



Integrating Traditional Games for Children Aged 10–15 as a Cultural Preservation Strategy in the Digital Era

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Abstract.

Background

The rapid advancement of digital culture has significantly transformed how individuals interact, communicate, and understand their environment. While the digital era offers numerous opportunities, it also poses serious challenges to the preservation of local cultural heritage, particularly traditional games. In Kelurahan Damai, Binjai Utara District, North Sumatra, a noticeable decline in awareness and practice of traditional games such as *terompa* and *engklek* among children aged 10–15 years has been observed. Most children are unfamiliar with the rules and mechanics of these games, as modern entertainment particularly online games dominates their daily activities.

Objectives

This community engagement initiative aims to promote the preservation and revitalization of traditional games (*terompa* and *engklek*) among children aged 10–15 in Kelurahan Damai by leveraging digital tools and cultural education

Methods

The activity utilized participatory and educative approaches involving direct interaction with local children through demonstrations, guided practice, and cultural storytelling sessions. Surveys and informal interviews were conducted prior to the program to assess the level of knowledge and interest in traditional games. Educational media integrating digital visual content were also introduced to support the learning and promotion of the games

Results

The program revealed that traditional games serve as valuable tools for enhancing children's physical development and motor skills while fostering cultural awareness. Participants demonstrated increased enthusiasm and understanding of *terompa* and *engklek*, and several expressed interest in sharing the knowledge with their peers. The introduction of digital content (videos and infographics) helped bridge generational gaps and made the learning process more engaging.

Conclusion

Traditional games such as *terompa* and *engklek* are vital cultural assets that contribute to children's holistic development. Their continued practice can counterbalance the negative impact of excessive online gaming. Sustainable efforts involving both physical engagement and digital promotion are essential to ensure these games do not vanish from Indonesia's cultural memory.

Keywords: Traditional game, Cultural preservation, Digital era, Children aged 10–15.

Received: June 30, 2025. Accepted: July 08, 2025

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How to Cite: Winata, D. C., Sary, D. M., Ginting, M. Z. G., Tumanggor, A. Z., Zebua, A. T., Akbar, M. G. A., & Debataraaja, C. (2025). Integrating traditional games for children aged 10–15 as a cultural preservation strategy in the digital era. *Nusantara Journal of Community Service (NJSC)*. 1 (1). 1-6.

INTRODUCTION

In the face of rapid globalization and technological development, human behavior is increasingly shifting toward individualism and reduced social interaction. The ease of digital access has encouraged many, especially the younger generation, to engage more with gadgets than with community-based physical activities (Alsaleh, 2024). This passive lifestyle has contributed to various health concerns and a general decline in physical movement among children. In communities such as Mabar and its surroundings, there is growing concern about the lack of awareness of healthy living practices, including regular exercise, balanced nutrition, and overall well-being (Garg, 2025). This behavioral shift poses a long-term threat to both individual and community health, particularly among children aged 10–15, who are in critical stages of physical and cognitive development (Yoshikawa et al., 2020).

In this context, higher education institutions in Indonesia—particularly Sekolah Tinggi Olahraga dan Kesehatan (STOK) Bina Guna hold a strategic role not only in delivering education and conducting research,

but also in fulfilling their social responsibilities through community engagement, as outlined in the Tri Dharma of Higher Education. The Higher Education Law (UU No. 20/2003) and national education policies emphasize that community service must be implemented in meaningful, structured ways to empower and educate society. Such programs are not merely charitable endeavors but academic contributions that promote intellectual and cultural growth in communities. One such approach is the revitalization of traditional games, which serve not only as a form of physical activity but also as a medium for cultural preservation and character building.

However, despite the cultural and developmental value of traditional games, their presence is rapidly diminishing in urban areas (Miller et al., 2011). (Wardani, 2022) Many children today are unfamiliar with classic Indonesian games such as *terompa* and *engklek*, which were once common sources of joy and physical engagement. A preliminary survey conducted in Kelurahan Damai, Binjai Utara, revealed that a majority of children aged 10–15 had little to no knowledge of these traditional games, let alone how to play them. This gap highlights a disconnect between generations and a loss of cultural identity caused by overreliance on digital entertainment, particularly online games (Van Sluijs et al., 2021).

To address this cultural and developmental gap, STOK Bina Guna initiated a community engagement program in collaboration with the local government of Kelurahan Damai, based on a signed memorandum of understanding. The program introduced traditional games to children aged 10–15, not only through direct demonstration and participation, but also via digital tools such as social media and video content. This method was designed to appeal to the current digital-native generation while simultaneously reintroducing the value of traditional physical play. By combining cultural education with digital engagement, the program aimed to raise awareness of local heritage and promote healthier, more active lifestyles among young people (Ahmad Zahari et al., 2024).

The purpose of this initiative was threefold: first, to reintroduce traditional games as a means of preserving cultural heritage and promoting physical activity; second, to foster children's interest and understanding of traditional games using digital cultural approaches; and third, to encourage long-term behavioral change toward healthier, socially engaging lifestyles. Through this integrative approach, the program sought not only to benefit individual participants but also to contribute to broader cultural sustainability and public health outcomes (UNESCO, 2023).

METHOD

Participant

(Sugiyono, 2012) The participants in this community service program consisted of two main groups. The first group included undergraduate students enrolled in the Recreational Sports course at Sekolah Tinggi Olahraga dan Kesehatan (STOK) Bina Guna, who were assigned various roles such as traditional game facilitators, group exercise instructors, and environmental activity coordinators. The second group comprised local children aged 10–15 years from Kelurahan Damai, Kecamatan Binjai Utara, Binjai City, North Sumatra. These children were the primary beneficiaries of the program and were selected through purposive sampling based on their availability and willingness to participate in the activities.

Research Design

This program adopted a participatory action approach embedded within the academic framework of community service. The activity was initiated as part of the Recreational Sports course under the supervision of the course lecturer. The implementation team was formed from enrolled students, who were divided into sub-groups based on specific responsibilities: leading traditional games (*terompa* and *engklek*), conducting exercise sessions, and organizing environmental cleaning activities. The program emphasized collaborative planning and coordination with local authorities to ensure that the activities aligned with community needs. The design focused on experiential learning for students and cultural enrichment for the children, carried out in a structured, scheduled, and efficient manner.



Figure 1. Community Service Flowchart

Data Analysis

(Arikunto, 2010) This community service program employed a qualitative, descriptive analysis approach. Data were gathered through direct observation, informal interviews, and reflective notes during and after the activities. The students and supervising lecturer documented participants' engagement levels, initial knowledge of traditional games, and their responses post-intervention. Since the purpose of this program was developmental rather than experimental, no statistical testing was applied. The findings were analyzed narratively to describe the outcomes, impact, and challenges of introducing traditional games as tools for cultural preservation and physical activity.

RESULTS AND DISCUSSION

Results

The community engagement activities were carried out in multiple stages. The initial phase began with a needs assessment, in which the team distributed questionnaires to mothers from a local *pengajian* (Islamic study group) to evaluate their awareness of healthy living habits, including diet and physical activity. The questionnaire aimed to identify their daily routines, food consumption patterns, and the frequency and understanding of physical exercise. Additionally, a similar instrument was distributed to children aged 10–15 years in the Mabar Hilir area of Medan, North Sumatra, to assess their physical activity levels and understanding of recreational sports.

The results revealed that 80% of the children surveyed reported awareness of the importance of healthy living and expressed a willingness to become part of active and health-conscious families. However, 20% believed that a healthy lifestyle could only be achieved in financially secure households. Furthermore, limited knowledge about recreational sports was observed, as many participants associated such activities only with outings or family picnics rather than structured physical exercise.

Data also indicated that children rarely engaged in physical activities unless they personally felt like doing so. Exercise was not considered a routine obligation. Additionally, responses from children aged 10–12 revealed that physical activity in Mabar Hilir was generally low. Most children lacked knowledge about traditional games or recreational sports options, resulting in sedentary behaviors dominated by television watching and gadget use.

Table 1 summarizes the descriptive statistics collected from the 57 respondents. The first variable shows a minimum score of 2.00, a maximum of 8.00, a mean of 3.90, and a standard deviation of 1.902, reflecting the general awareness of healthy living among participants. The second variable has a minimum of 9.87 and a maximum of 16.78, with a mean score of 13.80 and a standard deviation of 1.5678, indicating limited knowledge of health-promoting physical activities. The third variable, which pertains to the participants' physical exercise habits, recorded a minimum of 27, a maximum of 46.55, a mean of 13.4212, and a standard deviation of 10.9872. This suggests that exercise was not practiced consistently but only when personally desired. Lastly, the fourth variable assessing children's physical activity levels in Mabar Hilir presented a minimum of 8.00, a maximum of 20, a mean of 4.89, and a standard deviation of 11.0878, reinforcing the finding that most children had limited engagement in physical activity and spent their time indoors with electronic devices.

These initial findings provided the community engagement team with a strong foundation to design interventions tailored to the specific needs of the participants, aiming to promote healthy lifestyles and greater awareness of the benefits of recreational sports and physical activity in the community.

Tabel 1. Deskripsi Statistik

N	Minimum	Maksimum	Rerata	Standar Deviasi
57	2.00	8.00	3.90	1.902
57	9.87	16.78	13.80	1.5678
57	27	46.55	13.4212	10.9872
57	20	8.00	4.89	11,0878

Discussion

The community service project conducted by the team from Sekolah Tinggi Olahraga dan Kesehatan (STOK) Bina Guna was implemented over a two-month period, from May to June 2025, in Kelurahan Damai, Binjai Utara, North Sumatra. The program was structured in multiple stages, beginning with a workshop, followed by the distribution of questionnaires, simulation sessions of traditional games, and the final implementation phase involving direct community engagement. The main objective of the program was to educate and encourage the local community to adopt healthy living habits through recreational sports, which are accessible, enjoyable, and suitable for people of all ages.

Weekly activities were planned and executed, each designed to target different age groups within the community. In the first week, a group exercise session was conducted with children aged 10–15 years. The second week featured traditional games played with children aged 10–12 years, followed by different traditional games for children aged 12–15 years in the third week. In the fourth week, similar activities were held for younger children aged 6–10 years. Finally, in the last week, a group exercise session was organized for adults—both men and women living in Kelurahan Damai. This varied and age-specific programming ensured inclusive participation and broader impact.

The program also incorporated a theoretical analysis phase, including observation of community behavior and evaluation of participant responses. Pre- and post-program questionnaires were distributed to assess changes in awareness, understanding, and engagement with healthy lifestyle practices. The responses indicated a high level of enthusiasm from the community, with visible participation and support from local government officials. This strong backing highlights the community's recognition of the need for accessible, low-cost physical activity initiatives as a sustainable strategy for improving public health and social well-being.

The implementation of recreational sports and traditional games not only provided physical benefits but also helped in strengthening social bonds, preserving cultural heritage, and instilling positive habits in children and adults alike. The success of this community service initiative demonstrates the vital role of higher education institutions in promoting health literacy and supporting grassroots efforts toward healthier and more active lifestyles. Moreover, the integration of structured recreational activities into daily life offers an effective and culturally relevant approach to addressing sedentary behavior in both youth and adults.



Figure 2. Group photo during the traditional games activity

CONCLUSION

The community service activities carried out by the STOK Bina Guna team in Kelurahan Damai, Binjai Utara, North Sumatra, proceeded smoothly without significant obstacles. The program was fully supported by local village officials, including the village head, secretary, and residents, who participated enthusiastically. The community engaged in the activities from start to finish in an orderly manner. This was evidenced by the positive responses from participants, which became a key indicator of the program's success.

The questionnaires distributed before and after the activities served as a valuable guide in designing and organizing the entire program. The students fulfilled their responsibilities by helping the community find solutions to local issues—particularly in raising awareness about waste management and promoting a healthy lifestyle through recreational sports games.

These outcomes align with the objectives stated in the Introduction, demonstrating compatibility between the intended goals and the results achieved. Furthermore, the findings suggest promising prospects for developing future community service programs that integrate health education and environmental awareness through recreational sports. Such initiatives could serve as a foundation for extended studies and broader application in other communities.

ACKNOWLEDGMENT

The authors would like to express their sincere gratitude to STOK Bina Guna for providing full support in carrying out this community service activity. Special thanks are extended to the local government of Kelurahan Damai, Binjai Utara, North Sumatra, including the village head, secretary, and all community members who actively participated and contributed to the success of the program. Their enthusiasm and cooperation greatly facilitated the smooth implementation of the activities. This program was also made possible through the involvement of students who took part in offering solutions to local issues related to waste management and the promotion of a healthy lifestyle through recreational sports.

AUTHOR CONTRIBUTION STATEMENT

DCW designed the community service program and led the overall coordination of the project. DMS and MZGG contributed to field implementation and community engagement. AZT and ATZ assisted in data collection, documentation, and participant observation. MGAA was responsible for data analysis and the preparation of evaluation instruments. CD contributed to the manuscript drafting and final editing. All authors contributed to the review and approval of the final manuscript.

CONFLICT OF INTEREST AND FUNDING

The authors declare that there is no conflict of interest regarding the publication of this article.

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