

DEVELOPMENT OF “BERBUDI” (LEARNING INDONESIAN CULTURE) INTERACTIVE LEARNING MEDIA USING ARTICULATE STORYLINE IN THE IPAS SUBJECT FOR FOURTH-GRADE STUDENTS AT SD NEGERI 2 PURU, TRENGGALEK REGENCY

Anis Ekowati^{1a*}, Ria Fajrin Rizqy Ana^{2b}, and Imam Sukwatus Suja^{1c}

^{1,2,3} Universitas Bhinneka PGRI Tulungagung, Indonesia

^aE-mail: aanisekowati1982@gmail.com

^bE-mail: riafajrin72@gmail.com

^cE-mail: doktorsujai@gmail.com

(*) Corresponding Author

aanisekowati1982@gmail.com

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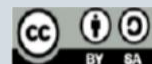
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ABSTRACT

The integration of digital technology in education requires innovative learning media that can present abstract concepts more concretely and interactively. However, IPAS learning on cultural diversity in elementary schools is still predominantly lecture-based, resulting in limited student engagement and suboptimal learning outcomes. Despite the growing use of digital learning tools, studies focusing on interactive media for cultural diversity learning in IPAS at the elementary level remain limited. This study aims to develop and evaluate “Berbudi” interactive learning media based on Articulate Storyline to support cultural diversity learning within the Merdeka Curriculum. This research employed a Research and Development (R&D) approach using the ADDIE model (Analysis, Design, Development, Implementation, Evaluation). The participants were fourth-grade students of SD Negeri 2 Puru, Trenggalek. Data were collected through expert validation sheets, teacher and student response questionnaires, and pre-test and post-test assessments. The results indicate that the Berbudi media is highly valid (92.68%), highly practical based on teacher (95.83%) and student responses (91.67%), and highly effective, with an N-Gain score of 0.72. These findings suggest that Berbudi interactive media contributes as an effective digital learning resource for enhancing students’ understanding of Indonesian cultural diversity in elementary IPAS learning.

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INTRODUCTION

Education in the era of globalization and digitalization requires the integration of technology to support more effective and meaningful learning. The rapid development of information technology has encouraged educational institutions to transform learning practices by incorporating digital tools as interactive learning

resources. Previous studies highlight that digital transformation in education requires pedagogical innovation and curriculum adaptation to strengthen digital literacy among teachers and students (Fernández-Otoya et al., 2024). In primary education, digital literacy is considered a fundamental competency that supports meaningful learning experiences and prepares students for the demands of the 21st century (Izzah et al., 2025; Aprilia, 2025). In Indonesia, these efforts are aligned with national initiatives to enhance digital literacy through education, where primary schools serve as a strategic foundation for introducing the productive and responsible use of technology (Zakiyah et al., 2025).

The implementation of the Merdeka Curriculum emphasizes student-centered learning that accommodates learners' characteristics, interests, and learning contexts. One of its key orientations is strengthening the Pancasila Student Profile, particularly the dimension of global diversity. Consequently, the availability of learning resources that represent Indonesia's cultural diversity is essential for fostering students' awareness and appreciation of diversity.

Within the Merdeka Curriculum framework, the subject of Natural and Social Sciences (IPAS) integrates scientific and social perspectives to help students understand natural phenomena and social-cultural dynamics. At the primary school level, IPAS learning also plays a strategic role in introducing cultural diversity as part of the formation of national identity (Putra & Wulandari, 2023). However, classroom practices often remain dominated by lecture-based instruction and textbook-centered learning, which may limit students' engagement and understanding of cultural diversity topics.

This challenge was observed in IPAS learning at SD Negeri 2 Puru, Trenggalek Regency, where cultural diversity materials from Indonesia's 38 provinces were presented mainly through conventional explanations and static textbooks. Such approaches tend to make the material appear abstract for primary school students, who are at the concrete operational stage and therefore rely on visual and contextual representations to construct understanding (Piaget). Mayer's Cognitive Theory of Multimedia Learning also suggests that learning becomes more effective when information is presented through the integration of words and visual elements (Mayer, 2009). Studies further indicate that interactive multimedia can improve students' engagement and learning outcomes compared to traditional instructional methods (Pratama, 2022).

To address this gap, an interactive learning medium called *Berbudi* (Belajar Budaya Indonesia) was developed using Articulate Storyline. Interactive media are considered effective learning tools because they enable active interaction between users and learning content (Rusman, 2017). The *Berbudi* media integrates text, images, videos, and interactive quizzes to represent the cultural diversity of Indonesia's 38 provinces. Previous studies also show that integrating cultural content into interactive digital media developed with Articulate Storyline can enhance students' cultural literacy and learning motivation (Sari & Dwiningrum, 2021).

Based on this background, this study aims to develop and evaluate the *Berbudi* interactive learning media for fourth-grade IPAS learning. Specifically, the study seeks to: (1) describe the development process of the *Berbudi* media using the ADDIE model; (2) examine its validity based on expert evaluations; (3) analyze its practicality based on teacher and student responses; and (4) measure its effectiveness in improving students' learning outcomes on Indonesian cultural diversity material.

METHOD

This study employed a Research and Development (R&D) approach to develop an interactive learning medium called *Berbudi* (Belajar Budaya Indonesia) using Articulate Storyline. Development research aims to produce an educational product and test its effectiveness (Sugiyono, 2019). The development process followed the ADDIE model consisting of five stages: analysis, design, development, implementation, and evaluation (Dick & Carey, 1996).

The research was conducted at SD Negeri 2 Puru, Trenggalek Regency, involving fourth-grade students in the 2025/2026 academic year. Data were collected through expert validation sheets, teacher and student response questionnaires, and learning outcome tests (pre-test and post-test). Data analysis used descriptive quantitative techniques. Validity and practicality were calculated using percentage scores from Likert-scale responses, with scores above 80% categorized as very valid or very practical. The effectiveness of the media was measured using the Normalized Gain (N-Gain) to determine improvements in learning outcomes:.



Figure 1. ADDIE Model

$$g = \frac{\text{score} - \text{pretest score}}{\text{maksimum scor} - \text{pretest scor}}$$

The effectiveness criteria were determined as follows: an N-Gain value of ≥ 0.7 (High) or $0.3 \leq g < 0.7$ (Moderate).

RESULT

Results of the Development of the “Berbudi” Learning Media

The “Berbudi” learning media was developed through the five stages of the ADDIE model. The final product is an interactive application that can be operated on both computers and Android devices. This media presents content on cultural diversity from 38 provinces in Indonesia, covering traditional houses, traditional clothing, dances, and musical instruments. The material is enriched with voice narration and interactive evaluation quizzes.

The structure of the media is systematically designed, starting from the cover page, main menu, usage instructions, learning outcomes, core learning materials, and evaluation menu. One of the technical advantages of this media lies in the use of state and layer features in Articulate Storyline, which allow cultural objects to change dynamically when interacted with by students. This feature provides an exploratory learning experience, enabling students to select specific provinces on an interactive map of Indonesia and automatically access in-depth information about the unique cultural characteristics of each region without having to navigate through pages linearly.

Furthermore, the multimedia integration in the “Berbudi” media is not limited to text and static images, but also includes video demonstrations of traditional dances and clear audio recordings of traditional musical instruments. The available voice narration supports students with auditory learning styles in better understanding the material, while the interactive quizzes at the end of each session provide immediate feedback in the form of scores and brief explanations. Thus, this media functions not only as a teaching aid for teachers but also as an independent learning tutor that allows students to learn at their own pace (self-paced learning), both inside and outside the classroom.

A more in-depth analysis of learning outcomes indicates that the use of the “Berbudi” media is able to shift students’ learning paradigms from memorization to meaningful understanding. The increase in the N-Gain score to 0.72 is not merely a statistical figure, but rather a reflection of enhanced emotional and cognitive engagement among students. During the implementation process, it was observed that the interactive visualization of 38 provinces stimulated a high level of curiosity. Students tended to ask more questions and engage in discussions when viewing audiovisual representations of unique cultural features, compared to learning solely from textbook-based materials. This finding demonstrates that interactive media serve as a catalyst in creating meaningful learning environments, in line with the principles of the Merdeka Curriculum.

In addition, the success of this development indicates that limitations in learning resources in certain regions can be addressed through appropriate technological innovation. The high validation scores from experts (92.68%) and the positive responses from teachers (95.83%) confirm that media developed using Articulate Storyline meets quality standards and can serve as a model for digital learning media at the elementary school level. This media effectively simplifies the complexity of Indonesia’s vast cultural diversity into a single, concise, and information-rich platform. Therefore, the “Berbudi” media is not only cognitively effective in improving learning outcomes, but also pedagogically effective in fostering global diversity awareness through an immersive digital learning experience.

Media Feasibility (Expert Validation)

The validity of the media was determined through expert validation, with the following results:

Content Expert: Achieved a percentage score of 95.31% (Very Valid), indicating that the material is fully aligned with the learning outcomes of the Merdeka Curriculum. This very high score demonstrates that the content presented in the “Berbudi” media has excellent accuracy and is fully consistent with the Learning Outcomes (CP) and Learning Objectives (TP) stipulated in the Merdeka Curriculum. The content expert assessed that the coverage of cultural diversity across 38 provinces including details of traditional houses, clothing, and regional dances was systematically organized, conceptually accurate, and appropriately matched to the cognitive load of fourth-grade elementary school students without causing misconceptions.

Media Expert: Achieved a percentage score of 86.90% (Very Valid), indicating that the interface design, navigation, and visual quality function very well. This result suggests that the technical and aesthetic aspects of the media developed using Articulate Storyline meet the standards of digital learning media quality. The assessment included an attractive user interface design, intuitive navigation that facilitates easy movement between menus, and clear visual and audio quality. The media expert concluded that the integration of interactive features operates stably and is capable of creating an engaging learning experience for students.

Language Expert: Achieved a percentage score of 95.83% (Very Valid), indicating the use of communicative language appropriate to the developmental level of fourth-grade elementary school students. The combined average validation score was 92.68%, categorizing the “Berbudi” media as Very Feasible. This score confirms that all texts, narrations, and instructions in the “Berbudi” media adhere to proper Indonesian language conventions in accordance with PUEBI. Furthermore, the language expert noted that the vocabulary selection and sentence structures are highly communicative and tailored to the cognitive development level of fourth-grade students, ensuring that information about Indonesia’s cultural richness is conveyed clearly, understandably, and without ambiguity.

Based on the evaluations of the three experts, a combined average validation score of 92.68% was obtained, placing the “Berbudi” media in the Very Feasible category. This cumulative score, which exceeds the standard validity threshold, provides empirical evidence that the developed product meets quality requirements across multiple dimensions, including content accuracy, technical excellence, and appropriate language use. Therefore, the media is deemed ready and credible for broader implementation without the need for major revisions.

Table 4.1. Summary of Expert Validation Results

	<u>Validator</u>	<u>Score</u>	<u>Criteria</u>
<u>Revision</u>	Content Expert	95.31%	Very
	Minor Media Expert		86.90%
Valid			

	Very Valid	None
Language Expert	95.83%	Very Valid Minor

Media Practicality

The practicality test was conducted to determine the ease of use of the “Berbudi” media when implemented directly in classroom settings. Based on teacher response questionnaires, a score of 95.83% was obtained, categorizing the media as Very Practical. Teachers reported that the Articulate Storyline–based media significantly helps improve instructional efficiency, particularly in visualizing the extensive content of cultural diversity across 38 provinces. With this media, teachers no longer face difficulties in sourcing additional teaching aids, as all materials ranging from traditional music audio to visual representations of traditional clothing are integrated into a single, easy-to-use digital platform.

From the perspective of the primary users, the results of large-group trials involving students yielded a score of 91.67%, which also falls into the Very Practical category. Students responded very positively, expressing enjoyment and enthusiasm during the learning process due to the interactive, game-like interface design (game-based learning). Features such as clickable buttons, explorable maps, and quizzes with immediate feedback fostered active student engagement. This demonstrates that the “Berbudi” media successfully transformed a potentially monotonous classroom atmosphere into a more dynamic and engaging learning environment, making independent navigation within the media an enjoyable learning experience rather than a burden.

Another practical advantage of this media lies in its flexible accessibility, which supports students’ independent learning. The integration of information-rich content presented in a concise and user-friendly manner enables the “Berbudi” media to be effectively used both in teacher-guided classroom instruction and in individual learning contexts. The high practicality scores from both teachers and students indicate that the media is not only theoretically valid, but also adaptable to real classroom conditions. This operational ease is a crucial factor in ensuring that the “Berbudi” media can be sustainably implemented in IPAS learning at the elementary school level to support curriculum digitalization.

Effectiveness of the Media on Learning Outcomes

The success of information transmission in learning is highly dependent on the media used as a cognitive bridge. In the context of the IPAS subject, Indonesian cultural material is often abstract and extensive, requiring concrete visualization to facilitate memory retention among elementary school students. The use of the interactive “Berbudi” media developed with Articulate Storyline provides a multisensory learning experience that integrates visual, auditory, and kinesthetic elements through interactive features.

Theoretically, the effectiveness of this media is driven by its ability to enhance student engagement, transforming students from passive listeners into active navigators of their own learning processes. This aligns with the cognitive theory of multimedia learning, which posits that individuals learn more effectively from a combination of words and images than from words alone. The integration of interactive quizzes and immediate feedback in the “Berbudi” media enables instant knowledge reinforcement, ultimately accelerating learning achievement.

The effectiveness of the “Berbudi” media was measured using a One-Group Pretest–Posttest research design, in which students’ abilities were evaluated before and after the use of the media. Based on Table 4.1, the average score increased significantly from 54.2 in the pretest to 87.5 in the posttest, indicating an improvement of 33.3 points after the implementation of the “Berbudi” media.

Table 4.1. Pretest–Posttest Results (Small Group)

No	Students	Pretest	Posttest
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1	R1	25	80
2	R2	80	100
3	R3	90	100
4	R4	55	85
5	R5	15	70
6	R6	60	90
Average	—	54.2	87.5

To further evaluate the magnitude of improvement, the N-Gain analysis for the small group is presented below:

4.2 N-Gain Analysis (Small Group)

No	Name	Pre	Post	Difference	N-Gain	Category
1	R1	25	80	55	0.73	High
2	R2	80	100	20	1.00	High
3	R3	90	100	10	1.00	High
4	R4	55	85	30	0.67	Medium
5	R5	15	70	55	0.65	Medium
6	R6	60	90	30	0.75	High
Average	—	54.2	87.5	33.3	0.80	High

The high level of effectiveness empirically confirms that the “Berbudi” media is an appropriate solution for addressing the abstract nature of Indonesian cultural diversity material. The significant improvement in learning outcomes occurs because students no longer rely solely on rote memorization of text, but instead engage in integrated visual and auditory learning experiences. Thus, the statistical data provide strong evidence that the interactive learning media “Berbudi” is proven to be effective in enhancing mastery of IPAS content and accelerating the achievement of learning objectives mandated by the Merdeka Curriculum at SD Negeri 2 Puru.

Furthermore, the results of the large-group trial are presented as follows:

Table 4.3. Pretest–Posttest Results (Large Group)

No	Students	Pretest	Posttest
1	R1	45	80
2	R2	50	85
3	R3	75	90
4	R4	80	95
5	R5	70	85
6	R6	45	80
7	R7	55	80
8	R8	80	100
9	R9	50	85
10	R10	75	95
11	R11	90	100
12	R12	40	90
13	R13	55	85
14	R14	30	75
15	R15	60	90
16	R16	50	80
17	R17	35	75
18	R18	70	95
19	R19	60	80
20	R20	80	95



21	R21	40	85
22	R22	65	90
23	R23	30	75
24	R24	75	100

Average	—	58.5	87
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The table shows that the average score increased from 58.5 to 87, indicating a gain of 28.5 points. The N-Gain analysis for the large group is presented below:

Table 4.4. N-Gain Analysis (Large Group)

No	Students	Pre	Post	Score Diff.
1	R1	45	80	35
2	R2	50	85	35
3	R3	75	90	15
4	R4	80	95	15
5	R5	70	85	15
6	R6	45	80	35
7	R7	55	80	25
8	R8	80	100	20
9	R9	50	85	35
10	R10	75	95	20
11	R11	90	100	10
12	R12	40	90	50
13	R13	55	85	30
14	R14	30	75	45
15	R15	60	90	30
16	R16	50	80	30
17	R17	35	75	40
18	R18	70	95	25
19	R19	60	80	20
20	R20	80	95	15
21	R21	40	85	45
22	R22	65	90	25
23	R23	30	75	45
24	R24	75	100	25
Average	—	58.5	87	28.5

To assess the quality of this improvement, the Normalized Gain (N-Gain) formula was applied. The analysis revealed an N-Gain value of 0.72, which falls into the High category. This achievement demonstrates that the “Berbudi” media does not merely raise test scores, but also generates substantial and consistent growth in students’ conceptual understanding. An N-Gain value above 0.7 indicates that the media is highly effective in facilitating knowledge transfer, enabling previous learning barriers to be optimally overcome through the multimedia features embedded in the media.

DISCUSSION

The effectiveness of the Berbudi interactive media in improving learning outcomes is closely related to the application of Mayer’s Multimedia Learning Theory, which emphasizes that learning becomes more effective when information is presented through integrated visual and auditory elements (Mayer, 2009). The integration of

images, audio, and interactive navigation in Articulate Storyline provides concrete representations of cultural diversity, which aligns with Piaget's concrete operational stage, where elementary students understand concepts more easily through visual and contextual experiences. Through this approach, abstract descriptions of traditional houses, clothing, and regional music from Indonesia's 38 provinces are transformed into visual and auditory learning experiences that enhance comprehension and information retention.

The findings of this study are consistent with previous research highlighting the effectiveness of interactive multimedia in improving learning outcomes. For instance, Pratama (2022) reported that the use of interactive multimedia in social studies learning significantly improved students' cognitive achievement compared with conventional instruction. Similarly, Sari and Dwiningrum (2021) found that interactive media developed using Articulate Storyline enhanced students' cultural literacy and learning motivation in primary education. The present study supports these findings by demonstrating that interactive media not only increases engagement but also significantly improves learning outcomes, as indicated by the high N-Gain score obtained in this research.

The effectiveness of the *Berbudi* media can also be explained through Edgar Dale's Cone of Experience, which suggests that learning outcomes improve when students are exposed to experiences that closely resemble real situations. Interactive multimedia serves as a simulated learning environment that bridges limitations of space and time by presenting cultural diversity in a more concrete form (Munir, 2012). This finding aligns with research by Hakimah and Gunansyah (2024), which states that the integration of interactive media in elementary education can improve access to authentic learning resources and increase students' engagement in the learning process.

In addition, the interactive design of the *Berbudi* media encourages self-regulated learning, allowing students to explore materials independently through flexible navigation and interactive quizzes. Previous studies indicate that learning media that promote independent exploration positively influence students' cognitive achievement and learning autonomy (Nilawati & Oktavia, 2022; Arikunto, 2021). The immediate feedback provided by quizzes in the *Berbudi* media supports this process by helping students identify and correct misunderstandings during learning.

From a motivational perspective, the effectiveness of the media can also be interpreted through Keller's ARCS Motivation Model, which highlights the importance of attention, relevance, confidence, and satisfaction in sustaining student motivation. The visual design, contextual cultural content, and instant feedback integrated into the *Berbudi* media contribute to maintaining students' attention and confidence while learning cultural diversity materials. Furthermore, the integrated presentation of text, images, and audio helps reduce the split-attention effect, thereby facilitating more efficient cognitive processing (Mayer, 2009; Nurwidayanti & Fajrin, 2025).

Overall, the findings indicate that the *Berbudi* interactive media provides an effective digital learning environment that enhances students' understanding of Indonesian cultural diversity while supporting the implementation of technology-integrated learning in primary education. Beyond improving cognitive learning outcomes, the media also contributes to strengthening students' cultural awareness in line with the objectives of the Merdeka Curriculum, particularly the development of the Pancasila Student Profile in the dimension of global diversity.

CONCLUSION

This study aimed to develop and evaluate the *Berbudi* (Belajar Budaya Indonesia) interactive learning media for fourth-grade IPAS learning using the ADDIE development model. The findings show that the development process was successfully implemented through the stages of analysis, design, development, implementation, and evaluation. The results indicate that the *Berbudi* media met the feasibility criteria. The validity test conducted by material, media, and language experts showed a very high validity level with an average score of 92.68%. The practicality test, based on teacher and student responses, also demonstrated that the media

was highly practical, with response scores exceeding 90%. Furthermore, the effectiveness test revealed a significant improvement in students' learning outcomes, as indicated by an N-Gain score of 0.72, which falls into the high category. These results confirm that the Berbudi interactive media effectively supports students' understanding of Indonesian cultural diversity in IPAS learning. However, this study was limited to one school and focused only on fourth-grade students and a single learning topic. Therefore, further research is recommended to test the media in broader educational contexts.

REFERENCES

- Aprilia, E. F. (2025). Implementing Literacy Culture and Digital Literacy in the Early Grades of Primary School. *Jurnal Review Pendidikan Dasar : Jurnal Kajian Pendidikan Dan Hasil Penelitian*, 11(1), 23–39. <https://doi.org/10.26740/jrpd.v11n1.p23-39>
- Arikunto, S. (2021). *Dasar-Dasar Evaluasi Pendidikan (Edisi 3)*. Jakarta: Bumi Aksara.
- Branch, R. M. (2009). *Instructional Design: The ADDIE Approach*. New York: Springer.
- Fernández-Otoya, F., Cabero-Almenara, J., Pérez-Postigo, G., Bravo, J., Alcázar-Holguin, M. A., & Vilca-Rodríguez, M. (2024). Digital and Information Literacy in Basic-Education Teachers: A Systematic Literature Review. *Education Sciences*, 14(2), 127. <https://doi.org/10.3390/educsci14020127>
- Hakimah, N., Nasution, N., & Gunansyah, G. (2024). Media Pembelajaran IPAS Materi Keragaman Budaya yang dikaitkan dengan Nilai-Nilai Kearifan Lokal di Sekolah Dasar: Tinjauan literature review. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, 9(4), 413–430
- Izzah, A. N., Santoso, A., Kusumaningrum, S. R., Indra Dewi, R. S., & Arifin, S. (2023). The Digital World in The Grasp of Elementary School Children: A Systematic Literature Review of Digital Literacy. *EduHumaniora/ Jurnal Pendidikan Dasar Kampus Cibiru*, 17(2), 149-162. <https://doi.org/10.17509/eh.v17i2.82543>
- Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi. (2022). *Panduan Pembelajaran dan Asesmen Pendidikan Anak Usia Dini, Pendidikan Dasar, dan Pendidikan Menengah*. Jakarta: Kemendikbudristek.
- Mayer, R. E. (2009). *Multimedia Learning (2nd ed.)*. New York: Cambridge University Press.
- Munir. (2021). *Multimedia Interaktif dalam Pendidikan*. Alfabeta.
- Nilawati, R., & Oktavia, L. (2022). Media Pembelajaran Interaktif. *Jurnal Akademika*, 15(1). <https://doi.org/10.53564/akademika.v15i1.845>
- Nurwidayanti, W., Septi, D., Afifah, N., Fajrin, R., & Ana, R. (2025). Gamified Learning Materials: Design And Development Interactive Quiz-Based E-Worksheets For Elementary Students. 03(02), 1–17.
- Piaget, J. (2000). *Science of Education and the Psychology of the Child*. New York: Orion Press.
- Pratama, A. (2022). Efektivitas Multimedia Interaktif dalam Meningkatkan Hasil Belajar IPS Siswa Sekolah Dasar. *Jurnal Inovasi Teknologi Pendidikan*, 9(1), 22-35.
- Putra, A., & Wulandari, S. (2023). Pembelajaran IPAS sebagai Instrumen Pembentukan Identitas Nasional di Sekolah Dasar. *Jurnal Pendidikan Sosial dan Budaya*, 5(3), 310-325.
- Rusman. (2017). *Belajar dan Pembelajaran: Berorientasi Standar Proses Pendidikan*. Jakarta: Kencana.
- Sari, R. K., & Dwiningrum, S. I. A. (2021). Pengembangan Media Pembelajaran Berbasis Articulate Storyline untuk Meningkatkan Literasi Budaya. *Jurnal Teknologi Pendidikan*, 23(2), 112-125.
- Sudijono, A. (2018). *Pengantar Evaluasi Pendidikan*. Jakarta: Rajawali Pers.
- Sugiyono. (2019). *Metode Penelitian Pendidikan: Pendekatan Kuantitatif, Kualitatif, R&D*. Bandung: Alfabeta.
- Zakiah, S. H., Anjelita, R., Khaeriah, N. M., Khoirunnisa, S., & Ratnasari, D. T. (2025). Transformasi Pembelajaran Membaca di Sekolah Dasar Dari Buku Teks Ke Literasi Digital. *Pendas: Jurnal Ilmiah Pendidikan Dasar*, 10(4), 320-333. <https://journal.unpas.ac.id/index.php/pendas/article/view/37817>