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PETRA AKTIF: Traditional Games as an Alternative Physical Activity for Elementary School Children

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Abstract: *Traditional games offer accessible opportunities for physical activity, social interaction, and the introduction of local cultural practices among elementary school children. This study aimed to describe the implementation of PETRA AKTIF, a community service program introducing traditional games as alternative physical activities for elementary school students. Employing a qualitative descriptive approach, the program involved 28 third-grade students from Public Elementary School 3 Plumbon, Karanganyar Regency, Indonesia. Four traditional games were introduced: hopscotch, jump rope, fortress, and dragon snake. Data were collected through direct observation, interviews, and activity documentation and subsequently analyzed descriptively. Student satisfaction was assessed using a five-level response scale. The findings revealed that students participated in various physical movements, including jumping, walking, running, and balancing. Group activities also demonstrated observable communication, cooperation, coordination, and adherence to game rules. Satisfaction assessments indicated that 25–27 of the 28 participants reported being satisfied or very satisfied with each game. Furthermore, the activities provided students with direct exposure to traditional games as expressions of local wisdom. These findings suggest that PETRA AKTIF provides opportunities for physical engagement, peer interaction, and cultural familiarization, although improvements in physical fitness and social skills were not directly measured.*

Introduction

The increasing integration of digital technology into children's daily lives has substantially influenced recreational practices, leisure activities, and opportunities for physical engagement. Digital devices have become common sources of entertainment and educational content among elementary school students, raising concerns about prolonged screen exposure and the displacement of physically active play (Setiadi et al., 2024; Rayhan, 2026). Although digital technology offers educational benefits,

excessive engagement in screen-based activities may reduce opportunities for outdoor recreation, peer interaction, and participation in traditional games. Hanifah et al. (2023) highlighted concerns regarding sedentary behavior and insufficient physical activity among Indonesian children, emphasizing the importance of accessible opportunities for active participation. Similarly, Lestari et al. (2025) identified declining engagement with traditional games as a concern for physical activity and cultural preservation among elementary school students. These findings suggest that promoting active recreational experiences requires approaches that address both children's movement opportunities and their changing patterns of social participation. Within this context, traditional games represent an accessible educational resource that may complement school-based efforts to encourage physical engagement while maintaining connections with local cultural practices.

Regular physical activity constitutes an important component of children's physical development and general well-being. The World Health Organization (2020) recommends that children and adolescents aged 5–17 years engage in an average of at least 60 minutes of moderate- to vigorous-intensity physical activity per day across the week. However, providing appropriate opportunities for physical activity within educational environments remains an important practical consideration, particularly when activities must be engaging, affordable, and compatible with available facilities. Traditional games offer a potentially suitable approach because their rules and physical requirements incorporate fundamental movements, including running, jumping, balancing, and coordinating bodily movements. Ariyanto et al. (2020) examined the use of traditional games to support fundamental movement skills among elementary school students, while Nurseskasatmata et al. (2024) discussed their application in activities intended to promote motor engagement. Nasir et al. (2026) further explored the implementation of traditional games as an approach to addressing sedentary behavior. Although these studies provide a relevant foundation for incorporating traditional games into children's activities, their respective emphases on movement skills, motor activities, and sedentary behavior leave room for additional descriptive evidence concerning how different traditional games can be implemented collectively within a community-based educational program.

Beyond physical engagement, traditional games provide opportunities for social participation because many require interpersonal communication, cooperation, rule-following, and coordination among participants. Nugraha et al. (2018) examined the relationship between traditional games and elementary school students' social skills, whereas Istifarillah et al. (2022) investigated their application in supporting social interaction during physical education. Similarly, Syamsuddin et al. (2024) addressed the role of traditional sports games in social skills development, while Hutomo and Kurniawan (2025) discussed traditional games as learning media for developing social competencies. Collectively, these studies suggest that traditional games have educational relevance beyond physical movement. Nevertheless, the existing literature encompasses different educational settings, participant groups, game characteristics, and research approaches, making it necessary to distinguish experimentally assessed developmental outcomes from social behaviors directly observable during recreational activities. Furthermore, games differ in their interactional requirements. Activities involving individual movement, such as hopscotch and jump rope, create different opportunities for participation compared with group-oriented games that require shared strategies, communication, and collective coordination. Consequently, examining multiple traditional games within a single implementation setting may offer useful descriptive insights into the diverse forms of physical and social engagement they facilitate.

Traditional games also represent an important component of local cultural heritage, providing opportunities for younger generations to become familiar with recreational practices transmitted within their communities. Kurniawan (2018) discussed the educational relevance of traditional games as learning resources grounded in local wisdom, while Khodari and Nurhidayah (2025) emphasized their role in cultural preservation and community interaction. More recent initiatives have similarly explored traditional games as instruments for revitalizing cultural practices and promoting social participation among children (Baroroh et al., 2025; Lestari et al., 2025). Hartinawanti et al. (2026) further highlighted the limited familiarity of some elementary school students with traditional games, demonstrating the relevance of activities designed to reintroduce local recreational traditions. Nevertheless, cultural familiarization and the development of cultural awareness should be understood as distinct outcomes. Participation in traditional games provides direct exposure to cultural practices, but sustained cultural appreciation or preservation cannot be assumed without additional evidence. This distinction is

important when evaluating short-duration community service initiatives, in which immediate participation and observable interaction can be documented more directly than longer-term developmental or cultural outcomes.

Despite the growing literature on traditional games, an important implementation gap remains concerning the documentation of integrated, school-community initiatives that simultaneously examine physical participation, social interaction, student responses, and exposure to traditional cultural practices. Previous studies have provided valuable insights into particular developmental or educational dimensions, but their findings do not necessarily explain how these dimensions are experienced together during a specific community engagement activity. This gap is particularly relevant to Plumbon Village, Tawangmangu District, Karanganyar Regency, where preliminary field identification conducted during the Universitas Sebelas Maret Community Service Program indicated limited engagement in physical activities and traditional games among local elementary school children. In response to these conditions, the PETRA AKTIF program was developed to introduce four traditional games, namely hopscotch (*engklek*), jump rope (*lompat tali*), fortress (*bentengan*), and dragon snake (*ular naga*), through guided recreational activities. Rather than proposing a newly invented game or claiming an experimentally established intervention effect, the distinctive contribution of PETRA AKTIF lies in its context-specific integration of games with different movement and social interaction characteristics into a single community engagement program. The initiative also incorporates structured observations of student participation and interaction alongside descriptive assessments of student satisfaction, thereby providing complementary information about the implementation and immediate reception of the activities.

Based on this background, the present study aims to describe the implementation of PETRA AKTIF as a community-based initiative introducing traditional games as alternative physical activities for elementary school children. Specifically, it seeks to document the implementation of four traditional games, identify the forms of physical movement and social interaction observed during participation, describe students' involvement and satisfaction, and examine how the activities provide opportunities for familiarization with traditional games as expressions of local wisdom. The study adopts a descriptive perspective that emphasizes observable participation and immediate responses rather than establishing causal effects on physical fitness, motor development, or social competence. Its primary contribution is to provide contextually grounded evidence concerning the practical implementation and reception of an integrated traditional-game program involving elementary school students. By documenting the activities, participation patterns, and student responses, the findings may offer useful considerations for educators, schools, and community service practitioners seeking to incorporate culturally relevant and accessible recreational activities into elementary education.

Method

This article uses a qualitative descriptive approach with a community service activity method. The activity was carried out by students of the Community Service Program (KKN) of Sebelas Maret University (UNS) together with third-grade students of Plumbon 3 Elementary School, Plumbon Village, Tawangmangu District, Karanganyar Regency, on July 16, 2026, at the Plumbon Village Mini Field. This activity introduced traditional games as alternative physical activities, including hopscotch, forts, jump rope, and dragon snakes.

The activity implementation consists of preparation, implementation, and evaluation stages. The preparation stage includes determining participants, selecting a location, coordinating with the school, preparing necessary equipment, and organizing the groups and game area. The implementation stage begins with an introduction to the game and an explanation of the rules. Next, students participate in the game in groups with the guidance of KKN students.

Data were collected through direct observation, interviews, and documentation. Direct observation was conducted during the activity to obtain information regarding student engagement, physical activity, social interaction, and cooperation during the game. Interviews were used to obtain additional information regarding student responses to the activity, while documentation was used to support data on activity implementation. The data obtained were then analyzed descriptively to describe the implementation of PETRA AKTIF, student engagement, physical activity, social interaction, cooperation, and the introduction of traditional games as part of local wisdom.

Results and Discussion

Traditional games were played to encourage children to be more physically active, enhance their ability to interact and cooperate with their peers, and reintroduce traditional games as a form of local wisdom. Data for this activity was collected through direct observation, interviews, and documentation. The data were then analyzed qualitatively to determine the level of participant engagement, physical activity, interactions between participants, their ability to cooperate, and the children's understanding of traditional games.

Implementation of Traditional Games as Physical Activities for Children

Traditional games can be used to encourage children to be more physically active while creating a fun play environment (Ariyanto et al., 2020). The study explains that traditional games can help develop basic motor skills in elementary school students because these activities directly involve various body movements. This finding aligns with other studies showing that traditional games contribute to improving physical fitness and motor skills in elementary school students (Aulia et al., 2022; Fauzan et al., 2024; Nurseskasatmata et al., 2024). Based on observations and documentation during the activities, the traditional games were played in an open area, namely a field. This place provides sufficient space for students to move freely and interact with their peers.

Before the game began, the student mentor explained the rules and how to play. Afterward, the students were divided into groups to participate in the game together. This activity was carried out according to the planned methodology, which utilized traditional games as a means to encourage physical activity while reintroducing types of games that are currently rarely played by children. Figure 1 shows a student following an obstacle course set up on the sports field. During the activity, the student performed a number of movements, such as jumping, maintaining balance, and adjusting his body position. These movements encouraged students to be more physically active and, indirectly, helped develop their motor coordination and concentration while participating in the game.



Figure 1. Students are playing the game "engklek"
Source: Documentation of Group 299, KKN UNS

Jumping rope encourages physical activity and self-confidence in students.

Traditional games involving jumping can help stimulate the development of children's motor skills and encourage students to be more active in physical activities (Nurseskasatmata et al., 2024). This community engagement initiative demonstrates that traditional games can be a way to encourage physical activity among elementary school students. Jumping rope has also been reported to increase children's self-confidence, courage, and agility through the repetition of active jumping movements (Maulida & Amiruddin, 2025; Sirait et al., 2023). Figure 2 shows a student participating in a jump rope game with the assistance of a student. In this game, the student attempts to jump over a rope swung by two students. The jumping movement is repeated, ensuring that the student is directly involved in physical activity throughout the game. Jumping rope can also be played using simple, readily available equipment. Body movements while jumping rope follow the direction and rhythm of the rope.



Figure 2. Jump rope game in progress
Source: Documentation of Group 299, KKN UNS

Group games encourage social interaction and cooperation among students.

Traditional games played in groups can provide opportunities for students to develop social skills, such as cooperation, communication, responsibility, and interaction with peers (Nugraha et al., 2018). This shows that traditional games not only involve physical activity but also provide opportunities for students to interact and collaborate with their peers. These results are consistent with several studies showing that traditional group games are effective in improving social interaction skills and developing cooperative character traits in elementary school students (Istifarillah et al., 2022; Nevitaningrum et al., 2023; Syamsuddin et al., 2024). BBased on Figure 3, students are seen participating in a game in several groups and carrying out various activities together. The name of this game is Bentengan. In this game, students hold each other and try to maintain the balance of the group. This activity demonstrates interaction among students that requires communication, coordination, and cooperation throughout the game. Through group play, students are required to pay attention not only to their own actions, but also to the actions of their group members. Each student needs to pay attention to the movements of their classmates, obey the established rules, maintain their position, and help each other to achieve a common goal. In this activity, student mentors provide guidance and assistance to direct the course of the game, while the students are directly involved as the main participants.



Figure 3. Students are playing the game "fortress"
Source: Documentation of Group 299, KKN UNS

Dragon Snake and Group Interaction Among Students

Traditional games played in groups can provide opportunities for students to communicate and collaborate with their peers (Hutomo & Kurniawan, 2025). Through group games, students are required to obey rules, communicate with their peers, and coordinate their movements so that activities can run smoothly. Several studies have also shown that the dragon snake game has consistently been proven to improve social interaction, cooperation, and group coordination skills in school-age children (Ni'mah et

al., 2023; Sitorus et al., 2023; Nisa et al., 2023). Figure 4 shows the students standing in a circle holding hands, while the student mentor stands in the center of the circle.The nature of this activity means it's done in groups and requires the involvement of every member. Students must follow the instructor's instructions and maintain communication with the students next to them to ensure formation remains intact. Group play provides a different social experience than individual play. In addition to physical activity, students must also pay attention to their classmates' positions, listen to instructions, and coordinate their movements with those of their group members. These conditions provide opportunities for students to communicate and collaborate throughout the game.



Figure 4. Students are playing the "dragon snake" game.
Source: Documentation of Group 299, KKN UNS

Traditional Games as an Alternative Form of Physical Activity

Traditional games can provide opportunities for elementary school students to directly engage in various physical movements (Rahmat Ilahi et al., 2025). Previous research on traditional games has shown that these activities involve various forms of physical movement and can be utilized in activities that support children's physical activity, especially amidst increasing sedentary behavior due to gadget use in elementary school children (Landu et al., 2024; Rini et al., 2021; Jalilah, 2021).. Based on the documentation of these activities, it is clear that students performed a variety of movements, such as jumping, walking, running, maintaining balance, and moving together in groups. These diverse activities demonstrate that traditional games provide opportunities for students to experience various forms of physical movement while playing.

Increasing gadget use can lead to children having less time for physical activity and playing traditional games. Increasing gadget use can lead to children having less time for physical activity and playing traditional games. Therefore, traditional games played outdoors can be an alternative for children to move and engage in active play.Furthermore, research conducted by Nasir et al. (2026) showed that traditional games can be used as a means to reduce sedentary behavior among elementary school students. These results align with existing activities, as traditional games provide students with the opportunity to reduce sedentary activities and engage more in activities that require physical movement.

Traditional Games as an Introduction to Local Wisdom

Traditional games are not only related to physical activity but also constitute part of a cultural heritage that can be introduced to the younger generation through educational activities (Lestari et al., 2025). A program to reintroduce traditional games to elementary school students has shown that such activities can help encourage physical activity while fostering children's interest in the culture of their local community. Several other studies have also confirmed that traditional games can function as a learning resource based on local wisdom, as well as a means of cultural preservation and strengthening social interaction (Kurniawan, 2018; Khodari & Nurhidayah, 2025; Baroroh et al., 2025).During these activities, students were introduced to several traditional games, such as hopscotch, jump rope, fortification, and dragon snake. Through these activities, students experienced firsthand various forms

of traditional games played with their friends. In addition to involving physical movement, these games also provided opportunities for students to interact with other players.This activity aligns with the program's goal of reintroducing traditional games as part of local wisdom and providing students with firsthand experience with local cultural practices. Therefore, traditional games provide opportunities for students to engage in physical activity, interact with their peers, and learn about local cultural values.

Evaluation of Activity Implementation Based on Student Responses

Traditional games played live in a fun atmosphere can encourage students to actively participate in these activities (Ariyanto et al., 2020). A fun playful atmosphere has also been shown to play a significant role in increasing children's emotional and social engagement during activities (Aulia & Sudaryanti, 2023; Tasnim et al., 2022). Based on activity documentation, students appeared to be directly involved in the various games. In individual games, students attempted to follow established movements and rules. The students' active participation was evident in their involvement in various movements, forming groups, following instructions, and communicating with their peers. This demonstrates that traditional games can provide enjoyable play experiences involving physical movement and interaction with peers. The results of these activities align with the established objectives, namely observing the level of student engagement, physical activity, social interaction, cooperation, and the rediscovery of traditional games as part of local wisdom.

Table 1. Observation Results of the Implementation of Traditional Games

No.	Game Type	Activity Form	Field Findings	Developed Values
1	Hopscotch	Jumping following a pattern/trajectory	Students do jumping movements and maintain balance.	Balance, coordination, concentration
2	Jump rope	Jumping rope that is moved	Students actively jump by following the rope movements.	Agility, coordination, courage
3	Fortress	Group games	Students interact and work together with group members	Cooperation, communication, strategy
4	Dragon Snake	Group activities with joint formation	Students follow directions and maintain connection with friends.	Togetherness, communication, social interaction

Source: Results of observations and documentation of activities.

In general, the activities carried out showed that traditional games can be used as a means to encourage physical activity, social interaction, and introduce local traditions to elementary school students. The four games used had different rules, but all provided opportunities for students to engage in physical activity and interact directly with their peers. This finding is in line with research conducted by Nurseskasatmata et al. (2024), which explained that traditional games can be used to help develop elementary school students' motor skills. This is also supported by research conducted by Nugraha et al. (2018), which showed that traditional games are related to the development of students' social skills in elementary school learning activities.

Playing games in groups also provides opportunities for students to learn communication, cooperation, obey rules, respect their peers, and complete the game as a team. Thus, traditional games not only provide the benefits of physical activity but can also serve as educational activities that encompass various aspects of student development. According to existing documentation, these games are held in open spaces with students acting as assistants. The use of open spaces allows students to move more freely. Furthermore, these activities provide a different learning experience from typical classroom learning. Therefore, traditional games can be a simple, enjoyable, and relatively easy option for educational activities in the school environment.

Table 2. Student Responses and Level of Satisfaction towards Traditional Games

No.	Game Type	Student Responses to Traditional Games		
		Involvement	Satisfaction Level*)	Testimony
1	Hopscotch	28 students	STP=0; TP=0; N=1; P=5; SP=22	Happy because I can play while practicing balance
2	Jump rope	28 students	STP=0; TP=1; N=2; P=6; SP=19	Happy because I can jump while being helped by my older sibling
3	Fortress	28 students	STP=0; TP=0; N=3; P=7; SP=18	It's fun because you can play strategy games with friends.
4	Dragon Snake	28 students	STP=0; TP=0; N=2; P=4; SP=22	It's nice to be able to sing and hold hands with friends.

*STP = Very Dissatisfied; TP = Dissatisfied; N = normal; P = Satisfied; SP = Very Satisfied

Conclusion

The implementation of PETRA AKTIF demonstrated that traditional games can provide accessible and engaging opportunities for physical activity, social interaction, and cultural familiarization among elementary school students. Through the participation of 28 third-grade students in hopscotch, jump rope, fortress, and dragon snake, direct observations documented various physical movements, including jumping, running, walking, and balancing, alongside communication, cooperation, coordination, and adherence to established game rules. Student satisfaction assessments further indicated positive responses, with 25–27 participants reporting satisfaction or high satisfaction across the four activities. These findings suggest that integrating traditional games into community-based educational programs offers practical opportunities for active participation, peer interaction, and direct exposure to local cultural practices.

However, the findings should be interpreted within the limitations of a single-school implementation, a relatively small participant group, a short activity duration, and the absence of baseline measurements or longitudinal assessments. Consequently, the observed participation and interactions cannot be interpreted as evidence of measurable improvements in physical fitness, motor competence, or social development. Nevertheless, the program provides a contextually relevant example of incorporating traditional games into elementary school activities using accessible recreational resources. Future research should involve larger and more diverse participant groups, validated assessment instruments, and longitudinal or comparative designs to examine the sustained educational, physical, social, and cultural outcomes of traditional-game interventions.

Reference

Ariyanto, A., Triansyah, A., & Gustian, U. (2020). Penggunaan permainan tradisional untuk mendorong keterampilan gerak fundamental siswa Sekolah Dasar. Jurnal Pendidikan Jasmani Indonesia, 16(1), 78–91. https://doi.org/10.21831/jpji.v16i1.30785

Aulia, D., & Sudaryanti, S. (2023). Peran permainan tradisional dalam meningkatkan sosial emosional anak usia dini. Jurnal Obsesi: Jurnal Pendidikan Anak Usia Dini, 7(4), 4565–4574. https://doi.org/10.31004/obsesi.v7i4.4056

Aulia, W., Suryansah, S., & Januarto, O. B. (2022). Pengaruh permainan tradisional terhadap tingkat kebugaran jasmani siswa SMP: Literature review. Sport Science and Health, 4(1), 94–102. https://doi.org/10.17977/um062v4i12022p94-102

Baroroh, E. Z., Amalia, K., Fajrina, N., & Gentaria, W. (2025). Efektivitas permainan tradisional dalam meningkatkan interaksi sosial anak sekolah dasar: Studi eksperimental di SDN 34 Kota Pontianak. Jurnal Ilmu Sosial Humaniora Indonesia, 5(1), 93–101. https://doi.org/10.52436/1.jishi.294

Fauzan, S. D., Heynoek, F. P., Fathoni, A. F., & Fitriady, G. (2024). Pemetaan status gizi dan keterampilan motorik siswa sekolah dasar negeri kelas bawah di Kecamatan Sukun Kota Malang. Sport Science and Health, 6(8), 811–825. https://doi.org/10.17977/um062v6i82024p811-825

Istifarillah, K., Riyoko, E., & Fakhrudin, A. (2022). Efektivitas penerapan permainan tradisional terhadap kemampuan interaksi sosial siswa dalam pembelajaran PJOK kelas IV SD Negeri 1

Sungai Dua. Jurnal Pendidikan dan Konseling, 4(6), 12372–12378. https://doi.org/10.31004/jpdk.v4i6.10462

Jalilah, S. R. (2021). Analisis dampak penggunaan gadget terhadap perkembangan fisik dan perubahan perilaku pada anak sekolah dasar. Edukatif: Jurnal Ilmu Pendidikan, 4(1), 28–37. https://doi.org/10.31004/edukatif.v4i1.1716

Khodari, R., & Nurhidayah, S. (2025). Pemberdayaan kearifan lokal: Permainan tradisional sebagai upaya pelestarian budaya Nusantara serta sarana interaksi sosial masyarakat. Bima Abdi: Jurnal Pengabdian Masyarakat, 5(2), 494–501. https://doi.org/10.53299/bajpm.v5i2.2029

Kurniawan, M. R. (2018). Permainan tradisional Yogyakarta sebagai sumber belajar alternatif berbasis kearifan lokal bagi pembelajaran di sekolah dasar. Premiere Educandum: Jurnal Pendidikan Dasar dan Pembelajaran, 8(2), 178–188. https://doi.org/10.25273/pe.v8i2.2697

Landu, M. F., Suarni, N. K., & Margunayasa, I. G. (2024). Analisis dampak penggunaan gadget terhadap perkembangan fisik dan perubahan perilaku pada anak sekolah dasar. Jurnal Pendidikan, Sains, Geologi, dan Geofisika (GeoScienceEd Journal), 5(1), 107–133. https://doi.org/10.29303/goescienceed.v5i1.561

Maulida, N., & Amiruddin. (2025). Meningkatkan rasa percaya diri anak melalui permainan lompat tali. Ghulamuna: Journal of Early Childhood Education, 3(1), 38–45. https://doi.org/10.52185/ghulamuna.v3i1.543

Nevitaningrum, N., Mulyatno, C. B., & Nopembri, S. (2023). Implementasi pembelajaran pendidikan jasmani berbasis permainan tradisional dalam membentuk karakter peserta didik sekolah dasar. Jurnal Pendidikan Jasmani Indonesia, 19(1). https://doi.org/10.21831/jpji.v19i1.73492

Ni'mah, R., Saputri, S. W., & Atika, A. N. (2023). Pengaruh permainan tradisional ular naga panjang terhadap kemampuan interaksi sosial anak di KB Al-Irsyad Al-Islamiyyah Jember tahun ajaran 2022/2023. Yaa Bunayya: Jurnal Pendidikan Anak Usia Dini, 7(1), 53–60. https://doi.org/10.24853/yby.7.1.53-60

Nisa, I., Pasiningsih, & Ihsan. (2023). Meningkatkan kemampuan kerjasama anak usia 5–6 tahun melalui metode bermain kooperatif ular naga tipe team games tournament. Al Athfal: Jurnal Kajian Perkembangan Anak dan Manajemen Pendidikan Usia Dini, 6(2), 61–74. https://doi.org/10.52484/al_athfal.v6i2.546

Rini, N. M., Pratiwi, I. A., & Ahsin, M. N. (2021). Dampak penggunaan gadget terhadap perilaku sosial anak usia sekolah dasar. Jurnal Educatio, 7(3), 1236–1241. https://doi.org/10.31949/educatio.v7i3.1379

Sirait, C., Saragi, D., & Ndona, Y. (2023). Permainan tradisional lompat tali untuk meningkatkan kinestetic intelegency pada anak usia sekolah dasar. Jurnal Generasi Ceria Indonesia, 3(1), 212–215. https://doi.org/10.47709/geci.v1i2.3281

Sitorus, J., Saragi, D., & Ndona, Y. (2023). Implementasi permainan tradisional ular naga dalam menstimulasi kemampuan sosial kelas 1 SD Negeri 101912 Pagar Merbau. Jurnal Generasi Ceria Indonesia, 1(2), 130–136. https://doi.org/10.47709/geci.v1i2.3259

Syamsuddin, I. F., Hidayat, Y., & Carsiwan, C. (2024). Effectiveness of traditional sports games in social skills development. Jurnal Pendidikan Jasmani dan Olahraga, 9(1), 75–81. https://doi.org/10.17509/jpjo.v9i1.68226

Tasnim, A., Damayanti, E., & Afiif, A. (2022). Development of social skills with traditional games: An experimentation with the game Mallogo. Golden Age: Jurnal Ilmiah Tumbuh Kembang Anak Usia Dini, 7(1), 23–32. https://doi.org/10.14421/jga.2022.71-03

Hanifah, L., Nasrulloh, N., & Sufyan, D. L. (2023). Sedentary behavior and lack of physical activity among children in Indonesia. Children, 10(8), 1283. https://doi.org/10.3390/children10081283

Hartinawanti, Nurdin, D. F., & Doni, L. (2026). Penyuluhan permainan tradisional sebagai revitalisasi budaya lokal di SD Negeri 2 Jayabakti. Ruang Komunitas: Jurnal Pengabdian Masyarakat, 4(1), 11–20. https://doi.org/10.24252/rkjpm.v4i1.65943

Hutomo, L., & Kurniawan, W. R. (2025). Peran permainan tradisional sebagai media belajar pendidikan jasmani dalam mengembangkan keterampilan sosial siswa sekolah dasar. Pendas: Jurnal Ilmiah Pendidikan Dasar, 10(1), 228–239. https://doi.org/10.23969/jp.v10i01.23723

Ikatan Dokter Anak Indonesia. (2013). Aktivitas fisik pada anak. https://www.idai.or.id/artikel/seputar-kesehatan-anak/aktivitas-fisik-pada-anak

Lestari, I., Fahrizal, F., Amirzan, A., Hidayat, R., & Syatiri, M. (2025). Revitalisasi permainan tradisional sebagai warisan sejarah dalam mendorong aktivitas fisik anak sekolah dasar. PEDAMAS (Pengabdian Kepada Masyarakat), 3(3), 955–965. https://pekatpkm.my.id/index.php/JP/article/view/678

Nasir, I. M., Suherman, A., & Supriyadi, T. (2026). Implementation of traditional games to reduce sedentary behavior of elementary school students. Journal of Physical Education Health and Sport, 13(1). https://doi.org/10.15294/jpehs.v13i1.45746

Nugraha, Y. A., Handoyo, E., & Sulistyorini, S. (2018). Traditional game on the social skill of students in the Social Science learning of elementary school. Journal of Primary Education, 7(2). https://doi.org/10.15294/jpe.v7i2.23475

Nurseskasatmata, S. E., dkk. (2024). Pemanfaatan permainan tradisional sebagai upaya peningkatan aktivitas motorik pada siswa sekolah dasar negeri. Jurnal Peduli Masyarakat, 6(4), 2025–2032. https://doi.org/10.37287/jpm.v6i4.4700

Rayhan, M. (2026). Hubungan penggunaan gadget dengan aktivitas fisik pada peserta didik kelas atas SDN Sejati Kecamatan Moyudan Kabupaten Sleman. Jurnal Pendidikan Dasar dan Aktifitas Jasmani, 5(1), 14–23. https://journal.uny.ac.id/index.php/jpdaj/article/view/94986

Setiadi, F. M., Maryati, S., & Mubharokh, A. S. (2024). Analisis dampak penggunaan gadget terhadap perkembangan psikologis dan keagamaan anak usia dini (TK dan SD) dalam perspektif pendidikan agama Islam. Muaddib: Islamic Education Journal, 7(1), 1–11. https://doi.org/10.19109/muaddib.v7i1.24432

Rahmat Ilahi, Tunru, A. A., Pratiwi, Y. I., Mutmainah, S., & Hidayat, R. (2025). Pelatihan permainan tradisional pada peserta didik dalam upaya melestarikan budaya lokal. Jurnal Publikasi Pengabdian Masyarakat: Inovasi dan Pemberdayaan, 1(2), 74–88. https://doi.org/10.71049/tej0tr55

World Health Organization. (2020). WHO guidelines on physical activity and sedentary behaviour. https://www.who.int/publications/i/item/9789240015128