achieving learning objectives will be reflected in students' ability to exceed the competency achievement indicators specified in the curriculum, especially related to the Types of Work third-grade elementary school material.

d. Learning Development Analysis

Observations at SD Muhammadiyah 1 Surakarta show that the development and implementation of the learning process have not been fully implemented by both teachers and students. The lack of support for facilities and infrastructure for learning methods using learning media is also an obstacle. Learning development needs to be carried out to design learning strategies, methods, and steps to achieve

competency achievement indicators according to learning objectives. One of the ideas proposed is to use learning media during the teaching and learning process.

e. Implications for Educators and Future Research

These findings suggest that integrating local wisdom, such as paper puppets, into learning media can significantly improve student engagement, motivation, and creative thinking. Educators can consider adopting similar innovative approaches to enhance learning experiences and outcomes. Future research could explore additional benefits of incorporating local wisdom into educational practices and further investigate the long-term effects on students' learning and development.

2) Design

At this stage, researchers will carry out device design planning as a solution to several problems that have been identified. The main focus of this step is to create a basic framework or model for the learning media that will be developed, to prepare a plan regarding the learning media that will be created. During this process, the researcher will design a product manufacturing structure that is tailored to the learning material that is the focus, namely Types of Work.



Figure 1. Paper Puppet Design



Figure 2. Quiz to Test Student Understanding

3) Development

After making the materials, the researcher continued making paper puppets using several materials that were easy to find. The manufacturing process was as follows:

Tools and materials:

- a. Wood glue
- b. Ice cream stick
- c. Double tip
- d. Scissors
- e. Printed paper puppet designs

How to make it:

- a. Connect 2 ice cream sticks
- b. Tighten using a double tip
- c. Attach the ice cream sticks to the paper puppets that are ready
- d. The paper puppet is ready to use



Figure 3. Paper Puppet-Making Process

4) Implementation

Direct testing in this implementation phase aims to evaluate the impact of using paper puppets as a learning tool on the creative thinking abilities of students at SD Muhammadiyah 1 Surakarta in social studies subjects, especially in the Types of Work material. This experiment was carried out at SD Muhammadiyah 1 Surakarta involving 21 third-grade students as research participants. Before carrying out the trial, the researcher delivered material about Types of Work. After that, there was an ice-breaking activity and a question and answer session. Researchers also gave quizzes related to the material that had been explained. Next, students are asked to make paper puppets according to the type of work they choose, exploring their creativity as optimally as possible. At this stage, it is tested whether students' creative thinking

abilities have developed after exposure to the material. Finally, students were asked to present the Paper Puppets they had made. After the trial was complete, the researcher distributed questionnaires to students to obtain input and feedback.

Implementation of this Local Wisdom-Based Paper Puppets learning media product involves a structured development process using the ADDIE model. The first stage is analysis, where the researcher makes observations to identify information needs in the learning media that will be created. Next, the design stage involves creating a Paper Puppet design which is printed using paper that is strong and does not fade easily, as well as determining the subject matter and product concept. The development process, the third stage, involves creating paper puppet learning media by compiling a series of types of work that produce services. At the application or implementation stage, the product will undergo validation regarding the suitability of the media. Revisions will be made based on responses from validators, then followed by product testing by students.

The validation results show that this learning media obtained a "Very Decent" percentage category. The validation was conducted by one media expert and two material experts. The media expert, Muhammad Abduh, M.Pd., chosen for his expertise in instructional media design, gave a score of 69 with a percentage of 86.25% (Table 6). Meanwhile, the first and second material experts, selected for their competency in elementary social studies curriculum, gave scores of 55 (84.61%) and 61 (93.84%) respectively (Table 7).

Table 6. Media Expert Validation Results

No	Aspect	Indicator	Score
1.	Convenience	The use of learning media is very simple	5
		The operation of learning media is quite simple	5
		The learning media workflow is easy to understand	5
		The use of learning media can be learned easily	5
		Learning media is not too complicated to use	3
		The media instructions are appropriate and make it easy for users	4

No	Aspect	Indicator	Score
2.	Display Program Results	Has the media made it clear to students to think creatively?	4
		Have the students understood the project that has been explained?	4
		Does the learning media suit the students' character?	4
		Does the learning media match the desired teaching method?	4
		Is the placement of the material being taught appropriate and appropriate?	5
3.	Technical Quality Project Effectiveness	Media interactivity	5
		Interaction between users and media	4
		The images on the media are appropriate	4
		The content in the media must be in accordance with the targets set	4
		The accuracy of the material in learning media is an important key	4
		Number of values	69
		Percentage	86.25%
		Criteria	Excellent

Table 7. Material Expert Validation Results

No	Aspect	Indicator	Score
1.	Suitability of Content and Objectives	The relevance of the content contained in the media to basic competencies and learning indicators	4
		Firmness of learning objectives	4
		Alignment of material with learning objectives	4
		Congruence between material and learning media	4
		The explicitness of the material presented in the media	5
		Easy understanding of the material by students?	5
		Suitability of the material so that it is easy to understand?	5

		Congruence of word usage with Enhanced Spelling guidelines (EYD)	4
		The effectiveness of the sentences used?	3
		Fluency in understanding the adopted language	5
2.	Instructional Quality	The ability of media to arouse student motivation?	4
		Ease of students using Paper Puppets in the learning process?	3
		Is the level of complexity of the Paper Puppets media appropriate to the development of students' creative thinking?	5
		Number of Values	55
		Percentage	84.61%
		Criteria	Excellent

Table 8. Student Overall Assessment Percentage Results

No	Aspect	Average Percentage	Category
1.	Interest & Understanding	89.53%	Valid
2.	Motivation	92.30%	Valid
3.	Convenience	84.61%	Valid
	Total	88.1%	Valid

These results suggest that the application of the ADDIE model to the development of this product has been successful, as indicated by an average percentage of 88.81% in the student questionnaire, with valid categories for aspects of attractiveness, understanding, motivation, and ease (Table 8).

5) Evaluation (Evaluation)

In the evaluation stage, the data collected from the implementation phase was analyzed to determine the product's final effectiveness and feasibility. The analysis of the expert validation data confirmed the product's high quality. The media expert validation resulted in a score of 86.25% ("Excellent" criteria). The two material expert validations were also categorized as "Excellent," scoring 84.61% and 93.84% respectively.

The student response analysis also showed highly positive results. The overall validity from the student questionnaires reached 88.1%. This score was comprised of three key aspects: Interest & Understanding (89.53%), Motivation (92.30%), and Convenience (84.61%). As all aspects were categorized as "Valid", these findings confirm that the developed paper puppet learning media was effective in engaging students and is appropriate for use in the third-grade classroom.

Furthermore, this research also involved questionnaires given to students. This data is important for understanding students' perspectives regarding their creative thinking abilities. The results of this questionnaire will be analyzed quantitatively to get a clear statistical picture of the level of students' understanding and perceptions related to creative thinking abilities.

CONCLUSION

The study successfully developed a PBL-based learning media integrated with local wisdom, utilizing paper puppets to enhance creative thinking among third-grade elementary school students. Employing the ADDIE model (Analysis, Design, Development, Implementation, and Evaluation), the research highlighted significant improvements in students' interest, understanding, and motivation towards learning. Key findings include:

1. **Increased Engagement:** The use of paper puppets as interactive learning media fostered higher student engagement and participation, breaking the monotony of traditional teaching methods.
2. **Enhanced Creative Thinking:** Students demonstrated improved creative thinking skills through activities such as designing and presenting their paper puppets.
3. **Effectiveness Validated:** Validation results showed a high percentage of validity (88.1%) in terms of attractiveness, understanding, and ease of use, confirming the effectiveness of the media.
4. **Encouragement for Active Learning:** By integrating local cultural elements, the method made learning relatable and engaging, motivating students to actively explore the material.

This innovative approach not only contributes to the advancement of teaching practices but also emphasizes the importance of incorporating local wisdom in educational strategies to nurture creativity and deeper understanding among young learners.

REFERENCES

- Achmad, C., Titi, A., Riawan, Y.P. (2021). " Pengembangan Modul Matematika Berbasis Realistik Terintegrasi Higher Order Thinking Skills (HOTS) Pada Materi Bangun Ruang", *Alifmatika: Journal of Mathematics Education and Learning*.
<https://doi.org/10.35316/alifmatika.2021.v3i1.18-31>
- Alfillaili, E., Trisanti, L. B., & Nurwiani, N. (n.d.). Students' Creative Thinking in Solving Numeracy Problems Based on Cognitive Style. *Jurnal VARIDIKA*, 35(2), 137–154.
<https://doi.org/10.23917/varidika.v35i2.23262>
- Badin, PP, & Kristiantari, MGR (2021). Pengembangan Media Wayang Karton pada Muatan Bahasa Indonesia Siswa Kelas III SD. *Jurnal Ilmiah Pendidikan Profesi Guru*, 4(2), 299-307.
<https://doi.org/10.23887/jppg.v4i2.32889>
- Damayanti, H. T., & Sumardi, S. (2018). Mathematical creative thinking ability of junior high school students in solving open-ended problem. *JRAMathEdu (Journal of Research and Advances in Mathematics Education)*, 3(1), 36–45.
<https://doi.org/10.23917/jramathedu.v3i1.5615>
- Dewi, HR, Mayasari, T., & Handhika, J. (2019). Increasing Creative Thinking Skills and Understanding of Physics Concepts Through Application of STEM-Based Inquiry. *Journal of Science Education Research*, 4(1), 25–30.
<https://doi.org/10.21831/jser.v3i1.21557>
- Endang, M. (2012). (2012). *Applied Research Methods in the Field of Education*. Bandung: Alfabeta.
<https://cvalfabeta.com/product/metode-penelitian-terapan-bidang-pendidikan/>
- Fauzi, M., Karim, A., Purnama I.M. (2021). "Increasing Teacher Competence Through Simple Whiteboard Animation-Based Learning With The Assistance Of Explee", *SELAPARANG Journal of Progressive Community Service*.
<https://doi.org/10.31764/jpmb.v4i2.4636>
- Fatahillah, A., Puspitasari, I. D., & Hussen, S. (2020). The development of Schoology web-based learning media with GeoGebra to improve the ICT literacy on quadratic functions. *JRAMathEdu (Journal of Research and Advances in Mathematics Education)*, 5(3), 304–316.
<https://doi.org/10.23917/jramathedu.v5i3.10263>
- Gumartifa, A., Syahri, I., Siroj, R. A., Nurrahmi, M., & Yusof, N. (2023). Perception of Teachers Regarding Problem-Based Learning and Traditional Method in the Classroom Learning Innovation Process. *Indonesian Journal on Learning and Advanced Education (IJOLAE)*, 5(2), 151–166.
<https://doi.org/10.30659/ijolae.5.2.151-166>
- Hamid, MA, Ramadhani, R., Juliana, M., Safitri, M., Jamaludin, MM, & Simarmata, J. (2020). *Instructional Media. We Write Foundation*.
<https://books.google.co.id/books?id=W3XYDwAAQBAJ>
- Hermita, N., Putra, Z. H., Alim, J. A., Wijaya, T. T., Anggoro, S., & Diniya, D. (2021). Elementary Teachers' Perceptions on Genially Learning Media Using Item Response Theory (IRT). *Indonesian Journal on Learning and Advanced Education (IJOLAE)*, 4(1), 1–20.
<https://doi.org/10.30659/ijolae.4.1.1-20>
- Heru Kristianto, Khusnul Fajriyah, Sukamto Sukamto. (2021). "Development Of Space Learning Media (Cow Digestion System) On Science Material Theme Healthy Food For Class V Students Of Tegalombo 04 Primary School", *TRIHAYU: Journal of Elementary School Education*.
<https://doi.org/10.30738/trihayu.v7i3.5458>

- Hidayat, PW, & Widjajanti, DB (2018). Analysis of Students' Creative Thinking Ability and Interest in Learning in Working on Open Ended Questions with the CTL Approach. *PYTHAGORAS: Journal of Mathematics Education*, 13(1), 63–75. <https://doi.org/10.21831/pythagoras.v13i1.16278>
- Ina Magdalena1, Alifa Hasna AJ2, Dhea Auliya3, Rina Ariani. (2020). Analysis of Grade VI Students' Critical Thinking Abilities in Science Learning at SDN Cipete 02 <https://doi.org/10.31604/jips.v7i3.2020.354-365>
- Juliana Margareta Sumilat, Dela Ilam, Marsela Vanesa Pangemanan, Amelia Christina Marciana Mangantibe et al. (2013). "Analysis of the Implementation of the PjBL (Project Based Learning) Model in Elementary Schools", *Basicedu Journal*. <https://doi.org/10.31004/basicedu.v7i1.4326>
- Kiki, A. (2022). Development of Waker Media to Increase Class IV Students' Learning Motivation Theme 7 The Beauty of Diversity in My Country at SDN 1 Dasan Baru (Doctoral dissertation, Muhammadiyah University of Mataram). <http://repository.ummat.ac.id/>
- Kusuma, AD, Dwiastuti, S., & Muzzazinah, M. (2018). The Influence of Problem Posing in the 5E Learning Cycle Learning Model on Students' Creative Thinking Ability. *In Proceedings Biology Education Conference: Biology, Science, Environment, and Learning*, 15(1), 296-301. <https://jurnal.uns.ac.id/prosbi/article/view/32525>
- Muhammadin, A., Fath, A., & Heru, A. (2022). Use of KGW Media (Puppet Picture Cardboard) in Thematic Learning at SDN Pendem II Sragen. *Taman Intellectuals: Journal of Elementary School Education*, 6(1), 1–13. <https://doi.org/10.30738/tc.v6i1.11663>
- Nugroho, D. A., Najah, D. K., Labibah, A. A., & Salsabila, S. (2025). Multimedia Interaktif Berbasis Games Edukatif guna Mengembangkan Kecerdasan Visual Spasial Anak Usia Dini di RA Muslimat NU Rowolaku. *Journal Ashil: Jurnal Pendidikan Anak Usia Dini*, 5(1), 1-20. <https://doi.org/10.33367/ashil.v5i1.1578>
- Nofi, A., Rustini T., Wahyuningsih Y. (2019). *Critical Thinking Skills Of Primary School Students In The Subject Of Society In The Higher Class (2022)Development Of Learning Media Through The Prezi Program On Al Qur'an Hadith Subjects At Madrasah Aliyah. Al-Tarbawi Al-Haditsah: Journal of Islamic Education*, 4(1). <https://doi.org/10.17509/mimbar-sd.v6i2.17382>
- Permana, E. P. (2015). Pengembangan Media Pembejaran Boneka Kaus Kaki untuk Meningkatkan Keterampilan Berbicara Siswa Kelas II Sekolah Dasar. *Profesi Pendidikan Dasar*, 2(2), 133–140. <https://doi.org/10.23917/ppd.v2i2.1557>
- Personal, Benny A. (2016). *Design and Development of Competency Based Training Programs for Implementing the ADDIE Model*. Kencana. <https://books.google.co.id/books?id=JHpDwAAQBAJ>
- Puspitarini, YD, & Hanif, M. (2019). *Using Learning Media to Increase Learning Motivation in Elementary School*. *Anatolian Journal of Education*, 4(2), 53-60. <https://doi.org/10.29333/aje.2019.426a>
- Sari, R. T., & Angreni, S. (2018). Penerapan Model Pembelajaran Project Based Learning (PjBL) Upaya Peningkatan Kreativitas Mahasiswa. *Jurnal Varidika*, 30(1), 79–83. <https://doi.org/10.23917/varidika.v30i1.6548>
- Sekar, DKS, Pudjawan, K., & Margunayasa, IG (2015). Science Learning in Class IV Students at Ganesha University of Education. *Ganesha Education University PGSD E-Journal PGSD Department*, 3(1), 11–21. <https://doi.org/10.23887/jjgsd.v3i1.5034>

- Sri Praeni. (2016). Increasing Learning Outcomes In Social Science Learning Basic Material Types Of Jobs Through Experiential Learning Models In Third-Grade Students At Sd Negeri 2 Karangtalun Kidul Purwojati District, Banyumas District, Academic Year 2013/2014. *Academy of Education Journal*. <https://doi.org/10.47200/aoej.v7i2.428>
- Sugiyono. (2017). *Quantitative, Qualitative and R&D Research Methods*. Bandung: Alfabeta. <https://cvalfabeta.com/product/metode-penelitian-kuantitatif-kualitatif-dan-rd-mpkk/>
- Sukmadinata. (2008). *Action Research Method*. Bandung: PT Teen Rosdakarya. <https://rosda.co.id/pendidikan-keguruan/504-metode-penelitian-pendidikan.html>
- Tety Nur Cholifah, Winda Novy Fauziah. (2021). *Development of Scrapbook Media in Thematic Learning to Increase Interest in Learning for Class I Elementary School Students*. *PGSD Journal: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar*. <https://doi.org/10.37150/jpgsd.v5i2.1264>
- Tri Agustina, Tiara Anggia Dewi, Triani Ratnawuri. (2022). *Development Of A Digital Pocket Based On Problem Solving Methods In Economics Subjects*. *EDUNOMIA: Scientific Journal of Economic Education*. <https://doi.org/10.24127/edunomia.v6i1.1928>
- Zafira, H., & Artharina, FP (2017). Development of Thematic Puppet Media on the Theme of the Beauty of My Country to Support the Scientific Approach for Class IV Elementary Schools. *Educational Reflections: Educational Scientific Journal*, 8(1). <https://doi.org/10.24176/re.v8i1.1793>