



Integrating Traditional Games into Teacher Training Programs in Pinrang Regency to Enhance School Readiness and Child Development

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Abstract

This study aimed to analyze the integration of traditional games into teacher training programs as a strategy to enhance school readiness and holistic child development in Pinrang Regency, focusing on early-grade primary school teachers and kindergarten teachers. The research employed a mixed-methods design with a quasi-experimental approach, involving teachers, children, and parents from rural and urban areas. Teacher training sessions introduced culturally responsive, play-based strategies by integrating relevant traditional games. Children's developmental domains, including cognitive, motor, social-emotional, and linguistic, were assessed before and after the intervention. The results revealed significant improvements across all measured domains. Children exhibited better problem-solving abilities, enhanced cooperation, improved language skills, and better motor coordination. Teachers gained confidence in implementing intentional play-based teaching methods, while parents became more engaged in their children's educational experiences. Contextual differences between rural and urban areas underscored the adaptability of this approach to diverse environments. Cultural responsiveness emerged as a critical factor in fostering inclusivity and meaningful learning engagement. This study demonstrates that integrating traditional games into teacher training can positively impact school readiness. Culturally responsive, play-based methodologies enrich educational experiences and serve as a guide for future research, policy development, and educational practice.

Keyword: Cultural Responsiveness, Early Childhood Education, School Readiness, Teacher Training Traditional Games.

Introduction

School readiness has become a central focus in contemporary early childhood education research and practice, emphasizing the need for children to possess foundational cognitive, socio-emotional, motor, linguistic, and physical skills essential for formal schooling. This holistic concept extends beyond mere academic preparation, aiming to equip children to transition seamlessly into structured learning environments and engage effectively with peers and educators. Over the years, the understanding of school readiness has evolved to include not only

cognitive and academic dimensions but also the socio-cultural and emotional components of early learning environments. Researchers, policymakers, and educators have highlighted the importance of fostering well-rounded development in children, ensuring they are prepared for the multifaceted demands of formal schooling. As such, there is an increasing need for pedagogical strategies that address multiple developmental domains in ways that are both contextually relevant and culturally responsive.

Integrating culturally resonant, play-

based learning strategies into early childhood curricula has emerged as a promising avenue for enhancing children's holistic development and school readiness. Among these strategies, the use of traditional games stands out as a powerful approach. Traditional games, deeply rooted in cultural heritage, offer a unique combination of moral, social, and cognitive benefits. These activities have been passed down through generations and carry distinct cultural values, moral lessons, and community knowledge. When used as pedagogical tools, traditional games serve as a bridge between cultural heritage and the evolving needs of modern education systems. By embedding such games into early childhood education programs, educators can provide children with opportunities to develop essential foundational skills while simultaneously fostering a deeper connection to their cultural identities. This approach not only promotes inclusivity and a sense of belonging but also emphasizes the importance of contextual learning, where new concepts are framed within familiar cultural narratives.

Despite the documented benefits of incorporating traditional games into educational frameworks, their utilization remains limited within formal teacher training programs and standardized curricula. Many early childhood educators rely on conventional teaching methods that often overlook the rich experiential learning opportunities embedded in local traditions. Barriers to the integration of traditional games include a lack of formal guidance, insufficient training resources, and limited empirical research outlining systematic approaches for their implementation. Moreover, many educators lack the confidence or knowledge to align these culturally embedded activities with established curricular goals or formal standards of school readiness. This gap in teacher preparation programs highlights the need for comprehensive modules that guide educators in the pedagogical adaptation of traditional games. Without such support, educators are often left to improvise or disregard these methods, resulting in missed opportunities to enrich early childhood

education through culturally responsive strategies.

The absence of a clear, replicable framework for incorporating traditional games into educational settings underscores a significant research gap. Existing literature suggests that traditional games can enhance motor development, foster social cooperation, support emotional self-regulation, improve language proficiency, and stimulate cognitive flexibility. However, these outcomes are often context-dependent and require systematic models to ensure reliability and scalability. Rural educational settings, for instance, may face logistical constraints such as limited infrastructure and a lack of qualified teachers trained in play-based strategies. Conversely, urban schools, while benefiting from better resources and administrative support, often struggle to preserve and integrate local cultural traditions amidst the pressures of globalization and curricular standardization. Understanding how to implement traditional games effectively across diverse environments—and how teacher training programs can be structured to facilitate their adoption—remains an underexplored area of inquiry.

Parental involvement further amplifies the potential benefits of integrating traditional games into early childhood education. As children's first educators, parents play a pivotal role in reinforcing the skills and values learned in school. They can provide unique cultural insights, bridge the gap between formal education and everyday experiences, and contribute to the continuity of learning at home. However, parental engagement often faces challenges such as logistical barriers, resource limitations, and communication gaps between families and schools. Addressing these challenges through flexible involvement models or community-driven workshops can enhance the sustainability and impact of culturally responsive interventions. When parents are actively involved, traditional games become more than just classroom activities—they evolve into tools that strengthen the connection between home and school, enriching the overall learning ecosystem.

Culturally responsive pedagogy, which emphasizes leveraging learners' cultural backgrounds, knowledge systems, and identities, provides a theoretical foundation for understanding the role of traditional games in promoting school readiness. By situating skill development within culturally familiar contexts, educators create more meaningful, engaging, and inclusive learning experiences. This approach aligns with the broader movement toward play-based learning, which is widely recognized as a cornerstone of early childhood education. Research consistently shows that children learn best when they are actively engaged in exploration, experimentation, and social interactions. Traditional games naturally incorporate these elements, fostering cooperation, turn-taking, negotiation, and creative problem-solving. Moreover, they support the development of cultural identity and community ties—critical aspects often neglected in conventional instructional methods.

Translating these insights into practical applications requires well-structured intervention models that guide educators in embedding traditional games into both teacher training programs and classroom curricula. The Maccule program, for example, represents a promising case study in this regard. This initiative integrates traditional Bugis games into teacher training and classroom activities, aiming to address multiple developmental domains while preserving local cultural expressions. By focusing on games such as Jengkal-jengkal and Paka' Karung, the program highlights the potential of traditional games to enhance motor, cognitive, social-emotional, and linguistic development. The program also emphasizes the importance of cultural authenticity, ensuring that educators understand the pedagogical principles underlying these activities. This dual focus on developmental outcomes and cultural preservation makes the Maccule program a relevant model for exploring the broader implications of integrating traditional games into early childhood education.

While anecdotal evidence and case studies suggest that culturally grounded,

play-based approaches can enhance engagement and skill acquisition, there is a pressing need for rigorous empirical evaluation. Systematic investigations can establish the effectiveness of such interventions, identify best practices, and clarify the conditions necessary for their success. Longitudinal studies, for example, can track the durability of developmental gains and their potential impact on later academic achievement. Comparative research can evaluate the relative efficacy of traditional games against conventional teaching methods or digital learning platforms. Furthermore, mixed-methods designs can provide a comprehensive understanding of both the quantitative improvements in developmental domains and the qualitative experiences of children, teachers, and parents.

Research Methods

This study employed a mixed-methods sequential explanatory design to evaluate the integration of traditional games into teacher training programs and their impact on school readiness. The mixed-methods approach allowed for a comprehensive examination by combining quantitative assessments of developmental outcomes with qualitative insights into participants' experiences and perceptions. This approach enabled the study to address the multifaceted nature of early childhood education interventions within culturally diverse contexts.

The research focused on enhancing early childhood educators' abilities to foster holistic child development. The study emphasized the interplay of culturally responsive play-based pedagogy and parental engagement as crucial elements for promoting school readiness. Participants included early childhood educators, children aged 4–8 years, and their parents, from both urban and rural settings. Teachers underwent training through the Maccule program, which systematically incorporated traditional Bugis games into teaching practices. These games were selected for their cultural relevance and ability to enhance motor, cognitive, social-emotional, and linguistic development. The intervention also

encouraged collaboration between teachers and parents to bridge home and school learning environments.

Data collection occurred in two phases. Pre-intervention assessments established a baseline of children's developmental skills, teacher efficacy, and parental involvement. Following a 12-week intervention, post-tests were conducted to measure changes in these areas. Classroom observations and focus group discussions with participants offered further qualitative insights into the effectiveness of the intervention. Instruments included school readiness assessment tools, teacher efficacy scales, parental engagement surveys, and observation checklists, ensuring a robust evaluation of both outcomes and processes.

Thematic analysis was used for qualitative data, while quantitative data were analyzed using statistical methods, including paired t-tests. Triangulation of methods, sources, and theories strengthened the validity of the findings. Ethical guidelines were rigorously followed, with informed consent obtained from all participants.

The study highlights the potential of integrating traditional games into teacher training to improve school readiness, underscoring the importance of cultural responsiveness and community engagement in early education.

This study uses a qualitative research method with a descriptive approach. Data were collected through interviews, observations, and documentation. Data analysis was carried out qualitatively using thematic analysis techniques. Qualitative research is research that aims to understand phenomena in depth by describing them in the form of words and language, in a specific natural context and by utilizing various natural methods (Cresswell, 2016; Moleong, 2014; Silverman, 2018). The subjects in this study were the principal, teachers, school committee, and students.

Results and Discussion

Research Results

This study examined the impact of integrating traditional games into teacher

training programs on children's school readiness, teacher competencies, and parental engagement. The results, derived from a mixed-methods approach, highlight the significant influence of culturally responsive, play-based pedagogy across various developmental domains. A total of 120 teachers, 150 children (aged 4–8 years), and 50 parents participated in the study, encompassing both urban and rural settings. Teachers, predominantly female with 2–15 years of experience, were selected based on their involvement in early education programs and willingness to adopt play-based methods. Children from their classrooms and parents engaged in guided activities to reinforce learning at home. The diverse socio-economic backgrounds of participants reflected the cultural and contextual variability that the intervention aimed to address.

The implementation of the traditional games intervention demonstrated high fidelity. Teachers incorporated Bugis traditional games into lesson plans over 12 weeks, aligning these activities with developmental goals. They adapted the games to classroom contexts, emphasizing their cultural significance and fostering a sense of belonging among students. Challenges such as limited access to materials in rural areas were mitigated through community contributions, enhancing the feasibility of the intervention in resource-constrained environments.

Children exhibited measurable improvements across motor, cognitive, social-emotional, and linguistic domains. Motor skills showed the highest gains, with children enhancing their balance, coordination, and spatial awareness through active participation in the games. Cognitive outcomes included better problem-solving abilities, pattern recognition, and sustained attention. Social-emotional skills improved significantly, with children demonstrating greater empathy, cooperation, and conflict resolution abilities. Linguistic skills showed moderate gains, supported by the narrative and storytelling aspects of the traditional games.

Urban and rural comparisons revealed contextual differences. Urban children displayed higher gains in cognitive and linguistic domains, likely due to better access to educational resources. Rural children excelled in motor and social-emotional skills, influenced by strong community ties and outdoor play traditions.

Teacher efficacy improved significantly, with educators reporting enhanced confidence in integrating play-based and culturally responsive teaching strategies. They embraced student-centered approaches, moving beyond didactic methods to foster active learning. Parental involvement also increased, with parents creating informal learning opportunities at home and engaging in school activities. Overall, the findings affirm the potential of traditional games to enhance holistic child development and foster meaningful connections between cultural heritage and education. The intervention's adaptability across diverse settings underscores its value in advancing equitable, quality early childhood education.

Discussion

This study explored the integration of traditional games into teacher training programs and examined its impacts on children's school readiness, teacher efficacy, and parental engagement. Using frameworks of play-based learning, culturally responsive pedagogy, and community involvement (Uludağ & Erkan, 2023; Suardi & Samad, 2021), the findings demonstrate that the strategic use of traditional games can significantly enhance holistic child development and smooth transitions into formal education. The discussion interprets the results, draws connections to existing literature, and outlines implications for policy and practice while addressing study limitations.

The quantitative findings revealed statistically significant improvements across children's motor, cognitive, social-emotional, and linguistic skills. These results align with research emphasizing play-based learning as a critical strategy in early childhood education (Thomas et al., 2011). Motor skills showed the highest improvement, with enhanced balance, coordination, and fine motor control—attributes essential for foundational learning tasks. These improvements affirm prior studies that underscore the role of structured play in supporting motor development (Friskawati, 2023). Cognitive gains were evident in children's increased problem-solving abilities, pattern recognition, and numeracy skills, further substantiating the claim that play-based, culturally embedded activities stimulate curiosity, creativity, and sustained attention (Zou, 2017).

Social-emotional development also improved notably, as children exhibited greater empathy, better conflict resolution skills, and stronger cooperation. These findings reinforce the importance of socio-emotional competence in academic success and social integration, as supported by earlier research linking culturally relevant play to emotional regulation and interpersonal skills (Grieshaber et al., 2021; Öngören & Gündoğdu, 2021). Linguistic improvements, though moderate, highlight the role of traditional games in fostering language development. The narrative elements and collaborative nature of games encouraged children to experiment with new vocabulary and engage in storytelling, validating research on the effectiveness of context-rich activities in language acquisition (Bird & Edwards, 2014).

A significant aspect of this study was the cultural responsiveness embedded in the intervention. By integrating traditional Bugis games into teacher training and classroom activities, educators validated children's cultural identities and enriched their learning experiences. Culturally responsive teaching has long been recognized as a method for enhancing engagement and fostering inclusivity (Aypay, 2016). The positive feedback from teachers and parents further underscores the value of aligning educational practices with cultural contexts, making the learning process relatable and meaningful for children.

Contextual differences between urban and rural settings highlighted the importance of tailored interventions. While urban schools showed higher gains in cognitive and linguistic domains, rural schools demonstrated pronounced improvements in motor and social-emotional skills. These variations reflect differences in resource availability, infrastructure, and community dynamics. Urban schools benefitted from better access to materials and exposure to diverse learning tools, whereas rural settings leveraged strong community ties and outdoor play traditions to reinforce developmental outcomes. These findings underscore the necessity of adaptive strategies that cater to local conditions while ensuring equitable access to quality education (Sulistyaningtyas & Fauziah, 2019; Uludağ & Erkan, 2023).

Teacher efficacy and pedagogical approaches also improved significantly following the intervention. Teachers gained confidence in integrating traditional games into their lesson plans and aligning these activities with curricular goals. This shift from didactic teaching to intentional, play-based methods demonstrates the potential of professional development programs to elevate teaching quality. The inclusion of culturally responsive frameworks further encouraged educators to reflect on their practices, value local knowledge, and design inclusive learning environments. These outcomes resonate with studies emphasizing the role of teacher training in enhancing educational effectiveness (Fonsén & Ukkonen-Mikkola, 2019).

Parental engagement emerged as another critical outcome of the intervention. Parents reported a better understanding of the educational value of traditional games and actively supported their children's learning at home. By bridging formal and informal learning environments, this engagement strengthened the home-school connection, contributing to children's holistic development. These findings align with research highlighting the importance of parental involvement in fostering academic and social success (Chowdhury & Rivalland, 2012; Tandang & Bakar, 2023). Moreover, parents expressed pride in seeing their cultural heritage integrated into school curricula, reinforcing the sense of community and shared responsibility for education.

The conceptual model proposed in this study illustrates the interconnectedness of traditional games, teacher training, and developmental outcomes. Enhanced teacher competencies, culturally responsive pedagogy, and parental involvement created a synergistic effect, supporting holistic child development and fostering school readiness. This model reflects global trends advocating for integrated and inclusive educational strategies that address multiple developmental domains (Yang et al., 2021).

Despite its promising findings, the study has several limitations. The intervention's duration, while sufficient for measuring immediate impacts, may not capture the long-term sustainability of developmental gains. Longitudinal research tracking children's progress into later educational stages could provide deeper insights into the durability of these outcomes. Additionally, the quasi-experimental design, while robust, lacks the randomization necessary for establishing causality definitively. Future studies might employ randomized controlled trials or more sophisticated matching techniques to strengthen causal inferences.

The generalizability of the findings to other cultural or linguistic contexts also warrants caution. While the Bugis games used in this study yielded positive results, their specific cultural cues and practices may not be directly applicable elsewhere. Replicating the intervention in diverse regions or with different traditional games could clarify its adaptability and scalability. Furthermore, resource disparities, particularly in rural settings, remain a challenge. Although community contributions mitigated material shortages, equitable resource allocation and support are critical for ensuring the success of such interventions across all contexts.

The incidental integration of STEM concepts during the intervention presents an opportunity for further exploration. Traditional games involving measurement, estimation, and problem-solving can serve as conduits for early STEM learning. Deliberate incorporation of STEM-related tasks and assessments could align with global educational priorities emphasizing critical thinking and innovation, preparing children for a rapidly evolving knowledge economy (Zou, 2017; Yang et al., 2021).

From a policy perspective, this study underscores the need to institutionalize training programs that emphasize traditional games and culturally responsive pedagogy within teacher education curricula. National and regional frameworks should provide guidelines for selecting, adapting, and implementing traditional games in alignment with curricular standards. Ongoing professional development opportunities and accessible resources are essential for maintaining high-quality, play-based learning environments.

For families and communities, the findings highlight the importance of collaboration and cultural recognition in education. Encouraging parental involvement, fostering open communication, and offering practical suggestions for home-based activities can strengthen the educational ecosystem. Community organizations and cultural institutions can play a supportive role by sharing resources, preserving traditional knowledge, and organizing events that reinforce the educational relevance of local traditions.

In conclusion, integrating traditional games into teacher training and classroom practices offers a powerful strategy for enhancing school readiness and holistic child development. By aligning educational practices with cultural contexts, building teacher competencies, and involving parents, this approach fosters inclusive, engaging, and developmentally supportive learning environments. Although further research is needed to explore long-term effects, cross-cultural applicability, and resource allocation strategies, the present findings provide valuable insights into how culturally responsive, play-based methods can advance the quality and equity of early childhood education. Through such innovative approaches, educational systems can cultivate meaningful learning experiences, paving the way for children's continued success and well-being.

Conclusion

This study highlights the transformative potential of integrating culturally relevant traditional games into teacher training programs to enhance children's school readiness. By utilizing play-based activities grounded in cultural contexts, significant improvements were observed across cognitive, motor, social-emotional, and linguistic domains. The approach also fostered greater teacher efficacy, intentional play-based teaching practices, and increased parental engagement, creating holistic and inclusive

learning environments.

The findings demonstrate that culturally responsive methodologies, coupled with professional development and community involvement, enrich early childhood education while addressing developmental needs and ensuring smoother transitions into formal schooling. This strategy underscores the importance of acknowledging local cultural practices and adapting educational approaches to diverse settings, promoting equity and reducing disparities.

This research contributes valuable insights into the effectiveness of culturally responsive, play-based learning strategies. Future studies could explore the long-term impacts of such interventions, their adaptability across cultures, and opportunities to integrate emerging technologies. These findings serve as a foundation for policymakers, educators, and practitioners committed to fostering dynamic, equitable, and culturally grounded early learning experiences.

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