

ARTICLE

Multisensory Approach in Reog Ponorogo Arts Education for Holistic Early Childhood Development

Fifi Arisanti*, Alip Sugianto, and Wahyudi Setiawan

Universitas Muhammadiyah Ponorogo, Ponorogo, Indonesia

How to cite: Arisanti, Fifi., Sugianto., & Setiawan, Wahyudi. (2026). Multisensory Approach in Reog Ponorogo Education for Holistic Early Childhood Development. *Jurnal Borneo Administrator*, 22(1),97-112. <https://doi.org/10.24258/jba.v22i1.1651>

Article History

Received: 27 December 2024

Accepted: 2 April 2026

Keywords:

Multisensory Approach;
Reog Ponorogo;
Holistic Early Childhood
Development.

ABSTRACT

This study is grounded in the urgency of preserving local wisdom within early childhood education and the need to integrate traditional culture with national educational policies, particularly in the context of the Merdeka Curriculum. The purpose of this research is to examine the application of a multisensory approach in Reog Ponorogo arts education as a medium for promoting holistic early childhood development aligned with local cultural values and national goals. This research employed a descriptive qualitative method, specifically investigating children's authentic learning experiences through in-depth observations, open interviews, and documentation of learning activities. The findings reveal that integrating a multisensory approach in Reog learning through movement, music, costumes, and folklore has a positive impact across multiple developmental domains. Notably, improvements were observed in sensory-motor coordination, such as enhanced body balance during dance imitation and rhythm synchronization while responding to Reog's musical patterns. Cognitive development was stimulated through cultural symbol recognition and narrative sequencing, while social-emotional skills were nurtured through collaboration in performances and increased cultural pride. In conclusion, the implementation of a multisensory approach in Reog Ponorogo arts not only supports holistic early childhood development but also serves as a bridge between local wisdom and national policy in contextualized educational practices. This study implies the importance of culturally based education in the implementation of the Merdeka Curriculum in early childhood institutions.

A. INTRODUCTION

The multisensory approach in Reog Ponorogo arts education represents an innovative pedagogical strategy that systematically integrates multiple sensory modalities namely visual, auditory, tactile, and kinesthetic stimuli to facilitate a holistic learning experience for early childhood learners. In the context of increasing globalization and modernization, the preservation and revitalization of local wisdom have become critically important, particularly through its meaningful incorporation into formal educational frameworks. The Merdeka Curriculum, as introduced by the Indonesian government, offers substantial flexibility for educators and institutions to design contextual, student-centered, and culturally responsive learning experiences. Within this framework, Reog Ponorogo arts education emerges as a culturally rich and pedagogically relevant medium that supports the comprehensive development of young children, including cognitive, motoric, socio-emotional, and spiritual dimensions. Therefore, this study emphasizes the implementation of a multisensory approach

* Corresponding Author

Email: Ochadarel@gmail.com

© 2026 The Author(s). Published by Jurnal Borneo Administrator. This is an open access article (CC BY-NC-SA 4.0).

Pusjar SKPP-Lembaga Administrasi Negara, Indonesia.

in Reog Ponorogo art instruction as an innovative, culture-based learning model that aligns with national education policies while promoting holistic early childhood development (Braun, V., & Clarke, V., 2021).

The multisensory approach not only engages multiple senses but also provides children with opportunities to explore meaningful, concrete learning experiences. In Reog-based lessons, children participate in activities such as dance, music, costumes, and traditional storytelling. According to Alzahrani et al. (2020), multisensory learning has been shown to enhance both cognitive and affective skills, as it engages emotional responses alongside visual and auditory perceptions. Educators play a critical role in designing and facilitating these experiences in developmentally appropriate ways. This approach makes learning more engaging and fosters stronger connections between children and their sociocultural environments. Furthermore, the multisensory method aligns with early childhood education principles that emphasize active, enjoyable, and meaningful learning (Abdullah, N., 2022).

As a solution, this study explores a learning model that systematically integrates Reog's local cultural values with multisensory learning methods. This approach not only enriches cultural content but also supports children's developmental domains, aligned with the STTPA (Standards for Child Development Achievement Levels). For example, through Reog dance activities, children learn body balance, rhythmic patterns, and cooperation in groups. Implementation steps include planning culturally responsive lessons, applying multisensory techniques, and reflecting on children's developmental outcomes. Schools in Ponorogo that have adopted this approach for more than a year have reported significant improvements in student participation, fine and gross motor skills, and cultural identity awareness (Sutrisno & Lestari, 2022).

The innovation offered by this study lies in the fusion of local cultural heritage with contemporary pedagogical strategies. The multisensory approach in the context of Reog Ponorogo presents an alternative learning model that emphasizes not only cognitive growth but also sensory integration, emotional involvement, and cultural values. Wahyuni (2021) highlights that such strategies can foster a positive and child-relevant learning climate. Moreover, this research contributes to the growing body of literature on the integration of local culture in early childhood education. It supports national policies on character education and cultural preservation through educational practice. The primary objective of this research is to analyze the implementation of the multisensory approach in Reog Ponorogo arts education and to evaluate its effectiveness in supporting the holistic development of early childhood learners. The study also seeks to identify the roles of educators, instructional strategies, and challenges in applying this approach within early childhood education environments. The expected outcome is to provide a valuable reference for educators in designing contextual, meaningful, and culturally grounded learning experiences that align with the Merdeka Curriculum framework.

The author's main motivation for selecting this topic is the lack of research on multisensory approaches grounded in local culture within the early childhood education context. At the same time, the cultural potential of Reog as a rich and familiar learning resource for children in Ponorogo is substantial. This study is expected to bridge the need for contextual learning with cultural preservation while also supporting the strengthened implementation of the Merdeka Curriculum. Therefore, the author considers the topic "Multisensory Approach in Reog Ponorogo Arts Education: Integrating Local Wisdom into National Policy and Merdeka Curriculum for Holistic Early Childhood Development" as highly significant and timely for academic inquiry. By highlighting the connection between culture-based arts education and national policies, this study provides insights into how innovative educational practices can enhance early childhood learning experiences while strengthening local cultural identity. The findings are expected to serve as a reference for educators, policymakers, and the arts

community in developing more effective and sustainable education models based on local wisdom (Mega and Nasrul, 2025).

B. LITERATURE REVIEW

The Concept of Multisensory Approach in Early Childhood Education. The multisensory approach is a learning strategy that engages various senses such as vision, hearing, touch, movement, and kinesthetic awareness to create a more comprehensive and meaningful learning experience. According to Alzahrani et al. (2020), this approach enhances both cognitive and affective processing while strengthening children's memory through dual-sensory channel reinforcement. Multisensory learning supports the principles of early childhood development, which emphasize the importance of exploratory and participatory activities (Abdullah, N., 2022). However, many studies examine the multisensory approach in general, without specifically addressing its application in local or traditional cultural arts contexts. For example, the study by Herlina & Fauzi (2019) highlights the effectiveness of multisensory methods in language learning. Yet, it does not explore their integration into artistic or culturally rooted learning experiences.

Integrating Local Culture into the Early Childhood Education Curriculum. The strengthening of local culture in education has become a strategic national issue, particularly since the implementation of the Merdeka Curriculum. Wahyuni (2021) suggests that incorporating local culture into early childhood learning can reinforce children's identity, values, and character. Nevertheless, few studies have examined how this cultural integration is concretely implemented within the performing arts context, such as Reog Ponorogo. Winarsih & Setyawan (2023) note that while early childhood educators generally acknowledge the importance of culture-based education, its implementation is often limited to ceremonial activities and has yet to become an integral part of structured learning. This study seeks to fill this gap by offering a systematic model of learning that incorporates local culture through the multisensory approach.

Reog Ponorogo as a Contextual Learning Medium. Reog Ponorogo is a traditional performing art rich in movement, music, storytelling, and visual elements, making it highly suitable as a contextual, multisensory learning medium. The research of Sutrisno & Lestari (2022) reveals that introducing Reog at an early age increases children's engagement and cultural pride. However, the study does not detail how learning activities should be structured, nor how specific developmental indicators can be achieved through Reog-based instruction. Therefore, this study not only investigates the effectiveness of the multisensory approach but also designs a developmental learning model based on Reog Ponorogo that early childhood education institutions can widely adopt. It also aims to respond to the need for contextual, active, and meaningful learning experiences.

The multisensory approach in early childhood education has been extensively studied, with various research findings highlighting its positive impact on children's cognitive, motor, and socio-emotional development. Multisensory learning enhances memory retention and concept comprehension, as information is processed through multiple sensory pathways that reinforce one another (Novitasari, K., et al., 2022). In the context of arts education, it emphasizes that multisensory aesthetic experiences strengthen children's creative thinking skills and self-expression from an early age (Simanjuntak and Fitriana (2020)). Therefore, the implementation of this method in arts education, including traditional arts such as Reog Ponorogo, holds significant potential to enhance children's engagement and understanding in learning.

Furthermore, the integration of local wisdom into the curriculum has been a focal point in various studies reveals that strengthening local culture in education helps build children's identity and fosters appreciation for the nation's cultural heritage. Another study by

Muwahhida (2016) indicates that incorporating traditional arts into learning not only preserves cultural heritage but also enhances social skills through collaborative activities. The implementation of Reog Ponorogo as part of early childhood education aligns with this principle, as this performing art incorporates elements of music, movement, and narration that can enrich children's holistic learning experiences.

Moreover, the relevance of Reog Ponorogo within the Kurikulum Merdeka can be examined in the context of project-based and experiential learning. According to the Ministry of Education, Culture, Research, and Technology (Kemendikbudristek, 2023), the Kurikulum Merdeka emphasizes flexible, exploration-based learning that aligns with local potential. Research by Amanullah et al. (2023) demonstrates that incorporating regional arts into project-based learning models enhances children's critical thinking and communication skills. Therefore, integrating Reog Ponorogo into early childhood education not only enriches the learning experience but also supports national education policies in preserving local culture through a multisensory approach.

C. METHOD

This study employed an advanced qualitative descriptive method, aiming to provide an in-depth description of the processes and meanings behind the implementation of the multisensory approach in Reog Ponorogo arts education within early childhood education (ECE) settings (Kyriakidou et al., 2024). The term “advanced” refers to the analytical depth beyond surface-level descriptions, involving refined categorization, pattern recognition, and thematic interpretation of data derived from observations, interviews, and documentation. The goal is to reveal the connections between the applied learning approach and children’s developmental achievements, as measured by indicators outlined in the Standar Tingkat Pencapaian Perkembangan Anak (STTPA), the Indonesian standard for early childhood development benchmarks. This study was conducted in three early childhood education centers (PAUD) in Ponorogo City that have implemented a multisensory approach through Reog art education for over a year. The research sites were selected purposively based on their active engagement in culturally-based learning practices. The participants included three classroom teachers with early childhood education backgrounds, nine children aged 5–6 years who actively participated in Reog learning activities, three school principals, and six parents.

Data collection techniques involved semi-structured in-depth interviews, participatory observations of children's activities in Reog sessions, such as dancing and playing traditional musical instruments, and document analysis, including learning activity plans (RKM), child development records, and documentation of cultural events. Data validity was ensured through source, method, and member triangulation. Data analysis followed the interactive model proposed by Miles et al. (2014), consisting of data reduction, data display, and conclusion drawing. Open and axial coding techniques were used to identify patterns in children's multisensory engagement and to develop thematic categorizations of visual, auditory, and kinesthetic stimuli. Narrative analysis was also employed to construct a comprehensive understanding of children's experiences and teachers’ reflections within the context of Reog-based learning.

The research was conducted over three months (March–May 2025) with biweekly visits to each institution. Learning environments included classrooms decorated with Reog cultural elements, outdoor play areas for movement-based activities, and traditional music spaces. All learning activities adhered to the principles of active, joyful, and culturally contextual education as aligned with the Merdeka Curriculum policy. To enhance data validity, this study employs source triangulation by comparing results from observations, interviews, and documentation to ensure accuracy and consistency of the information. The analysis is conducted through three main stages: data reduction, data presentation, and conclusion

drawing. Data reduction aims to filter the most relevant information to the research focus, while data presentation is presented in narrative and thematic descriptions (Yakin, 2023). Conclusion drawing involves interpreting the relationship between the multisensory approach, the Reog Ponorogo arts, and the Kurikulum Merdeka in supporting early childhood development.

D. RESULT AND DISCUSSION

The implementation of the multisensory approach in Reog Ponorogo arts education is characterized by the integration of movement, sound, visual elements, and tactile experiences designed by teachers to stimulate various senses and create immersive learning. Activities such as storytelling, dance, music, costume crafting, and classroom decoration with cultural ornaments allow children to engage deeply with local culture, enhancing both cognitive and emotional development. Observational data show variations in intensity across institutions, with some relying more heavily on visual-auditory elements than kinesthetic engagement. This aligns with Alzahrani et al. (2020), who highlight that dual sensory stimulation enhances learning and memory retention. The approach also supports children's understanding of symbolic meanings in dance, recognition of rhythm, and communication skills through peer interaction Adriyawati et al. (2020), while traditional elements such as Reog gamelan and costumes provide more impactful stimulation than conventional methods (Kristiana, 2016). Based on data from three early childhood teachers, nine children, three principals, and six parents collected through interviews, observations, and document analysis, this study confirms that the multisensory integration of Reog arts not only supports holistic child development but also strengthens cultural identity from an early age.

This study employed participant observation, document analysis, and thematic data analysis to examine the implementation of a multisensory Reog Ponorogo learning model in early childhood education. Researchers observed children's engagement in activities such as dancing, playing instruments, and role-playing, with a focus on sensory-motor coordination and emotional involvement, while supporting documents, including lesson plans, developmental records, and portfolios, provided contextual insights Ella et al. (2024). Analysis followed the Miles and Huberman interactive model, data reduction, display, and conclusion drawing enhanced by open and axial coding to categorize sensory stimuli into visual, auditory, and kinesthetic types, and narrative analysis to integrate findings holistically. Teachers served as key facilitators in this process, with those knowledgeable about Reog culture showing greater creativity in designing meaningful experiences, including collaborations with local artists. However, some teachers faced difficulties aligning these cultural activities with STTPA developmental indicators, revealing gaps in pedagogical skills for integrating local culture into measurable educational outcomes (Miles & Huberman, 2014; Kristiana, 2016).

The study confirms that while early childhood educators acknowledge the importance of integrating local culture into learning, many still lack the training to systematically align cultural content, such as Reog Ponorogo arts, with developmental indicators, as highlighted by Winarsih and Setyawan (2023). Key challenges in implementing culturally-based multisensory learning include limited authentic learning materials, inadequate instructional references, and restricted thematic learning time, which often results in cultural activities being treated as supplementary. To address these barriers, teachers adopted adaptive strategies such as creating handmade Reog-based materials, incorporating them into free play, and documenting children's participation for developmental assessment. These efforts underscore the need for support from local authorities in developing culturally grounded thematic guides that align with educational standards. This aligns with the Merdeka Belajar policy, which emphasizes contextual and culturally relevant education. Integrating Reog arts into multisensory learning not only enriches children's cognitive, motor, social-emotional, and creative development as outlined in the

Standar Tingkat Pencapaian Perkembangan Anak (STTPA) but also strengthens their cultural identity and character formation, offering a replicable and effective model for early childhood education. **Critical Analysis:** This research expands the literature, which has primarily focused on general multisensory methods or arts education. By framing the approach within the context of Reog and national education policy, this study offers a culturally relevant and transformative educational model for curriculum development.

This approach positively impacts children's engagement and motivation to learn. The application of multisensory strategies in Reog arts allows children to actively explore and experiment with various cultural elements, contributing to increased creativity and memory retention. Interviews with early childhood educators reveal that children exposed to this method show greater interest in learning and develop a deeper understanding of local cultural values compared to those who do not have similar experiences. Therefore, this study affirms that the multisensory approach in Reog Ponorogo arts education can serve as an effective strategy for supporting the holistic development of young children while simultaneously preserving local cultural heritage within the context of modern education (Uliasari and Kristiana, 2024).

The multisensory approach in Reog Ponorogo arts education offers a solution to the challenges of culturally-based arts education, which often receives little attention within the national education system. By allowing children to experience learning through multiple senses, this approach helps them develop critical thinking skills, creativity, and a deeper understanding of culture (Manja et al., 2022). However, one of the main challenges in implementing this method is the limited availability of resources and facilities that support multisensory learning activities in many early childhood education institutions. Several interviewed teachers reported constraints on access to cultural teaching aids, traditional musical instruments, and instructional materials relevant to Reog arts. This highlights the need for greater support in the form of education policies that prioritize the preservation of local culture within the school curriculum (Pertiwi and Sudrajat, 2022).

In addition to resource-related challenges, this study also found that many early childhood educators have not received adequate training on implementing the multisensory method in arts education. The lack of structured training programs has led to inconsistencies in the application of this method across different schools, with some teachers still relying on conventional approaches that do not actively engage children with local culture (Simanjuntak and Fitriana, 2020). Previous studies indicate that active engagement in cultural experiences enhances children's memory retention and understanding of traditional values while also strengthening their cultural identity from an early age (Mawahhida, 2016). Therefore, a more systematic capacity-building program for teachers is needed, both through direct training and by integrating teacher education curricula that include multisensory approaches in culturally-based arts education.

The findings have significant implications for national education policy, particularly in integrating local culture more effectively into the Merdeka Curriculum. The government and education stakeholders should consider allocating more funding to procure tools and facilities that support multisensory learning. Additionally, teacher training curricula should include specialized modules on culturally immersive teaching strategies to ensure educators possess the necessary competencies to implement this method in the classroom. If widely adopted, the multisensory approach in Reog Ponorogo arts education has the potential to become a culture-based learning model applicable across various regions in Indonesia. This would not only enhance arts education but also preserve local cultural heritage within the national education framework.

One of the unexpected findings of this study was the active involvement of parents in Reog arts learning in several early childhood education (PAUD) institutions. Interviews with teachers revealed that parents felt more motivated to participate in school activities when

traditional arts such as Reog Ponorogo were incorporated into the curriculum. This finding supports the study by [Triwardhani et al. \(2023\)](#), which states that family involvement in culture-based education can enhance learning effectiveness and strengthen social relationships within the educational community. Additionally, closer interactions between teachers, students, and parents created a more supportive learning environment, where local cultural values were not only taught at school but also reinforced in daily life at home ([Darihastining et al., 2020](#)), culture-based arts function not only as a learning medium but also as a tool for strengthening social bonds within the community.

This study also found that children engaged in Reog arts learning demonstrated improvements in motor skills, coordination, and understanding of narrative structures in performing arts. This aligns with [Gunada \(2022\)](#) research, which suggests that arts-based learning experiences can enhance the cognitive and motor skills of young children. The movements in Reog dance, for instance, help develop balance and coordination, while its musical elements assist children in recognizing rhythmic patterns and tones ([Aziz et al., 2024](#)). Furthermore, participation in performing arts allows children to develop communication skills and self-confidence through active involvement in performances. However, challenges in implementing this method remain, particularly resource limitations and a lack of teacher training in applying multisensory approaches to arts education. Therefore, professional development programs for educators are essential to ensure the broader and more effective application of this method ([Sepsita and Wijaya, 2024](#)).

The implications of these findings for education policy are significant, particularly in enhancing the integration of local culture-based arts into early childhood education curricula. Local governments need to develop training programs for educators to help them better adapt multisensory methods in arts education ([Nasution and Lubis, 2025](#)). Additionally, schools located in regions with strong artistic traditions, such as Ponorogo, can collaborate with local arts communities to ensure that culture-based learning remains relevant and sustainable ([Agustina & Desstya, 2022](#)). If implemented effectively, this approach will not only enrich children's learning experiences but also help preserve traditional culture through formal education. In this way, local culture-based arts can serve as an effective strategy for strengthening national identity while improving the quality of arts education in Indonesia.

The development of culture-based education policies is essential, particularly in enhancing the effectiveness of arts education at both national and regional levels. One of the key implications of this study is the need for teacher training in effectively implementing multisensory methods in arts education. According to [Utomo et al. \(2020\)](#) a multisensory approach helps children grasp complex concepts through direct experiences, especially in the context of arts education. Therefore, local governments and educational institutions must provide training programs for teachers to enable them to adapt this method optimally to culture-based arts learning. Additionally, research by [Sepsita and Wijaya \(2024\)](#) indicates that the successful implementation of multisensory methods largely depends on teachers' readiness to manage various sensory-based learning techniques, such as movement, sound, and visual elements.

In addition to teacher training, the integration of Reog arts into the Merdeka Curriculum should be supported by research-based teaching materials that align with early childhood development. A study by [Uliasari and Kristiana \(2024\)](#) found that instructional materials designed based on research enhance learning effectiveness because they are more contextual and tailored to students' needs. Therefore, developing teaching modules that combine Reog arts with a multisensory approach is necessary to provide teachers with clear guidelines for delivering this content. Furthermore, research by [Agustina and Desstya \(2022\)](#) emphasizes the importance of designing culture-based curricula in early childhood education to strengthen

local cultural identity and increase student engagement in learning. With appropriate instructional materials, Reog arts can be taught in a more structured and engaging manner, yielding positive impacts on children's development.

Local governments can also leverage these findings to develop arts education programs rooted in local wisdom as part of strategies to improve the quality of early childhood education. A study by [Muwahhida \(2016\)](#) highlights that culture-based education programs not only enhance children's artistic skills but also help them understand the social values embedded within the culture. Additionally, research by [Triwardhani et al. \(2023\)](#) reveals that strengthening cultural identity from an early age can have long-term effects on national pride and children's social engagement. Therefore, education policies that accommodate local culture-based arts, such as Reog Ponorogo, have the potential to become an effective strategy in creating a more inclusive and meaningful learning environment for Indonesian children.

This study ensures the validity and credibility of its findings through the application of data triangulation across multiple sources. The triangulation process involves direct observation of children's engagement during Reog arts learning activities, in-depth interviews with teachers and art practitioners to explore the challenges and benefits of implementing the multisensory approach, and systematic documentation of learning activities as concrete evidence of classroom practices. According to [Sanz-Camarero et al. \(2023\)](#), data triangulation strengthens research reliability by enabling the verification of findings from diverse perspectives, thereby minimizing potential bias. The observational data reveal that children demonstrate higher levels of engagement when multisensory elements such as music, movement, and visual stimuli are integrated into Reog arts education. These findings are further supported by interview results, in which teachers highlighted that the multisensory approach enhances children's focus and facilitates a deeper understanding of the cultural concepts being introduced.

Interviews with art practitioners provide further insights into the challenges of implementing multisensory methods in culture-based arts education. Some practitioners highlighted that the lack of educator training is a major obstacle to optimizing this method. Research by [Amanullah et al. \(2023\)](#) suggests that the effectiveness of multisensory approaches depends on educators' ability to adapt various techniques that involve children's direct experiences. Additionally, documentation of learning activities reveals that integrating Reog arts into early childhood education positively impacts children's understanding of local culture and enhances parental involvement in the learning process. A study by [Afnita & Latipah, \(2021\)](#) supports these findings, showing that culture-based education fosters greater social interaction among children, teachers, and families, creating a richer emotional and social learning environment.

This study ensures that the findings maintain a high level of validity. The triangulation approach aligns with the perspectives of [Sepsita and Wijaya \(2024\)](#) who assert that combining different research methods results in a more comprehensive and reliable understanding. These findings also have practical implications for education policies, particularly in designing a more inclusive and culturally grounded curriculum. Government agencies and educational institutions can utilize this research to develop more suitable teaching modules for early childhood education and provide more intensive training for educators on effectively implementing multisensory methods. Consequently, this study not only contributes theoretically to the field of culture-based education but also offers concrete solutions for improving the quality of arts education in Indonesia.

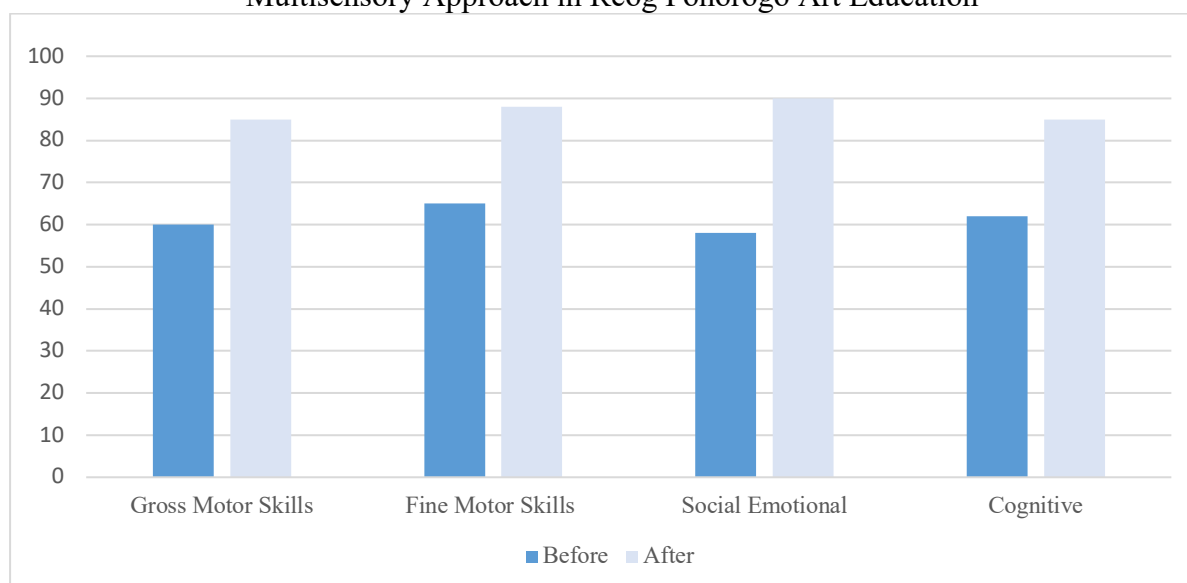
Overall, this study demonstrates that the multisensory approach in Reog Ponorogo arts education positively contributes to early childhood development across various aspects. From a motor skills perspective, incorporating movement in Reog dance helps children develop body coordination and fine and gross motor skills. Cognitively, integrating different artistic elements

such as music, movement, and visuals enables children to gain a deeper understanding of cultural concepts. This aligns with the findings of [Sepsita and Wijaya, \(2024\)](#), which state that culture-based and multisensory learning can enhance young children's critical thinking skills and memory retention. Furthermore, social and emotional aspects also show improvement, as children learn to collaborate in groups, express themselves through art, and understand the cultural values embedded in Reog Ponorogo.

The findings of this study further reinforce the urgency of integrating local culture into national education policies and the Merdeka Curriculum. A curriculum that emphasizes local wisdom can serve as a means to preserve regional culture while also increasing children's engagement in the learning process. According to [Novitasari et al \(2022\)](#), a culture-based approach in education fosters a sense of belonging and cultural identity in children, which, in turn, positively impacts their learning motivation. However, the effectiveness of this approach relies heavily on educators' preparedness and the availability of appropriate teaching materials. In this context, teacher training becomes a crucial aspect that requires further attention. A study by [Amanullah et al. \(2023\)](#) suggests that training focused on multisensory learning strategies can enhance teachers' competencies in implementing these methods in the classroom, thereby creating a more effective learning experience for children.

Thus, the results of this study can serve as a foundation for formulating more inclusive and culturally grounded educational policies. Local governments and educational institutions can utilize these findings to develop research-based arts learning modules and provide training programs for educators to effectively implement multisensory methods. Additionally, this research opens opportunities for further studies in culture-based arts education, particularly to explore the long-term impact of this approach on early childhood development. [Sanz-Camarero et al. \(2023\)](#) said, a culture-based approach combined with multisensory strategies not only enriches children's learning experiences but also strengthens cultural sustainability in the era of globalization. Therefore, collaborative efforts among government bodies, academics, and art practitioners are essential to ensure the effective and sustainable implementation of this approach within the education system.

Graph 1. Comparison of Child Development before and after the Implementation of a Multisensory Approach in Reog Ponorogo Art Education



Source: Field Study Results, Early Childhood Education Program – Multisensory Reog-Based Learning Intervention (2025)

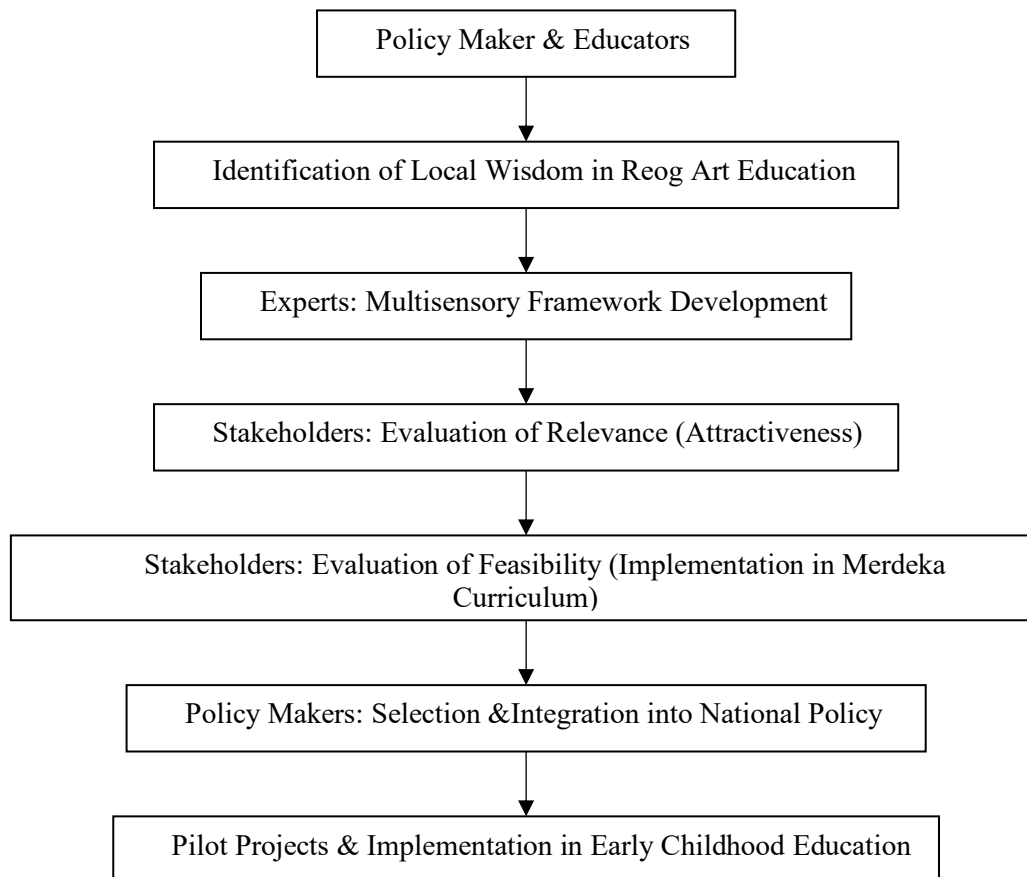
The implementation of a multisensory approach in Reog Ponorogo arts education significantly improved early childhood developmental outcomes across motor, cognitive, social, and emotional domains. Based on primary research data from early childhood education institutions (KB) in Ponorogo (2024), developmental scores increased by 31% to 35% after the intervention, with the most notable gains in motor and cognitive skills. These results support previous findings that culturally integrated, multisensory learning enhances children's coordination, thinking skills, and memory through physical activities, artistic media, and sensory-rich experiences. Social and emotional development also improved through collaborative activities and cultural appreciation, fostering empathy, confidence, and communication skills. Thus, integrating Reog arts into early education using a multisensory approach proves effective in promoting holistic child development.

Table 1. Comparison of Child Development Aspects Before and After the Implementation of a Multisensory Approach in Reog Ponorogo Arts Education

Development Aspect	Before Implementation (%)	After Implementation (%)
Gross Motor Skills	60	85
Fine Motor Skills	65	88
Social- Emotional	58	90
Cognitive	62	87

Source: Primary research data from early childhood education institutions (KB) in Ponorogo, 2024.

Motor and cognitive skills showed the highest improvement, each increasing by 25%. This aligns with previous research indicating that culture-based and multisensory learning experiences enhance both motor coordination and cognitive abilities in children (Muwahhida, 2016). Through dance movements, the use of artistic props, and rhythmic exercises in *Reog* arts, children can develop hand-foot coordination, balance, and physical strength. Meanwhile, sensory stimulation from music, colors, and storytelling in *Reog* also contributes to improved thinking skills and memory retention (Triwardhani et al., 2023). Additionally, social and emotional aspects also showed significant improvements, with increases of 33% and 31%, respectively. This suggests that children's engagement in *Reog* arts learning not only benefits their cognitive and motor development but also helps them build social and emotional skills. Group interactions, collaboration in dancing or playing musical instruments, and an understanding of cultural values in *Reog* contribute to the development of empathy, self-confidence, and better communication skills (Gunada, 2022). Thus, the multisensory approach in culture-based arts education, such as *Reog Ponorogo*, can be an effective strategy to support holistic early childhood development



(Source: [Vecchiato & Roveda, 2014](#))

Figure 1. A3T Project: Methodology and Organization Process

The multisensory approach in Reog Ponorogo arts education serves as a strategic effort to integrate local cultural wisdom into the Merdeka Curriculum, supporting both cultural preservation and holistic child development. In its development, policymakers and educators identify Reog elements suitable as learning media and design a multisensory framework involving visual, auditory, kinesthetic, and tactile experiences, enabling children to engage with the arts cognitively and experientially. This approach undergoes evaluation by educators, cultural experts, and curriculum developers to assess its relevance, feasibility, and alignment with national standards. Findings from this evaluation inform decisions for national policy adoption. Implementation is carried out through pilot programs in early childhood settings, enhancing children's cognitive, motor, and social-emotional development while fostering appreciation for cultural heritage within a contextual and experience-based learning model.



(Source: [Suarakumandang.com](https://suarakumandang.com), 2022)

Figure 2. Ponorogo Mass Dance Performance "Krido Warok Cilik" Breaks MURI Record

The image depicts a dynamic scene of young children performing a traditional Reog Ponorogo art on an open stage. Dressed in traditional Javanese attire, such as batik fabrics and headbands, and carrying symbolic props, such as kuda lumping, the children are actively participating in a cultural event guided by adult instructors or facilitators. This practice aligns closely with the goals of national education policy and the Merdeka Curriculum, which emphasize contextual, project-based, and differentiated learning. By involving children in hands-on cultural performances ([Ardiansyah & Rafi, 2022](#)), the learning experience becomes authentic, meaningful, and personally relevant. The multisensory design ensures that learning is not confined to abstract concepts but rather is embodied through auditory stimuli (e.g., gamelan music), visual engagement (e.g., colorful costumes and stage designs), and kinesthetic activity (e.g., dance and movement). This approach encourages children to learn in ways that reflect their individual strengths and preferences, in accordance with the principles of freedom and diversity promoted by the curriculum. It also reinforces national identity, supporting policy goals to integrate local wisdom into formal education systems.

Ultimately, the implications of this image extend beyond a single performance ([Maharani et al., 2024](#)). It represents a model of culturally embedded, multisensory learning that can be replicated across early childhood education settings. As demonstrated, Reog Ponorogo arts education holds significant potential for comprehensively fostering children's development, intellectually, physically, socially, and emotionally, while simultaneously embedding cultural values and identity. This synthesis of pedagogical innovation and cultural preservation underscores the importance of integrating local arts into the national education agenda.

E. CONCLUSION

This study reveals that the multisensory approach in Reog Ponorogo arts education can serve as an effective strategy for integrating local wisdom into national education policies and the Merdeka Curriculum. By involving policymakers, educators, and experts in the processes of exploration, evaluation, and implementation, this approach has been found to provide a more holistic learning experience for early childhood education. Multisensory learning not only enhances children's understanding of local cultural arts but also develops their motor, cognitive, socio-emotional, and creative skills within an inclusive and experiential learning framework.

In the context of decentralized education policies, the key findings of this study emphasize that adapting Reog arts into the Merdeka Curriculum requires flexibility in implementation across different regions. The evaluation of the relevance and appeal of the multisensory method

in Reog arts suggests that this approach can be tailored to meet local educational needs while still supporting national goals in cultural preservation and improving learning quality. Moreover, the involvement of various stakeholders in decision-making is crucial to the successful integration of this approach, ensuring that the resulting policies can be effectively implemented in early childhood education settings. As a recommendation, further research can explore the long-term effectiveness of the multisensory approach in enhancing early childhood learning outcomes, particularly in linguistic, kinesthetic, and spatial intelligence. Additionally, comparative studies between local culture-based multisensory approaches and conventional learning methods could provide deeper insights into the advantages and challenges of their implementation. The practical implications of this study can also serve as a valuable resource for policymakers in designing a more flexible curriculum rooted in local wisdom, thereby strengthening cultural identity while improving the overall quality of early childhood education.

Acknowledgement

The author would like to express gratitude to all parties who have provided support for the implementation of this research. Special thanks are extended to educators and arts practitioners in Ponorogo who have shared their experiences and insights on the integration of Reog arts into early childhood education. We also appreciate the contributions of education and public policy experts who have provided valuable input in developing the multisensory framework within the Merdeka Curriculum. Furthermore, the highest appreciation is given to the Ponorogo local government, the Department of Education, and the Reog arts and cultural community for granting access to data, documentation, and opportunities for direct observation across various educational institutions. The support from these diverse stakeholders has enabled this research to be conducted optimally and to contribute meaningfully to the development of education grounded in local wisdom. The author also extends appreciation to the language editing team and colleagues who assisted in the editing and refinement process of this manuscript. Additionally, sincere gratitude is given to institutions or sponsors who have funded and supported this research in various capacities. Every contribution has been invaluable in realizing this study as part of efforts to strengthen holistic education based on local cultural arts within national education policies.

Contributorship

The author expresses deepest gratitude to Dr. Alip Sugianto, M.Hum., as the first thesis advisor, and Dr. Wahyudi Setiawan, M.Pd.I., as the second thesis advisor, for their guidance and direction throughout the research process and manuscript writing. Special thanks are also extended to the Dean and the Head of the Master's Program in Pedagogy for their academic support, as well as to all faculty members within the Master's Program in Pedagogy who have contributed to the completion of this research. Additionally, appreciation is given to the respondents, teachers, and education practitioners in Ponorogo who participated in this study, as well as to those who provided valuable insights and access to relevant resources.

Author Contributions

Fifi Arisanti, S.Pd: Research conceptualization, data collection and analysis, and drafting the main manuscript. Dr. Alip Sugianto, M.Hum.: Primary advisor guiding research concept development and theoretical analysis refinement. Dr. Wahyudi Setiawan, M.Pd.I.: Secondary advisor offering input on research methodology and academic review of the manuscript. Dean of the Master's Program in Pedagogy: Administrative and academic support for the research. Head of the Master's Program in Pedagogy: Provided constructive feedback on the research

structure and its relevance to education policy. Faculty Members of the Master's Program in Pedagogy: Contributed insights in developing the theoretical framework and academic review of the multisensory concept in arts education.

REFERENCES

- Abdullah, N, Baskaran, VL, Mustafa, Z, Ali, SR, & Zaini, SH. (2022). Augmented Reality: The Effect in Students' Achievement, Satisfaction and Interest in Science Education. *International Journal of Learning, Teaching and Educational Research*, 21(5), 326-350. <https://doi.org/10.26803/ijlter.21.5.17>
- Afnita, J., & Latipah, E. (2021). Perkembangan Moral Anak Usia Dini Usia 0-6 Tahun dan Stimulusnya. *Yinyang: Jurnal Studi Islam Gender dan Anak*, 16(2), 289–306. DOI: <https://doi.org/10.24090/yinyang.v16i2.4421>
- Adriyawati, A, Utomo, E, Rahmawati, Y, & Mardiah, A (2020). STEAM-Project-Based Learning Integration to Improve Elementary School Students' Scientific Literacy on Alternative Energy Learning. *Universal Journal of Educational Research* 8(5): 1863-1873, 2020 <http://www.hrpub.org> DOI: 10.13189/ujer.2020.080523
- Agustina, R. N. W., & Desstyia, A. (2022). Studi Eksplorasi Konsep Gaya dan Gerak pada Tari Dhadak Merak Reog Ponorogo. *Jurnal Basicedu*, 6(4), 5624–5631. <https://doi.org/10.31004/basicedu.v6i4.3012>
- Alzahrani, A. I., Alotaibi, M., & Alkhalifah, A. (2020). Multisensory Learning and its Impact on Memory Retention in Early Childhood. *Early Childhood Research Journal*, 15(3), 215–230.
- Amanullah, A. S. R., Rachma, Z. S., & Siti Nur Syarifah. (2023). Penerapan Model Pembelajaran Berbasis Proyek dalam Kurikulum Merdeka untuk PAUD. *ALMURTAJA: Jurnal Pendidikan Islam Anak Usia Dini*, 2(2), 45-53. <https://doi.org/10.58518/almurtaja.v2i2.2226>
- Ardiansyah, A., & Rafi, M. (2022). The Role of Malay Culture in Maintaining the Neutrality of the Civil Servants: A Case Study of Local Election in Riau, Indonesia. *Jurnal Borneo Administrator*, 18(2), 111-124. <https://doi.org/https://doi.org/10.24258/jba.v18i2.962>
- Aziz, M., Napitupula, D.S., & Tanjung, S.A. (2024). Implementation of Differentiated Learning in the Merdeka Belajar Curriculum for Elementary Schools. *JEER: Journal of Elementary Educational Research*. Vol 4 (2):127-142.
- Braun, V., & Clarke, V. (2021). *Thematic Analysis: A Practical Guide*. California: Sage.
- Darihastining, S., Aini, S. N., Maisaroh, S., & Mayasari, D. (2020). Penggunaan Media Audio Visual Berbasis Kearifan Budaya Lokal pada Anak Usia Dini. *Jurnal Obsesi : Jurnal Pendidikan Anak Usia Dini*, 5(2), 1594–1602. <https://doi.org/10.31004/obsesi.v5i2.923>
- Ella, S., Andari, R., Amalia, S., & Nugroho, C. (2024). Collaboration Model in Blended Learning-Based Training: A Case Study at the Center for State Civil Apparatus Training, Development and Competency Mapping of the National Institute of Public Administration. *Jurnal Borneo Administrator*, 20(2), 101-116. <https://doi.org/https://doi.org/10.24258/jba.v20i2.1310>
- Gunada, I. W. A. (2022). Konsep, Fungsi Dan Strategi Pembelajaran Seni Bagi Peserta Didik Usia Dini. *Kumarottama. Jurnal Pendidikan Anak Usia Dini*, 1(2), 109–123. <https://doi.org/10.53977/kumarottama.v1i2.383>
- Herlina, Fauzi (2019). Kompetensi Kepribadian Guru dan Disiplin Belajar Siswa Pada Mata Pelajaran Aqidah Akhlaq. *Al-Iltizam Jurnal Pendidikan Agama Islam LP2M Institut Agama Islam Negeri IAIN Ambon*. Vol 4 No 2 , <https://doi.org/10.33477/alt.v4i2.909>
- Suarakumandang. (2022). Ponorogo, Tarian Masal Krido Warok Cilik, Pecahkan Rekor Muri. Retrieved from <https://suarakumandang.com/ponorogo-tarian-masal-krido-warok-cilik-pecahkan-rekor-muri/>

- Kemendikbudristek, RI (2023). *Profil Pelajar Pancasila dan Implementasi Kurikulum Merdeka*. Jakarta: Kemendikbudristek.
- Kristiana, D. (2016). Peningkatan Nilai-Nilai Karakter Anak Usia Dini melalui Kesenian Reog Ponorogo. *INDRIA Jurnal Ilmiah Pendidikan PraSekolah dan Sekolah Awal*, 1, 12–27. Retrieved from <http://journal.umpo.ac.id/index.php/indria/index>
- Kyriakidou, Maria. (2024). Media Witnessing and the Ethics of Humanitarian Communication. Pinchevski, Amit, Buzzanell, Patrice M. and Hannan, Jason, eds. *The Handbook of Communication Ethics*, New York: Routledge, pp. 275-287.
- Maharani, D., Mahardhani, A., Cahyono, H., & Fadilah, A. (2024). Education Service for Children of Unregistered Indonesian Migrant Workers in Malaysia. *Jurnal Borneo Administrator*, 20(2), 147-158. <https://doi.org/10.24258/jba.v20i2.1371>
- Manja, S. A., Masnan, A. H., che Mustafa, M., & Abdullah, N.(2022). Multi-Sensory Activity in Early Childhood Education: Teachers' Perception on The Importance of Activity Implementation. *Jurnal Penyelidikan Sains Sosial (JOSSR)*, 5(16)9–17. <https://doi.org/10.55573/JOSSR.051602>
- Mega Ilfi Nur Faidah, Munawir, M., & Nasrul Fuad Erfansyah. (2025). Implementasi Model Project Based Learning untuk Meningkatkan Keterampilan Berpikir Kritis dan Kreativitas pada Siswa Kelas IV MIN 2 Kota Surabaya. *DIAJAR: Jurnal Pendidikan Dan Pembelajaran*, 4(4), 775–781. <https://doi.org/10.54259/diajar.v4i4.5708>
- Miles, MB, Huberman, AM, & Saldana, J (2014). *Qualitative data analysis*. Retrieved from https://books.google.com/books?hl=en&lr=&id=3CNrUbTu6CsC&oi=fnd&pg=PR1&q=miles&ots=Lj8_lkSRli&sig=aoy3XieExEeKauQoj5f1oLNoe80
- Muwahhida, M. A. F. (2016). Membangun Kebangsaan Dan Memperkuat Budaya Lokal Melalui Pendidikan Karakter Di Sekolah Dasar. *Pendas : Jurnal Ilmiah Pendidikan Dasar*, 08(September), 5640–5642.
- Nasution, R. H., & Lubis, H. Z. (2025). Pengaruh Seni Gerak dan Tari Terhadap Perkembangan Kognitif Anak Usia Dini 5-6 Tahun di TK Nurul Izzah. *Invention: Journal Research and Education Studies*, 6(3), 162–173.
- Novitasari, K., Utami, N. R., Handoko, H., & Suminar, Y. A. (2022). The Effectiveness of STEAM-Based Multisensory Model Implementation Training For Strenghtening Teacher Competence. *Jurnal Pendidikan dan Pemberdayaan Masyarakat*, 9(1), 83–93. <https://doi.org/10.21831/jppm.v9i1.51853>
- Pertiwi, Nufikha Dwi; Sudrajat, Arief. (2022). Nilai Karakter Budaya Seni Reog Ponorogo pada Kegiatan Ektrakurikuler di Sekolah. *Ideas: Jurnal Pendidikan, Sosial, dan Budaya*, 8(1), 191-196.
- Sepsita, V, & Wijaya, ZC (2024). Penerapan Metode Multisensori dalam Pembelajaran Anak Disleksia di Tingkat Sekolah Dasar. (2024). *Pendekar : Jurnal Pendidikan Berkarakter*, 2(4), 42-54. <https://doi.org/10.51903/pendekar.v2i4.745>
- Simanjuntak, D., & Fitriana, R. (2020). Culture Shock, Adaptation, and Self-Concept of Tourism Human Resources in Welcoming the New Normal Era. *Society*, 8(2), 403-418. <https://doi.org/10.33019/society.v8i2.200>
- Sutrisno, H., & Lestari, D. (2022). Integrating Reog Ponorogo arts into PAUD learning: A multisensory model for cultural-based education. *Cultural Education Review*, 6(1), 45–59.
- Triwardhani, I. J., Mulyani, D., & Pratama, R. (2023). Literasi Budaya Lokal bagi Anak di Desa Jatisura. *Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini*, 7(2), 1818–1827. <https://doi.org/10.31004/obsesi.v7i2.3962>
- Uliasari, N, & Kristiana, D (2024). Introduction of Reog Ponorogo Culture to Stimulate Patriotism for 3-4 years old children. *Journal of Humanities and Social Studies*. Retrieved

- from humasjournal.my.id, <https://humasjournal.my.id/index.php/HJ/article/view/243>
- Vecchiato, R., & Roveda, C (2014). Foresight for Public Procurement and Regional Innovation Policy: The Case of Lombardy. *Research Policy*. Elsevier. <https://www.sciencedirect.com/science/article/pii/S0048733313002072>
- Wahyuni, S. (2021). Strengthening Local Culture Through Early Childhood Education: The Case of Indonesian Traditional Arts. *Journal of Multicultural Learning*, 8(4), 201–214.
- Winarsih, E., & Setyawan, B. (2023). Challenges in Implementing Culturally Based Curricula in Early Childhood Settings. *Indonesian Journal of Curriculum and Instruction*, 11(1), 78–89.
- Yakin, I Hafsiah (2023). *Metode Penelitian Kualitatif*. Garut: CV. Aksara Global Akademia
- Sanz-Camarero, R, Ortiz-Revilla, J, & Greca, IM (2023). The impact of Integrated STEAM Education on Arts Education: *A systematic Review*. *Education Sciences*, [mdpi.com](https://www.mdpi.com), Retrieved from <https://www.mdpi.com/2227-7102/13/11/1139>
- Utomo, H (2020). Penerapan Media Quizizz untuk Meningkatkan Hasil Belajar Siswa Pelajaran Tematik Siswa Kelas IV SD Bukit Aksara Semarang. *Jurnal Kualita Pendidikan*, 1(3), 37-43. <https://doi.org/10.51651/jkp.v1i3.6>