

## The Effectiveness of Local Banjar Board Media in Enhancing Letter Recognition in Children Aged 5–6 Years

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### ABSTRACT

Early literacy development, particularly letter recognition, plays a crucial role in forming reading readiness in early childhood. This study aimed to examine the effectiveness of the Banjar Local Board Media in improving letter-recognition skills among children aged 5–6 years. This experimental research employed a one-group pretest–posttest design involving 17 kindergarten children at TK Perjuangan Bunda, Tabalong, Indonesia. Data were collected using a 27-item letter-recognition test measuring the ability to identify letter shapes, associate letters with sounds, and the form of simple written letters. The treatment consisted of four learning sessions integrating Banjar cultural elements through picture–letter associations, phonological activities, and interactive board manipulation. The data were analyzed using descriptive statistics and paired t-test to determine significant differences between pretest and posttest scores. Findings revealed a substantial increase in children's letter-recognition ability, demonstrated by a rise in average scores from 51 (pretest) to 77 (posttest), indicating a 43.3% improvement after the intervention. These results suggest that integrating cultural-based media provides meaningful and enjoyable learning experiences that effectively enhance early literacy competencies. The study contributes to the literature on culturally responsive teaching in early childhood education and emphasizes the relevance of local wisdom in strengthening learning engagement and outcomes. Future research is advised to involve larger samples and employ comparative experimental designs to broaden generalization and strengthen evidence of effectiveness.

**Keywords:** Early Literacy, Letter Recognition, Local Wisdom, Banjar Culture, Learning Media, Early Childhood Education.

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## INTRODUCTION

Letter recognition (alphabet knowledge) is one of the fundamental early skills in early childhood literacy development. The ability to recognize letter shapes and associate them with sounds is a strong predictor of later reading and writing development; several meta-reviews and empirical studies have shown that alphabetic knowledge is a hallmark of

early literacy skills and is closely related to reading success in elementary school.(Rohman et al., 2022; Slow et al., 2023).

In early childhood education (PAUD) settings, strengthening letter recognition skills needs to be done through a meaningful, fun, and contextual learning approach. Alphabet learning media (e.g., alphabet books, interactive alphabet boards, audio-visual media) have been shown to improve letter recognition skills when designed according to age characteristics and using multisensory activities involving visual, auditory, and fine motor manipulation. Several field studies have reported significant improvements in letter recognition skills after structured alphabet media interventions.(Adiartika et al., 2020; Alfionita et al., 2022; Rita Kusumah & Anisya, 2024).

In Indonesia, a learning approach that integrates local wisdom has become an important direction in efforts to make learning more contextual, preserve local culture, and increase interest and relevance for students. Local wisdom-based learning materials have been reported to be effective in increasing motivation, engagement, and conceptual understanding in early childhood and elementary school students, while also supporting cultural preservation. Integrating local cultural elements into learning materials is also thought to strengthen cultural identity and the appeal of the materials to children.(Wahyuni, 2024).

The cultural context of Banjar (South Kalimantan) presents a rich local resource, including songs, stories, oral traditions, flora/fauna vocabulary, and visual symbols that can be used as basic materials for developing learning media. Studies related to Banjar local wisdom confirm the existence of cultural content that has the potential to be adapted as a teaching resource for various learning materials, including early literacy. However, although there are studies describing Banjar values as learning materials, few quantitative studies have empirically evaluated the effectiveness of learning media based on Banjar local wisdom, especially for letter recognition in kindergarten-aged children.

In early childhood education practice, real challenges also arise in the design of age-appropriate media, the validity of assessment instruments, and empirical evidence of effectiveness. Several R&D (research and development) studies have shown that local wisdom-based media can be systematically developed (e.g., the ADDIE model, 4D) and tested for both feasibility and effectiveness; however, methodological variations and small sample sizes often limit the generalizability of the findings. In other words, there is a need for studies that combine a rigorous media development approach (content and construct validity) and effectiveness evaluation using robust quantitative analysis.(Laura et al., 2024).

Based on the description, the development of Banjar Local Board Media as an aid for letter recognition in children aged 5–6 years promises two scientific and practical contributions: (1) offering contextual and culturally-specific learning media that are relevant to children and communities, and (2) providing empirical evidence regarding the effectiveness of the media in achieving letter recognition. To meet the scientific standards and validity of the results required by internationally reputable journals, a research design is required that combines rigorous R&D procedures (e.g., expert validation, field trials) and

appropriate statistical analysis (e.g., pretest–posttest effectiveness tests, effect/differentiation analysis between subgroups). (Ristianti & Sari, 2024).

Therefore, this study aims to examine the effectiveness of Banjar Local Board Media in improving letter recognition skills in children aged 5–6 years at Perjuangan Bunda Kindergarten. The research is directed at (1) designing and validating media based on instructional development principles appropriate for PAUD, (2) implementing the media in a classroom setting, and (3) measuring changes in letter recognition skills using reliable and valid instruments. The findings are expected to contribute to the literature on early childhood literacy, local wisdom-based learning practices in Indonesia, and policy implications for developing contextual teaching materials in PAUD.

## **METHOD**

This study used an experimental approach with a pretest–posttest one-group experimental design to test the effectiveness of Banjar Local Board Media in improving the letter recognition skills of children aged 5–6 years. This design was chosen because it allows researchers to compare initial abilities (pretest) and final abilities (posttest) after treatment is given to the same group, so that the changes that occur can be attributed to the learning intervention using the media. The experimental approach is appropriate for the purpose of this study because the main focus is to test the effect of Banjar local learning media on children's early literacy competencies in educationally controlled conditions.

The study population was all children in group B (aged 5–6 years) at Perjuangan Bunda Kindergarten, Tabalong Regency, South Kalimantan in the 2024/2025 academic year. The study sample consisted of 17 children who participated in the full learning process. The sampling technique used purposive sampling, with the following inclusion criteria: (1) aged 5–6 years, (2) participating in learning activities regularly, and (3) not having developmental disabilities that could interfere with the test. Purposive selection was carried out to ensure that the subjects matched the characteristics of the early childhood literacy development targets.

Quantitative data were analyzed using descriptive statistics (mean, percentage change) and paired t-tests to test the significance of differences between pretest and posttest scores. This analysis was conducted to determine whether the media significantly influenced letter recognition improvement. Furthermore, observational data were analyzed qualitatively and descriptively to provide contextual explanations regarding the media's effectiveness in learning.

## **FINDING AND DISCUSSION**

This stage aims to test the media's effectiveness in real-life learning situations and identify areas for improvement before wider distribution. After the Banjar Local Board media was deemed suitable by experts, a limited trial was conducted at Perjuangan Bunda Kindergarten to determine its effectiveness in improving letter recognition in early childhood. This trial involved 17 children in Group B (aged 5–6) and was conducted in four 45-minute learning sessions.

Before implementing the media, a pretest was conducted to measure the children's initial letter recognition abilities. After four learning sessions, a posttest was conducted to assess the children's improvement after using the Banjar Local Board.

a. Pretest

Before using the Banjar Local Board, a pretest was conducted to measure the children's initial letter recognition skills. This pretest consisted of 27 questions covering letter recognition, letter pronunciation, and letter association with Banjarese words. Each child was given time to answer the questions in both verbal and visual formats.

Based on the pretest results, it was found that the majority of children still had difficulty recognizing letters. Of the 17 children tested, only 6 (35.3%) achieved scores above 60%. This indicates that most children still need additional stimulation in learning letter recognition.

**Table 1 Pretest Results**

No	Child's Name	Pretest Score	Category
1	AA	40	Not enough
2	BB	55	Not enough
3	CC	50	Not enough
4	DD	65	Enough
5	EE	30	Not enough
6	FF	45	Not enough
7	GG	70	Enough
8	HH	25	Not enough
9	II	60	Enough
10	JJ	50	Not enough
11	KK	40	Not enough
12	LL	75	Good
13	MM	35	Not enough
14	NN	80	Good
15	OO	30	Not enough
16	PP	55	Not enough
17	QQ	70	Enough
<b>Average</b>		<b>51</b>	<b>Not enough</b>

b. Banjar Local Board Media Implementation Activities

In the trial use of the Banjar Local Board, learning was divided into three main stages: opening activities, core activities, and closing activities. Each learning session lasted 45 minutes, with the teacher acting as a facilitator and the children given the opportunity to interact directly with the media.

The lesson begins with an opening activity to build enthusiasm before moving on to the main lesson. The teacher invites the children to gather in a circle and engages in a

light discussion about the letters they have already learned. The teacher also poses lead questions such as:

- *"Who can name the letter A?"*
- *"What letter is at the beginning of your name?"*

After that, the teacher introduced the Banjar Local Board as a new medium that would be used in learning. The teacher shows the board and asks the children about the pictures on the board, such as:

- *"Who knows this picture?"* (While pointing to the Ampik picture for the letter A)
- *"How do you say this word in Banjarese?"*

This opening activity aims to build children's curiosity and prepare them for more interactive learning sessions.

Once the children became increasingly interested in the media, the activity continued with the main activity, where they began interacting directly with the Banjar Local Board. The teacher divided the children into small groups to give each child the opportunity to actively participate. The main activity consisted of several activities, namely:

1) Recognizing Letters with Picture Association

The teacher asks the children to choose a letter from the available letters and match it to the corresponding picture on the board. For example, a child holding the letter "B" must find the correct place on the board and say the word in Banjarese, such as "B for Bakantan."

2) Word Game

The children were asked to arrange the letters on the board to form simple words in the Banjar language. For example, they arranged the letters AMPIK to form Ampik (a traditional Banjar food). The teacher then helped the children pronounce the word correctly.

3) Guess the Letters and Words

The teacher plays a guess-the-letter game, where children are asked to guess the letter the teacher says by placing it on the board. The teacher also provides sound-based clues, such as:

*"I have a picture of a yellow fruit with spiky skin. The first letter is C. What letter is that?"* (Answer: Cempedak)

4) Practicing Phonemes and Letter Pronunciation

After the children have successfully placed the letters on the board, the teacher asks them to say the letters aloud. This activity helps develop children's phonological skills and boosts their confidence in recognizing letters.

In this core activity, the children were enthusiastic and actively participated. They not only learned to recognize letters but also gained a deeper understanding of Banjarese vocabulary used in everyday life.

At the end of the session, the teacher invites the children to reflect together about what they have learned. The teacher asks the children:

"What letter do you like the most today?"

"What new words did you learn from the Banjar Local Board?"

Afterward, the teacher reinforced the concepts by repeating some of the letters they had learned, and acknowledged the children's efforts with praise and encouragement. The teacher also invited the children to sing along with the Banjarese alphabet song to make learning more enjoyable.

In closing, the teacher gave the children a few minutes to explore the media freely before concluding the session. She also reminded them that in the next meeting, they would use the Banjar Local Board again for a more engaging game.

With this learning structure, the use of the Banjar Local Board in letter recognition becomes more focused, fun, and effective, and is able to increase children's involvement in the learning process.

After four learning sessions, a posttest was conducted to assess the children's letter recognition skills. The posttest used the same instrument as the pretest (27 questions) to ensure the consistency of the results.

Based on the posttest results, there was a significant increase in letter recognition. Twelve children (70.6%) achieved scores above 60%, indicating improved abilities after using the media.

#### c. Posts

After four learning sessions, a posttest was conducted to assess the children's letter recognition skills. The posttest used the same instrument as the pretest (27 questions) to ensure the consistency of the results.

Based on the posttest results, there was a significant increase in letter recognition. Twelve children (70.6%) achieved scores above 60%, indicating improved abilities after using the media.

**Table 2 Posttest Results**

No	Child's Name	Posttest Score	Category
1	A A	65	Enough
2	BB	75	Good
3	CC	70	Enough
4	DD	80	Good
5	EE	71	Enough
6	FF	58	Good
7	GG	82	Good
8	HH	80	Not enough
9	II	85	Good
10	JJ	84	Good
11	KK	83	Enough
12	LL	86	Very good
13	MM	84	Enough

<b>14</b>	NN	58	Very good
<b>15</b>	OO	83	Not enough
<b>16</b>	PP	88	Enough
<b>17</b>	QQ	75	Good
<b>Average</b>		<b>77</b>	<b>Good</b>

The summary of results shows that the Banjar Local Board media has a positive impact on improving early childhood letter recognition. This media was able to increase children's letter recognition skills by up to 43.3% in four learning sessions.

Based on the results of this trial, it can be concluded that the Banjar Local Board is effective in improving letter recognition in Perjuangan Bunda Kindergarten children. This medium successfully captured children's interest, increased their engagement, and demonstrated better learning outcomes than conventional methods.

## Discussion

The results of this study indicate that the use of Banjar Local Board Media is effective in improving letter recognition skills in early childhood at Perjuangan Bunda Kindergarten. This finding aligns with research conducted by (Sar baitinil et al., 2024) which shows that interactive media based on local culture can improve children's memory in recognizing letters. Furthermore, Silverman & Hines (2019) also emphasized that media involving visual and kinesthetic elements can increase the effectiveness of early literacy learning. However, this study differs from Pratama's (2022) study, which focused more on the use of digital application-based media. The results of this study indicate that physical media based on local wisdom can also have a significant impact on early childhood literacy development, especially in areas that lack widespread access to digital technology. (Pratama & Ratna, 2022).

Furthermore, Piaget's theory on the stages of cognitive development in early childhood, which states that children in the preoperational stage learn through physical interaction with their environment (Piaget, 1964), also supports the findings of this study. By using the Banjar Local Board, children can actively manipulate letters, see images, and associate them with their everyday language, which is in accordance with the principles of constructivist learning.

## CONCLUSION

This study proves that the use of Banjar Local Board Media is effective in improving letter recognition skills in children aged 5–6 years at Perjuangan Bunda Kindergarten. The increase in scores from pretest to posttest indicates that local culture-based media is able to provide more meaningful visual, motor, and linguistic stimulation, so that children are easier to recognize letter shapes, connect them with sounds, and write letters more

accurately. These results confirm that learning integrated with regional cultural elements not only strengthens early literacy competencies but also increases learning motivation and children's closeness to the cultural identity of their environment.

Theoretically, this research contributes to the study of early literacy and local wisdom-based learning innovation by demonstrating that a culture-based approach can be an effective pedagogical strategy in early childhood education. Practically, the results can serve as a reference for early childhood education teachers developing contextual and engaging learning media, and for educational institutions integrating local culture into curriculum and teaching materials development.

However, this study was conducted on a limited sample and within a single institutional context, so the generalizability of the results requires further testing. Therefore, future research is recommended to involve a larger number of participants, use an experimental design with a control group, and evaluate the impact of media over a longer period. Further research could also explore the integration of technology or digital media based on local culture as an alternative innovation in literacy learning for early childhood. With continued development, the Banjar Local Board Media could become a model for culture-based thematic learning that supports the achievement of Freedom to Learn (Merdeka Belajar) at the early childhood education level.

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