

## Beyond Fun and Games: Cultivating Socio-Emotional Abilities Through Cooperative Learning with Traditional Games

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**Abstract:** This study investigated the integration of traditional Indonesian games and cooperative learning strategies to cultivate socio-emotional abilities in junior high school students, challenging the notion that games are solely physical activities. Recognizing the inherent social aspects of traditional games, the research explored whether a structured cooperative learning approach could amplify their impact on crucial socio-emotional skills. Specifically, the study examined how cooperative learning elements—positive interdependence, individual accountability, and collaborative skills—were incorporated into the playing of Gobak Sodor and Bentengan to foster empathy, communication, conflict resolution, and self-regulation. Thirty junior high school students participated in a four-week experiment, totaling eight learning hours (360 minutes). Socio-emotional abilities were assessed using the Socio-emotional Questionnaire in Bahasa Indonesia (SEC-Q-INA) administered before and after the intervention. Contrary to expectations, the results indicated a statistically significant decrease in socio-emotional abilities from pre-test ( $60.03 \pm 6.04$ ) to post-test ( $56.10 \pm 9.45$ ) ( $p < 0.05$ ). This unexpected finding prompted a reflection on the research administration, suggesting that adverse factors experienced by students during the post-test may have influenced the results. Despite this anomaly, the study offers valuable insights into critical factors requiring careful consideration to mitigate bias in experimental research. Future research is recommended to investigate the long-term effects and optimal implementation of this integrated approach across diverse educational contexts, particularly with a focus on the limitations of self-report questionnaires.

**Keyword :** *Traditional Games; Cooperative Learning; Student; Socio-emotional Abilities*

### Introduction

The pivotal role of education in the advancement of a nation is obvious (Bykova et al., 2024). A robust and effective educational framework serves to cultivate a promising generation equipped to transcend the leadership capacities of their forerunners. A nation's dedication to educational advancement is noticeable through governmental fiscal commitment, exemplified by the Republic of Indonesia's substantial annual appropriation of 20% of its national fiscal plan to this vital sector (Rustiningrum & Digdowiseiso, 2023).



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This financial commitment underscores the Indonesian government's acknowledgement of education's indispensable function in the realization of its national aspiration to attain developed nation status by the year 2045. The National Education System Law delineates the comprehensive objectives of education, encompassing the holistic development of students' spiritual and religious comprehension, self-regulation, personal attributes, intellectual acuity, ethical integrity, and fundamental competencies requisite for individual efficacy and collective societal, national, and state exigencies(Chandra, 2023). Consequently, the pedagogical intent within this framework extends beyond the mere cultivation of intellectual capacity to encompass the instillation of robust moral fortitude and religious adherence, consistent with individual convictions. Acknowledging the salience of character development, frequently evaluated within the affective or attitudinal domain, this scholarly inquiry adopts a more expansive conceptualization, examining it through the theoretical construct of socio-emotional ability.

Socio-emotional ability encompasses a multifaceted set of skills that define an individual's capacity to navigate the complexities of their inner world and interpersonal interactions. At its core, it involves the ability to understand and manage one's own emotions, recognizing their nuances and developing effective strategies for regulation. Beyond self-awareness, socio-emotional competence extends to the realm of interpersonal relationships, enabling individuals to build and maintain healthy connections with others based on empathy, respect, and effective communication(Boon-Falleur et al., 2022; Geiger et al., 2021; Luna et al., 2021). Furthermore, it equips individuals with the crucial skills to make thoughtful and responsible decisions in diverse social situations, considering the perspectives and well-being of themselves and those around them. Possessing strong socio-emotional abilities is undeniably vital for students as they mature and prepare to fulfill their roles as active and responsible citizens within their communities and the broader society.

When examined across various life scenarios, well-developed socio-emotional abilities yield a multitude of benefits for students, impacting both their academic pursuits and their socio-civic engagement. Academically, students with strong socio-emotional skills often demonstrate greater self-regulation, enabling them to focus on their studies, manage stress related to academic pressure, and persevere through challenges(Kiviruu et al., 2016; Luna et al., 2021; Mamani-Jilaja & Huayanca-Medina, 2023). Their ability to collaborate effectively with peers in group projects and engage constructively with teachers fosters a more positive and productive learning environment. Socio-civically, these students are better equipped to understand diverse perspectives, engage in respectful dialogue, and contribute meaningfully to their communities. Their capacity for empathy and social awareness promotes prosocial behaviors and a greater sense of civic responsibility.

Moreover, students who possess well-honed socio-emotional abilities tend to cultivate more positive and supportive relationships with their peers, teachers, and family members. Their capacity for empathy, active listening, and conflict resolution allows them to navigate social dynamics with greater ease and build stronger connections. This sense of belonging and support fosters a feeling of acceptance and validation, which in turn significantly contributes to their overall well-being and reduces feelings of isolation. Furthermore, a substantial body of research indicates a strong correlation between robust socio-emotional abilities and a reduced vulnerability to mental health challenges. Students who are adept at managing their emotions, building healthy relationships, and coping with stress tend to exhibit a lower risk of experiencing mental health issues such as anxiety, depression, and other forms of psychological distress. This underscores the critical role of socio-emotional development in fostering not only academic and social success but also in promoting the overall mental health and resilience of students (Azizan et al., 2021).

One avenue for the cultivation of students' socio-emotional competencies lies in the engagement with traditional games. These sporting activities, imbued with the intrinsic values of mutual cooperation, collaborative endeavor, and reciprocal respect, present substantial potential for the advancement of students' socio-emotional capacities. Traditional games frequently necessitate intensive social interaction, wherein students acquire proficiencies in collaborative teamwork, healthy competition, and the appreciation of individual differences. Furthermore, the incorporation of traditional games within the educational curriculum can be construed as a strategy for the preservation of local culture and heritage. As widely acknowledged, traditional games constitute an integral component of a nation's cultural fabric. Through the study and practice of these sporting forms, students can develop a more profound appreciation and contribute to the conservation of their national cultural legacy. Moreover, traditional games afford supplementary benefits for students, notably in the augmentation of physical aptitude and overall health. This is attributable to the complex movements and demands for refined bodily coordination inherent in many traditional games, thereby fostering students' physical fitness. Regular physical engagement through traditional games can also serve as a prophylactic measure against various non-communicable diseases, such as obesity, diabetes mellitus, and cardiovascular ailments.

Efforts to cultivate students' socio-emotional abilities can be effectively implemented through the strategic integration of traditional games within the physical education, sports, and health (PJOK) curriculum. As a fundamental component of formal curricular activities, PJOK offers a valuable framework to systematically organize and present traditional games, ensuring a more structured approach to planning, delivering engaging learning experiences, and conducting comprehensive assessments of learning outcomes. This integration allows educators to move beyond the spontaneous

play often associated with traditional games and harness their inherent social and emotional potential within an educational context.

One particularly promising pedagogical approach for delivering traditional games within the PJOK framework is cooperative learning. This instructional strategy centers on fostering collaboration among students as they work together in small, intentionally structured groups to achieve shared learning goals (Cañabate et al., 2021; Casey & Goodyear, 2015; Fohlin et al., 2021). Through the deliberate application of cooperative learning principles, students actively engage in helping one another, freely exchanging ideas and perspectives, and collectively assuming responsibility for the overall success of their group endeavors. This collaborative environment naturally encourages the development of crucial socio-emotional skills such as effective communication, active listening, empathy, conflict resolution, and shared decision-making.

The synergistic combination of the rich social interaction embedded within traditional games and the structured collaborative dynamics of the cooperative learning approach holds significant promise for enhancing students' socio-emotional abilities. Traditional games often inherently require teamwork, negotiation, and understanding of others' roles and perspectives. When these games are facilitated using cooperative learning strategies, the opportunities for students to practice and internalize essential socio-emotional competencies are amplified. The structured group work encourages positive interdependence, where students realize that their individual success is linked to the success of their group, thus fostering a sense of shared responsibility and mutual support. This powerful synergy can create a dynamic and engaging learning environment that not only promotes physical activity and cultural awareness but also actively nurtures the holistic development of students' socio-emotional well-being.

Despite a considerable body of research highlighting the crucial role of socio-emotional abilities in student development and the demonstrated effectiveness of cooperative learning as a pedagogical strategy, empirical investigations that specifically integrate traditional games within a cooperative learning framework to foster students' socio-emotional growth remain comparatively scarce. Recognizing this existing knowledge gap, the present research aims to contribute to the field by implementing traditional games delivered through a cooperative learning approach, with the specific objective of yielding significant benefits for students' socio-emotional abilities. This study seeks to provide empirical evidence on the potential synergy between these two promising educational elements.

## **Method**

This research employed a quantitative approach with a quasi-experimental one-group pre-post test design to investigate the impact of implementing traditional games on students' socio-

emotional abilities. The traditional games selected for this study were Gobak Sodor and Bentengan. A cooperative learning approach was integrated into the intervention, leveraging its established effectiveness in fostering social bonds among students. The participants comprised 30 seventh-grade students from a single class at SMP Muhammadiyah 1 Temanggung. The independent variable was the implementation of traditional games through cooperative learning, and the dependent variable was students' socio-emotional abilities. The intervention was conducted over 8 learning hours, encompassing lessons focused on Gobak Sodor and Bentengan. Each lesson commenced with the teacher explaining the rules, necessary equipment, and benefits of playing the respective traditional game. The teacher also demonstrated essential technical skills required for participation. Subsequently, students practiced these skills under the teacher's guidance before engaging in match simulations.

Quantitative data on socio-emotional abilities were collected using the SEC-Q-INA questionnaire. This questionnaire demonstrated good validity, with content validity ( $V > 0.8$ ) and face validity established through Pearson correlation ( $r > 0.266$ ;  $p < 0.05$ ). Reliability was confirmed with a Cronbach's Alpha coefficient ( $\alpha > 0.8$ ). Data were collected at two time points: pre-test and post-test. The data analyzed in this research were complete datasets reflecting the conditions before and after the traditional games intervention. The collected data will subsequently be analyzed using paired t-test calculations.

The paired t-test is an inferential statistical test employed to compare the means of two related data sets. The related data refer to measurements obtained from the same subjects at two distinct time points, specifically the pre-test and post-test. The primary objective of the paired t-test is to determine whether there is a statistically significant difference between the means of these paired data sets. In the context of this research, the aim is to ascertain whether a significant improvement occurred in students' socio-emotional abilities following the intervention program.

## **Results And Discussion**

The impact of traditional games learning on students' socio-emotional abilities was analysed using the Socio-Emotional Questionnaire (SEC-Q). Data were collected through measurements administered prior to the intervention (pre-test) and immediately following its completion (post-test). Descriptive analysis of the collected data revealed a pre-test mean score of 60.03 with a standard deviation of 6.04, while the post-test yielded a mean score of 56.10 with a standard deviation of 9.47. To formally test the research hypotheses regarding changes in socio-emotional abilities, an analysis of mean differences was conducted. However, preliminary statistical tests indicated that the data did not meet the assumptions of normality. Consequently, a non-parametric statistical approach was deemed appropriate, and the Wilcoxon signed-rank

test was employed to compare the paired pre-test and post-test scores. The results of the Wilcoxon test revealed a statistically significant difference between the average pre-test and post-test scores for the socio-emotional variable ( $p < 0.05$ ). Notably, the pre-test scores exhibited a higher average than the post-test scores, with a mean difference of 3.93. This statistically significant negative mean difference indicates a decrease in self-reported socio-emotional performance following the implementation of the traditional games learning intervention. This finding suggests that, contrary to potential expectations or prior research suggesting the prosocial benefits of play, the specific implementation of traditional games learning in this study was associated with a statistically significant decline in the students' self-reported socio-emotional abilities as measured by the SEC-Q instrument.

**Table 1. Descriptive Statistics**

	<b>N</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>SD</b>
Pretest	30	49	71	60.03	6.04
Post test	30	34	73	56.10	9.45

The observed decrease in students' socio-emotional abilities following participation in traditional games learning presents a counterintuitive finding, particularly given that the learning activities were intentionally designed to enhance these very skills. This unexpected outcome prompts a critical reflection on the implementation of the learning intervention and the methodologies employed for pre-test and post-test data collection. While the quality of the instrument itself, the Socio-Emotional Questionnaire (SEC-Q), was not a primary concern due to its established prior validation and reliability, the circumstances surrounding its administration warrant closer scrutiny. Specifically, the inconsistencies in the timing and environment of questionnaire completion between the pre-test and post-test phases appear to be significant contributing factors to the observed decline.

During the initial pre-test administration, students completed the SEC-Q before commencing any learning activities. This assessment took place within the controlled and relatively calm environment of their regular classroom, likely providing a conducive setting for thoughtful and focused responses. In stark contrast, the post-learning measurements were conducted outdoors on an open sports field, concurrently with the assessment of other variables, including measures of physical condition. It is highly plausible that the physical fatigue experienced by students after engaging in traditional games and physical exertion significantly impacted the quality and thoughtfulness of their responses on the SEC-Q. The students on this research are required to fill another four questionnaires not related to this publication. The demanding schedule of completing five instruments in total within a compressed two-hour learning session on that particular day may have further exacerbated student boredom and cognitive overload, potentially compromising the validity and reliability of the collected socio-emotional data. In large-scale assessments, meticulously

mitigating these effects of fatigue and saturation is paramount to ensuring the objectivity and accuracy of the collected data.

Beyond the issue of time management and student fatigue, the disparity in testing locations between the pre-test and post-test may offer an additional explanation for the observed results. The administration of the pre-test within the quiet confines of a classroom likely minimized external distractions and allowed students to concentrate fully on the questionnaire items. Conversely, the post-test environment on an open sports field was potentially subject to various external interferences, such as highway traffic noise from a nearby road. Such auditory distractions could have significantly impeded students' ability to focus on the questionnaire, leading to rushed or less considered responses. To enhance the rigor and comparability of data in future large-scale studies, it is crucial to standardize the testing environment by consistently administering questionnaires within the controlled setting of a classroom for both pre-test and post-test assessments. Addressing these methodological inconsistencies will contribute to a more accurate and reliable evaluation of the impact of the intervention on students' socio-emotional development.

While the research findings diverged from the initial hypothesis, the author firmly believes that participation in sports provides a significant and multifaceted pathway for the development of students' crucial socio-emotional skills. This belief is deeply rooted in the fundamental characteristics inherent in sports, especially those involving teams. These activities emphasize the critical importance of seamless cooperation and dynamic synergy among players, not merely as desirable traits but as essential prerequisites for attaining collective success and achieving victory in team sports.

Through the dynamic and often challenging environment of sports, students gain invaluable opportunities to learn and practice the vital skill of managing their own emotions - navigating the highs of triumph, the lows of defeat, and the inevitable frustrations and pressures of competition. Simultaneously, they actively cultivate and strengthen social connections with their peers, forging bonds of solidarity and mutual respect. These interactions extend beyond the structured context of games on the field or court, permeating their social lives off the field, fostering a sense of belonging, shared experience, and collaborative spirit (Apostolakis et al., 2016; Astuti & Prajana, 2019; Audiffred-Hinojosa & Hernandez-Aguilar, 2022).

Furthermore, a robust body of prior research lends credence to this perspective, consistently indicating that the benefits of engaging in sports activities within the school setting extend far beyond the realm of physical health (Cecilia et al., 2015; Kivuruusu et al., 2016; Luna et al., 2021; Syaukani et al., 2023). These studies highlight the substantial contributions of sports to students' holistic well-being, positively impacting their mental resilience, emotional intelligence, and capacity for healthy social interaction and relationship building. This suggests that sports serve as a powerful pedagogical tool, nurturing not only the physical but also the intricate web of socio-emotional competencies essential for navigating the complexities of life.

## **Conclusions**

This study, investigating the impact of traditional games delivered through cooperative learning on students' socio-emotional abilities, yielded findings that diverged from the initial hypothesis of a positive enhancement. These results underscore critical considerations for the design and execution of experimental research in educational settings, particularly concerning the measurement of sensitive constructs like socio-emotional abilities. The observed decline in post-intervention scores highlights the significant influence of contextual factors during data collection. Internal student states, including physical fatigue potentially induced by the intervention activities, alongside their understanding of the assessment process and overall motivation, warrant careful consideration in future studies. Furthermore, external environmental conditions, such as adverse weather and ambient noise, present potential confounding variables that can compromise the validity and reliability of self-report measures.

Drawing upon the lessons learned, this research informs the following key recommendations for subsequent investigations in this area. Firstly, meticulous planning of the data collection phase is paramount, with specific attention to minimizing extraneous influences on student responses. This includes ensuring adequate student rest prior to assessment, providing clear and comprehensive instructions for questionnaire completion, and fostering a focused and comfortable testing environment, ideally within controlled indoor settings. Secondly, future research should prioritize methodological enhancements, most notably the inclusion of a control group to establish a baseline and more accurately attribute any observed changes to the intervention itself. Expanding the sample size would also increase the statistical power of subsequent analyses and enhance the generalizability of findings. Finally, longitudinal studies could provide a more nuanced understanding of the long-term effects of traditional games and cooperative learning on socio-emotional development. By addressing these limitations, future research can build upon these lessons learned to provide more robust and conclusive evidence regarding the potential of traditional games to foster socio-emotional growth in adolescent learners.

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## **Author Contribution**

Conceptualization & methodology: Agam Akhmad Syaukani; investigation : Asha Hasnimy Mohd Hashim; writing–original draft preparation: Eko Sudarmanto.

### Conflict of Interest

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

### Data Availability

The datasets generated and/or analyzed during the current study are available from the corresponding author upon reasonable request.

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