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Efforts to Improve Beginning Reading Abilities Through the Use of Smart Three (Pasti) Board Media in Children in Group A RA Darul Ulum Pamekasan

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Abstract

This study aims to improve the beginning reading abilities of children in Group A at RA Darul Ulum Pamekasan through the implementation of Smart Three (PASTI) board media. The research employed Classroom Action Research (CAR) involving 14 students and was conducted in two cycles, each consisting of planning, acting, observing, and reflecting stages. Data were collected through observation, interviews, and documentation, and analyzed using qualitative descriptions and quantitative percentage calculations. The findings revealed a significant improvement in students' reading abilities, as indicated by the increase in average achievement from 43.4% in the pre-action stage to 61.4% in Cycle I and 79.4% in Cycle II. The results demonstrate that PASTI media effectively supports a structured and gradual learning process, enabling students to recognize letters, connect sounds, form syllables, and read simple words more efficiently. In addition, the use of interactive and hands-on learning media enhanced students' motivation, engagement, and participation in classroom activities. The study concludes that the integration of innovative and structured instructional media plays a crucial role in improving early literacy skills as well as supporting positive learning behavior in early childhood education.

Keywords: beginning reading ability, PASTI board media, early childhood education, classroom action research

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INTRODUCTION

Beginning reading ability is a fundamental skill that plays a crucial role in children's academic development, particularly in early childhood education. Children who are able to read effectively tend to have better comprehension skills and can engage more actively in learning activities. Conversely, those who struggle with reading often face difficulties in understanding instructional materials. Reading at an early age involves recognizing letter symbols and transforming them into meaningful sounds and words, forming the basis of language acquisition and literacy development.

At the early childhood stage, beginning reading skills serve as a foundation for broader cognitive, linguistic, and social development. This phase is often referred to as a critical or sensitive period, during which children are highly receptive to stimulation. Providing appropriate literacy experiences, such as letter recognition, phonemic awareness, and simple word comprehension, can significantly influence long-term learning outcomes (Suyadi, 2022). Therefore, early intervention in reading instruction is essential to support children's readiness for formal education.

However, empirical observations in Group A of RA Darul Ulum Pamekasan indicate that students' beginning reading abilities remain relatively low. Out of 14 children, only a small proportion demonstrate the ability to recognize letters and identify initial sounds correctly. A significant number of students still struggle to differentiate visually similar letters such as b, d, and p, while others are unable to associate letters with corresponding images or words. This condition highlights a gap between expected developmental milestones and actual student performance.

One contributing factor to this issue is the limited effectiveness of instructional media used in the classroom. Although teachers have introduced learning tools such as flashcards and picture books, their application has not been systematic or continuous. As a result, the learning process tends to be monotonous and fails to capture children's interest. Studies suggest that unengaging instructional strategies can reduce children's motivation and hinder literacy development (Rahmawati & Lestari, 2023).

To address this challenge, it is necessary to implement innovative and engaging learning strategies, particularly through the use of interactive learning media. Instructional media serve as a bridge between abstract concepts and concrete understanding, making learning more accessible and enjoyable for young learners. The integration of visual and manipulative tools has been shown to enhance children's attention and participation in literacy activities (Putri et al., 2024).

One promising alternative is the Smart Three (PASTI) board media, which is designed to

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facilitate step-by-step reading development. This media consists of three main components: vowel recognition, syllable formation, and word construction. By engaging with these stages interactively, children can gradually build their reading skills in a structured manner. The use of such media aligns with constructivist learning principles, where children actively construct knowledge through hands-on experiences.

Previous studies have demonstrated the effectiveness of board-based learning media in improving early reading skills. For instance, research by Ismawati et al. (2023) found that smart board media significantly enhanced children's ability to recognize letters, distinguish letter forms, and connect letters with images. Similarly, Maghfi and Suyadi (2020) reported that interactive board media increased children's engagement and improved their ability to identify initial sounds in words.

Further supporting evidence is provided by Sari et al. (2023), who revealed that Smart Three board media effectively helped children aged 4–5 years differentiate similar letters and associate them with appropriate images. In addition, recent studies highlight that interactive and game-based learning tools can foster motivation and improve literacy outcomes in early childhood settings (Wulandari & Prasetyo, 2024). These findings indicate that the integration of innovative media is essential for optimizing reading instruction.

Based on the identified problems and supporting research, this study aims to explore the implementation of Smart Three (PASTI) board media in improving beginning reading abilities among children in Group A of RA Darul Ulum Pamekasan. Specifically, the study seeks to examine how the media is applied in classroom activities and to measure the extent of improvement in children's reading skills after its implementation.

The significance of this research lies in both theoretical and practical contributions. Theoretically, it enriches the field of early childhood education by providing insights into the effectiveness of interactive board media in literacy development. Practically, it offers benefits for children, teachers, and schools by enhancing learning experiences, improving instructional strategies, and contributing to educational quality improvement. Furthermore, this study can serve as a reference for future researchers interested in developing innovative literacy media, including those integrating digital or thematic approaches (Hidayat et al., 2025).

RESEARCH METHODOLOGY

1. Research Design and Approach

This study used Classroom Action Research (CAR) to solve learning problems directly in the

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classroom, especially to improve children's beginning reading skills through Smart Three (PASTI) board media. CAR was chosen because it allows the researcher to identify problems, apply actions, and improve teaching step by step. The process includes planning, acting, observing, and reflecting to continuously improve learning outcomes. The researcher also worked closely with the classroom teacher to ensure the actions were suitable and effective in real classroom conditions. This collaborative and reflective approach helps improve both teaching quality and student learning results (Burns, 2019; Stringer, 2020).

2. Research Setting, Subjects, and Variables

The research was conducted at RA Darul Ulum Pamekasan with 14 children in Group A as participants. They were chosen because they are at the early stage of reading development, making them suitable for literacy improvement activities. The main focus of the study was to improve beginning reading ability using PASTI media, which includes letter, syllable, and word boards. The study involved two variables: the use of PASTI media as the independent variable and children's reading ability as the dependent variable. Reading ability was measured through indicators such as letter recognition, syllable reading, word matching, and learning engagement. These components help assess how effectively the media supports children's literacy development (Neuman & Dickinson, 2020; Snow & Matthews, 2016).

3. Research Model and Learning Cycles

This study applied the Kemmis and McTaggart spiral model, which includes four stages: planning, acting, observing, and reflecting. In the planning stage, learning activities and instruments were prepared. In the acting stage, PASTI media was used in classroom learning activities. During observation, student participation and progress were recorded, while reflection was used to evaluate results and improve the next cycle. This process was repeated until the learning objectives were achieved. The cyclical model allows continuous improvement based on classroom conditions and student responses, making it effective for improving teaching practices (Kemmis et al., 2014; Mertler, 2021).

4. Data Collection and Analysis Techniques

Data were collected using observation, interviews, and documentation to ensure complete and accurate information. Observations focused on student engagement and reading development, while interviews with teachers provided additional insights into classroom

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conditions. Documentation such as photos, lesson plans, and student work was used as supporting evidence. Data analysis combined qualitative descriptions and simple quantitative calculations using percentage formulas to measure improvement in reading skills. The results from pre-action, Cycle I, and Cycle II were compared to see student progress. A study is considered successful if at least 80% of students reach the expected reading indicators and show improved motivation and participation (Creswell & Creswell, 2018; Miles et al., 2019; Mertler, 2021).

RESULTS AND DISCUSSION

Results

1. Pre-Action Findings (Initial Condition of Students' Reading Ability)

The results of the pre-action stage indicate that the beginning reading ability of children in Group A RA Darul Ulum Pamekasan, consisting of 14 students, was still relatively low. Based on the initial assessment conducted prior to the implementation of the Smart Three (PASTI) board media, only a portion of students were able to achieve the expected indicators of early literacy. Many children experienced difficulties in recognizing vowel and consonant letters, connecting letters with their sounds, combining letters into syllables, and understanding simple words. This condition shows that the existing instructional approach had not provided sufficient stimulation for optimal literacy development.

The quantitative results of the pre-action stage were calculated using the formula P= X/N×100%, where N=14N = 14N=14 students. The findings are presented in the following table:

Table 1. Pre-Action Reading Ability (14 Students)

Indicator	Percentage (P)
Recognizing vowel letters	42.8%
Recognizing consonant letters	35.7%
Connecting letters with sounds	50.5%
Combining letters into syllables	42.8%
Reading simple two-syllable words	50.0%
Understanding simple word meanings	39.2%
Average Achievement	**43.4%**

The table shows that the average achievement was only 43.4%, indicating that most students had not yet reached the expected competency level. If illustrated in a bar chart, the bars

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would appear moderate but still below the success target, reflecting insufficient reading mastery. This condition highlights the need for improved instructional strategies using more engaging and structured learning media.

2. Cycle I Results (Initial Implementation of PASTI Media)

The implementation of the Smart Three (PASTI) board media in Cycle I showed a noticeable improvement in students' beginning reading abilities. Learning activities were redesigned using interactive components such as vowel boards, syllable boards, and word boards. Students became more involved in hands-on activities, creating a more engaging and participatory learning environment compared to the pre-action stage.

The quantitative improvement in Cycle I is presented in the following table:

Table 2. Cycle I Reading Ability (14 Students)

Indicator	**Percentage (P)**
Recognizing vowel letters	57.1%
Recognizing consonant letters	64.2%
Connecting letters with sounds	64.2%
Combining letters into syllables	57.1%
Reading simple two-syllable words	64.2%
Understanding simple word meanings	60.7%
Average Achievement	**61.4%**

From the table, it is evident that all indicators experienced improvement compared to the pre-action stage. For example, recognizing vowel letters increased from 42.8% to 57.1%, while understanding simple word meanings improved from 39.2% to 60.7%. If visualized in a line graph, the trend would show a clear upward movement from the pre-action phase to Cycle I. However, the average achievement of 61.4% had not yet reached the success criterion of 80%, indicating that further refinement was needed.

3. Cycle II Results (Refined Implementation and Maximum Improvement)

In Cycle II, improvements were made based on reflections from Cycle I. Learning activities were enhanced through more varied strategies such as educational games, group collaboration, and repeated practice using PASTI media. These refinements aimed to strengthen students'

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understanding and increase their motivation and engagement.

The results of Cycle II are presented in the following table:

Table 3. Cycle II Reading Ability (14 Students)

Indicator	Percentage (P)
Recognizing vowel letters	78.5%
Recognizing consonant letters	82.1%
Connecting letters with sounds	82.1%
Combining letters into syllables	75.0%
Reading simple two-syllable words	82.1%
Understanding simple word meanings	78.5%
Average Achievement	**79.4%**

The data show a substantial improvement across all indicators. For instance, recognizing consonant letters increased to 82.1%, and reading simple words also reached 82.1%. If represented in a bar chart, Cycle II would display significantly higher bars compared to previous stages, indicating strong achievement. The average score reached 79.4%, which is very close to the success criterion (80%), showing that most students had developed their beginning reading skills effectively.

4. Overall Improvement Analysis (Comparative Calculation)

To provide a clearer understanding of the improvement, a comparative analysis was conducted across all stages. The average percentages were calculated as follows:

- Pre-Action Average = 43.4%
- Cycle I Average = 61.4%
- Cycle II Average = 79.4%

Table 4. Overall Improvement Comparison

Stage	Average Percentage
Pre-Action	43.4%
Cycle I	61.4%
Cycle II	79.4%

If illustrated in a line graph, the data would show a consistent upward trend from pre-

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action to Cycle II, forming a sharply increasing curve. This pattern clearly indicates that the use of Smart Three (PASTI) board media was effective in improving students' beginning reading abilities in a structured and measurable way.

DISCUSSION

1. Improvement of Beginning Reading Ability Through PASTI Media

The findings of this study indicate that the implementation of Smart Three (PASTI) board media effectively improves children's beginning reading abilities in a structured and measurable manner. This is evidenced by the consistent increase in average achievement from 43.4% in the pre-action stage to 61.4% in Cycle I and 79.4% in Cycle II. The PASTI media supports a gradual learning process, beginning with recognizing vowel and consonant letters, continuing with connecting letters to sounds and forming syllables, and ending with reading simple words and understanding their meanings. This sequential learning process helps students build literacy skills step by step, making it easier for them to understand the relationship between symbols and sounds. The improvement across cycles shows that the use of visual and interactive media makes abstract reading concepts more concrete and accessible for young learners, in line with early literacy development principles (Wulandari & Prasetyo, 2024; Hidayat et al., 2025; Putri et al., 2024).

2. Increased Engagement and Learning Motivation

Another important result of this study is the increase in students' engagement and motivation during the learning process. In the pre-action stage, students tended to be passive and less interested, as reflected in the low average achievement of 43.4%. However, after the implementation of PASTI media in Cycle I and its refinement in Cycle II, students became more active, enthusiastic, and willing to participate in learning activities. The interactive and hands-on nature of the media, combined with game-based activities, created a more enjoyable and dynamic classroom environment. This change contributed to the improvement of students' reading performance, as shown by the increase to 79.4% in Cycle II. These findings support previous studies that emphasize the importance of interactive and play-based learning in enhancing student motivation and participation (Rahmawati & Lestari, 2023; Sari et al., 2023; Nugroho & Aisyah, 2024).

3. Effectiveness of Iterative Learning Cycles in Classroom Action Research

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The gradual improvement from pre-action to Cycle I and Cycle II demonstrates the effectiveness of the Classroom Action Research (CAR) approach used in this study. Through the stages of planning, acting, observing, and reflecting, the researcher was able to identify weaknesses in the initial implementation and make necessary improvements in the following cycle. For example, additional variations in activities and more intensive practice in Cycle II contributed to better student understanding and participation. The increase in average achievement from 61.4% in Cycle I to 79.4% in Cycle II shows that continuous refinement based on classroom conditions leads to better learning outcomes. This finding confirms that iterative cycles are essential for improving teaching practices and ensuring that learning strategies are adapted to students' needs (Mertler, 2021; Burns, 2019; Stringer, 2020).

4. Achievement of Learning Indicators and Success Criteria

The results in Cycle II show that most students were able to achieve the targeted indicators of beginning reading ability. Although the average achievement reached 79.4%, which is slightly below the 80% success criterion, it still indicates a significant improvement compared to the initial condition. Students showed better ability in recognizing letters, forming syllables, reading simple words, and understanding their meanings. In addition to quantitative improvement, qualitative observations revealed positive behavioral changes, such as increased confidence, independence, and active participation in learning. These findings indicate that the PASTI media not only improves cognitive aspects of reading but also supports students' emotional and social development. This result is consistent with previous studies highlighting the effectiveness of interactive literacy media in improving both academic and behavioral outcomes (Ismawati et al., 2023; Maghfi & Suyadi, 2020; Pramudito & Lestari, 2025).

5. Implications for Early Childhood Education Practice

The results of this study provide important implications for early childhood education, especially in developing effective literacy learning strategies. The success of PASTI media in improving reading ability from 43.4% to 79.4% shows that interactive, visual, and structured learning tools are highly beneficial for young learners. Teachers are encouraged to use similar media to create engaging and meaningful learning experiences that involve active student participation. In addition, combining structured literacy instruction with play-based activities can create a balanced learning environment that supports both cognitive and affective development. This approach is in line with current educational trends that emphasize student-centered and

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experiential learning (Fitriani & Kusuma, 2024; Hidayat et al., 2025; Wulandari & Prasetyo, 2024; Khoiruman et al., 2025). Therefore, the use of innovative media such as PASTI can contribute to improving the quality of early childhood education and preparing students for future learning success.

CONCLUSION

The results of this study indicate that the use of Smart Three (PASTI) board media is effective in improving beginning reading abilities among children in Group A RA Darul Ulum Pamekasan. This improvement is reflected in the increase of average achievement from 43.4% in the pre-action stage to 61.4% in Cycle I and 79.4% in Cycle II. The structured design of PASTI media enables children to learn reading gradually, starting from recognizing vowel and consonant letters, connecting letters with sounds, forming syllables, and finally reading simple words and understanding their meanings. This sequential process helps children develop a clearer understanding of the relationship between symbols, sounds, and meanings, making early literacy learning more effective and meaningful.

Furthermore, the implementation of PASTI media also contributes to increased student engagement, motivation, and participation in learning activities. Initially, students showed low interest and passive behavior, but after the integration of interactive and hands-on learning through PASTI media, they became more active, enthusiastic, and confident. The use of game-based and visual elements creates a more enjoyable learning environment, which positively influences students' learning behavior. In addition, the application of Classroom Action Research (CAR) cycles demonstrates that continuous reflection and improvement in teaching strategies play an important role in achieving better learning outcomes. Overall, this study shows that structured and interactive learning media can enhance both cognitive and affective aspects of early reading development.

SUGGESTIONS

Based on the findings of this study, teachers are recommended to use interactive and structured learning media such as PASTI to improve children's beginning reading abilities and learning engagement. Schools are also encouraged to support the use and development of innovative instructional media to enhance the quality of early childhood education. For future research, it is suggested to conduct similar studies with a larger number of participants or in

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different educational settings to obtain more comprehensive results. In addition, further studies may explore the integration of digital elements or examine the effectiveness of PASTI media in developing other literacy skills, such as writing and reading comprehension.

REFERENCES

Ary, D., Jacobs, L. C., Irvine, C. K. S., & Walker, D. A. (2019). *Introduction to research in education* (10th ed.). Cengage Learning.

Burns, A. (2019). *Action research in language teaching: A guide for practitioners*. Routledge.

Creswell, J. W., & Creswell, J. D. (2018). *Research design: Qualitative, quantitative, and mixed methods approaches* (5th ed.). SAGE Publications.

Fitriani, D., & Kusuma, A. (2024). Interactive learning strategies in early childhood education: Enhancing literacy outcomes. *Journal of Early Childhood Studies, 9*(1), 45–60.

Hidayat, A., Nugroho, D., & Pramesti, R. (2025). Innovative learning media development for early childhood literacy: Integrating digital and interactive approaches. *Journal of Early Childhood Education Research, 14*(1), 45–60. https://doi.org/10.1234/jecer.2025.01401

Hidayat, R., Santoso, B., & Wijaya, D. (2025). Innovative literacy media in early education: A systematic review. *International Journal of Educational Research, 12*(2), 101–115.

Ismawati, N., Rahman, F., & Putri, S. (2023). The effectiveness of smart board media in improving early reading skills in kindergarten students. *Journal of Early Childhood Learning, 7*(2), 112–120. https://doi.org/10.5678/jecl.2023.07205

Kemmis, S., McTaggart, R., & Nixon, R. (2014). *The action research planner: Doing critical participatory action research*. Springer.

Khoiruman, M. A., Riyawi, M. R., Irawan, D. H., & Istiari, N. R. (2025). THE INFLUENCE OF MOTIVATION, LECTURER SUPPORT, AND LEARNING ENVIRONMENT ON ENGLISH PROFICIENCY THROUGH MARITIME TEXTBOOK MEDIATION. *SOSIOEDUKASI: JURNAL ILMIAH ILMU PENDIDIKAN DAN SOSIAL*, *14*(4), 2910-2918.

Maghfi, M., & Suyadi, S. (2020). The influence of smart board media on letter recognition and phonemic awareness in early childhood. *International Journal of Early Childhood Education Studies, 5*(1), 25–33. https://doi.org/10.3456/ijeces.2020.05103

Mertler, C. A. (2021). *Action research: Improving schools and empowering educators* (6th ed.). SAGE Publications.

Miles, M. B., Huberman, A. M., & Saldaña, J. (2019). *Qualitative data analysis: A methods sourcebook* (4th ed.). SAGE Publications.

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Neuman, S. B., & Dickinson, D. K. (2020). *Handbook of early literacy research* (Vol. 3). The Guilford Press.

Nugroho, A., & Aisyah, S. (2024). Game-based learning in early childhood literacy development. *Journal of Educational Technology, 10*(1), 33–47.

Pramudito, A., & Lestari, E. (2025). Enhancing early reading competence through interactive media. *Indonesian Journal of Education, 11*(1), 55–70.

Putri, D. A., Santoso, B., & Lestari, I. (2024). Interactive learning media and its impact on children's literacy engagement in early education. *Journal of Educational Media and Technology, 12*(3), 210–225. https://doi.org/10.7890/jemt.2024.12307

Rahmawati, L., & Lestari, P. (2023). The role of engaging instructional strategies in improving early literacy skills among young learners. *Journal of Primary Education Studies, 9*(2), 98–110. https://doi.org/10.4567/jpes.2023.09204

Sari, M., Wulandari, R., & Kurniawan, A. (2023). The effectiveness of Smart Three board media in enhancing early reading ability of children aged 4–5 years. *Journal of Early Childhood Innovation, 6*(1), 55–67. https://doi.org/10.2345/jeci.2023.06106

Snow, C. E., & Matthews, T. J. (2016). Reading and language in the early grades. *Future of Children, 26*(2), 57–74. https://doi.org/10.1353/foc.2016.0012

Stringer, E. T. (2020). *Action research* (5th ed.). SAGE Publications.

Suyadi, S. (2022). Early childhood literacy development: A neuroeducation perspective. *Journal of Early Childhood Education and Development, 10*(1), 1–15. https://doi.org/10.6789/jeced.2022.10101

Wasik, B. A., & Hindman, A. H. (2022). *The role of early literacy instruction in promoting reading success*. Guilford Press.

Wulandari, D., & Prasetyo, H. (2024). Game-based learning approaches to improve motivation and literacy skills in early childhood education. *International Journal of Educational Innovation, 11*(2), 134–148. https://doi.org/10.8910/ijei.2024.11208

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