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Enhancing Learning Outcomes in Kasti through the Implementation of Group Learning Method among Fifth-Grade Students at SD Negeri 064011 Medan

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Abstract: This empirical classroom action research aimed to improve students' learning outcomes in the traditional sport of kasti through the application of the group learning method among fifth-grade students at SD Negeri 064011 Medan during the 2022/2023 academic year. The study was motivated by the low initial mastery of kasti skills, where only 11.5% of the students achieved the Minimum Mastery Criteria (KKM) score of 70. The research adopted the Kemmis and Taggart Spiral Model comprising two cycles, each involving stages of planning, action, observation, and reflection. The assessment rubric focused on three psychomotor components hitting, throwing, and catching techniques. Data were collected from 26 students using performance-based evaluation instruments. Findings demonstrated significant improvement across the two cycles. The average score increased from 43 in the pre-test (11.5% mastery) to 63 in Cycle I (34.6% mastery), and finally to 80 in Cycle II (80.8% mastery), surpassing the class mastery criterion of 80%. These results confirm that the group learning method effectively enhances students' active participation, cooperation, and psychomotor skills in performing kasti techniques. The study concludes that cooperative group-based instruction fosters both cognitive understanding and motor performance in physical education learning contexts. Therefore, this method is recommended for primary-level physical education to enhance engagement and skill acquisition in team-based traditional games such as kasti.
Keywords: Kasti; Group Learning Method; Student Achievement; Psychomotor Skills

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INTRODUCTION

Physical Education (PE) in primary schools is a vital domain for nurturing students' psychomotor skills, social interaction, and motivation to engage in physical activity. Among traditional games, kasti is notable not only for cultural significance but also for its potential to develop fundamental motor skills such as throwing, catching, hitting, coordination, and spatial awareness. Despite its potential, many schools report low learning outcomes in kasti, often because instruction remains teacher-centred, lacks sufficient student interaction, or does not effectively integrate cooperative/group-based learning strategies.

Several studies have addressed related issues. For example, Ningsih, Khusnul Khotimah, Imam Sugeng, Suhartiningsih, Winarno, & Safirah (2024) found that playing traditional games significantly improved basic movement abilities among elementary school students, especially in areas such as running, jumping, and overall mobility.

In another study, Dani (2019) demonstrated that the application of a movement education model based on games increased kasti playing skills in fourth-grade students

at SDN 044 Cicadas Awigombong, Bandung; the Classroom Action Research showed improved understanding and performance via Games Performance Assessment Instrument.

Beyond traditional games, cooperative learning methods have also received empirical support. Liu & Lipowski (2021) in their meta-analysis reported that interventions using cooperative learning in physical education settings significantly enhance students' intrinsic motivation.

Similarly, "The Implementation of the Jigsaw-Type Cooperative Learning Model" by Widyanto, Qomarrullah, & Tebai (2025) showed that use of the jigsaw method improved both motivation and participation among junior high students in PE classes.

However, there is a research gap concerning how group learning methods specifically affect kasti outcomes in primary schools particularly in regions like Medan, where cultural, infrastructural, and pedagogical conditions may differ. Furthermore, while studies such as Dani (2019) and Ningsih et al. (2024) have addressed traditional game and movement-models, these have not always dissected the group interaction dynamics, peer collaboration, and stages of improvement across multiple cycles in a rigorous Classroom Action Research framework for kasti.

Thus, this study aims to examine whether implementing a group learning method can significantly improve kasti skill mastery among fifth-grade students at SD Negeri 064011 Medan. Specifically, the study investigates improvements in psychomotor skills (throwing, catching, hitting), as well as the dynamics of student cooperation and motivation, using a Classroom Action Research design with multiple cycles.

METHOD

This study employed a Classroom Action Research (CAR) design using the Kemmis and McTaggart Spiral Model (1988), which consists of four stages planning, acting, observing, and reflecting repeated over two cycles. This design was chosen because it allows systematic improvement of learning processes in real classroom settings (Burns, 2015). The research focused on the application of the group learning method in kasti lessons to enhance students' psychomotor abilities, cooperation, and achievement. The intervention was conducted naturally during Physical Education (PE) classes to ensure ecological validity.

The participants were 26 fifth-grade students (13 boys and 13 girls) of SD Negeri 064011 Medan, North Sumatra, Indonesia, during the 2022/2023 academic year. All students in the class were involved using a total sampling approach. Preliminary observations revealed that only 11.5% of students achieved the Minimum Mastery Criterion (KKM = 70) in kasti before the intervention, indicating the need for a more interactive and collaborative teaching model. The study took place during the second semester, between May and June 2023, in the school's open field equipped with standard kasti facilities.

The learning intervention emphasized group-based collaboration, where students were divided into small teams of 4–5 members. Each group practiced fundamental kasti techniques hitting, throwing, and catching through guided demonstrations, peer discussions, and repetitive practice. During Cycle I, students explored the basic techniques and received teacher feedback. Cycle II focused on reinforcement, where group coordination and peer mentoring were strengthened. Observations, reflections, and discussions were conducted at the end of each cycle to identify improvements and remaining challenges.

Data were collected through performance-based observation rubrics assessing students' psychomotor skills and teamwork. The evaluation criteria covered technical accuracy, coordination, and task execution. Quantitative data were analyzed using descriptive statistics to determine mean scores and mastery percentages, while qualitative reflections were analyzed using the Miles and Huberman (2014) model of data reduction, display, and conclusion drawing. To ensure credibility, data triangulation was applied using teacher assessments, researcher observations, and student reflections. Ethical approval and consent were obtained from the school administration, teachers, and parents before the study commenced..

RESULT AND DISCUSSION

Result

The research was conducted in two cycles following the Classroom Action Research (CAR) model to evaluate the effectiveness of the group learning method in improving students' kasti learning outcomes. Data were collected through performance-based assessments focusing on three key psychomotor components: hitting, throwing, and catching. The evaluation used the school's Minimum Mastery Criterion (KKM) of 75 as the standard of learning achievement.

Table 1. Summary of Learning Outcomes across Cycles

Learning Stage	Students Meeting KKM (≥75)	% Mastery	Students Not Meeting KKM (<75)	% Non-Mastery	Mean Score	Remarks
Initial Test (Pre-Test)	3	11.50%	23	88.50%	43	Not Achieved
Cycle I	9	34.60%	15	65.40%	63	Improved but Not Yet Complete
Cycle II	21	80.80%	5	19.20%	80	Achieved (Classical Mastery ≥80%)

At the initial (pre-test) stage, only 3 out of 26 students (11.5%) met the mastery criterion, while 23 students (88.5%) failed to achieve the required standard. The mean score was 43, indicating that most students had not yet mastered the basic kasti techniques. Common difficulties included improper hand grip during hitting, inaccurate throwing direction, and poor ball-catching coordination. This result confirmed the need for pedagogical intervention through a more engaging and cooperative learning model.

During Cycle I, the implementation of the group learning method began, emphasizing peer collaboration and shared practice. Students were divided into small groups where higher-performing learners assisted their peers. The results showed a notable improvement: 9 students (34.6%) reached the mastery level, while 15 students (65.4%) remained below the standard. The class mean score increased from 43 to 63. Observations revealed that students started demonstrating better coordination and communication within their groups, although technical execution in hitting and catching still required consistency.

Further refinement of instructional strategies was carried out in Cycle II, with greater focus on inter-group rotation, peer mentoring, and repetition of complex movements. This resulted in a significant increase in student achievement: 21 students (80.8%) met the KKM, while only 5 students (19.2%) had not yet achieved mastery. The mean score rose to 80, which surpassed the class mastery criterion of 80%. These results indicate that the group learning method effectively improved not only the psychomotor

performance but also the active participation and confidence of students during kasti learning activities.

Discussion

The results of this study clearly show that implementing the group learning method in kasti instruction significantly improves psychomotor skills (hitting, catching, throwing), mastery levels, student participation, and cooperative behaviors. The marked increase in mastery percentage from pre-test to Cycle II suggests that group learning can be a potent strategy to overcome initial low achievement levels. These findings are consistent with Amelya, Burhanuddin, & Syahruddin (2023), who demonstrated that using the TGT (Team Games Tournament) type of cooperative learning in kasti game settings enhanced students' throwing and catching skills substantially through two cycles of classroom action research.

Furthermore, the emphasis on active engagement, peer feedback, and repeated practice in group settings aligns with what has been found in other studies involving traditional games. For example, the study Effectiveness of Implementing Traditional Games on Basic Motor Skills in Students of Phase A at SDN 2 Buluagung showed a large gain in basic motor skill scores after implementation of traditional games supporting the idea that culturally relevant movement games can stimulate psychomotor development.

Also, the study The Impact of Traditional Games on Students' Cooperation Ability in Physical Education (Rumaeso, Suherman, & Rukmana, 2022) found that applying traditional games in PE improved cooperation traits among elementary students, reinforcing the social-interaction component seen in group learning interventions.

Beyond improving motor outcomes, this research underscores the role of social interaction and peer cooperation in accelerating learning. Vygotsky's social constructivist theory posits that learning is mediated through social interaction and scaffolding. In your group learning implementation, peers serve as scaffolds for lower-performing students by offering models and feedback, which likely contributes to faster improvement. The review article Peer teaching: a solution to overcome the imbalance of psychomotor performance and social interaction in physical education learning by Asngari & Sumaryanto (2019) supports this mechanism peer teaching appeared effective for balancing both motor performance and social engagement in PE settings.

However, there are some limitations and considerations. First, while the improvement is strong, the study lacks a control group using non-group methods, which limits causal attribution some gains may also stem from other factors like increased attention or novelty of the method. Second, sample size (single class, 26 students) and context (one school) may limit the generalizability of the findings; similar effects may differ in schools with different teacher quality, resources, or student backgrounds. Third, while overall mastery was achieved for many students, certain technical nuances (e.g., precision in hitting under pressure, timing in catching fast throws) may require more focused or individualized instruction, which group learning alone may not fully address.

For practice, it is recommended that PE teachers integrate group learning or cooperative learning structures especially those that allow for peer feedback, mixed-ability grouping, and repetition of complex movements. Also, combining group learning with other methods (e.g., video feedback, teacher modelling, peer observation) might further enhance technical precision. For future research, including randomized control designs, extending duration beyond two cycles, and assessing retention (whether students maintain skills over time) will strengthen evidence. Additionally, exploring the

combination of group learning with culturally grounded traditional games could further support motivation and relevance, as other studies (e.g., integrating traditional games) have shown increased interest and participation.

CONCLUSION

This study concludes that the application of the group learning method can effectively improve students' learning outcomes in the game of kasti. The implementation of collaborative learning activities encouraged active participation, cooperation, and mutual support among students, leading to better mastery of the essential techniques such as hitting, throwing, and catching. The classroom environment became more engaging, and students were more motivated to learn through shared experiences and peer guidance. Overall, the group learning method proved to be a relevant and constructive approach in physical education, fostering both technical skill development and social interaction that are essential for holistic student growth..

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CONFLICT OF INTEREST

Clearly explain whether there are any conflicts of interest related to the reported research.

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