



The Effect of Kasti Throwing and Catching Practice on Overhand Throwing Skills of Fifth-Grade Students at SD Negeri 064011 Medan

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Abstract

Objectives:

The purpose of this study is to determine the effect of rounders (ball tossing and catching) practice on the high throw technique skills of fifth grade students at SD Negeri 064011 Medan during the 2025/2026 academic year.

Materials and Methods:

The study employed a quasi experimental design, specifically a one group pretest posttest design. The sample consisted of 31 fifth grade students comprising 17 boys and 14 girls selected using the total sampling technique.

Results:

The research results show that the average pretest score of 11.2 increased to 17.6 on the posttest, with a mean difference of 6.4.

Conclusions:

Based on these results, it can be concluded that the kasti ball throwing and catching practice has a significant effect on the high throw technique skills of fifth grade students at SD Negeri 064011 Medan during the 2025/2026 academic year.

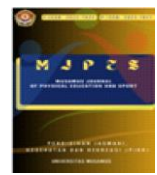
Keywords: Throwing and Catching Practice; Kasti Ball Game; Overhand Throwing; Motor Skills; Elementary School.

Introduction

Physical Education, Sports, and Health (PJOK) is an integral part of the education system that plays an important role in developing students' physical, psychomotor, cognitive, and affective aspects holistically. Through PJOK learning, students are expected to improve their physical fitness, motor skills, as well as sportsmanship and cooperation in sports activities. According to Mashud (2019), physical education is not merely oriented toward physical activities but also aims to foster students' holistic development through planned and systematic movement activities. Therefore, PJOK learning should be systematically designed and adapted to the developmental characteristics of students.

At the elementary school level, PJOK learning plays an important role in establishing the foundation of children's motor skills. Elementary school is a crucial period for the development of fundamental movement skills, which serve as the foundation for sports skills at later stages. Mustafa and Dwiyo (2020) stated that physical education learning in elementary schools should provide varied movement experiences so that students can develop their motor skills optimally. Therefore, PJOK learning needs to provide activities that directly and repeatedly involve fundamental movements.

One of the materials taught in PJOK learning at the elementary school level is small ball games, including the traditional game of kasti. Kasti is a traditional game that is still frequently used in PJOK learning in Indonesian elementary schools because it is easy to implement, does not require complex facilities, and is suitable for students'



characteristics. In addition, this game contains fundamental movement elements, including locomotor, non locomotor, and manipulative movements. In kasti, students are required to master various basic techniques, such as throwing, catching, hitting, and running. Therefore, kasti is selected as one of the effective learning materials for developing students' movement skills.

However, in practice, kasti learning in elementary schools still faces various challenges. In general, basic kasti skills among elementary school students in Indonesia remain relatively low, particularly in manipulative skills such as throwing and catching. This condition is caused by a lack of structured practice, limited learning time, and teaching methods that tend to remain teacher centered. Many students are not accustomed to performing movements repeatedly, resulting in suboptimal mastery of basic techniques.

This condition also occurs at SD Negeri 064011 Medan. Based on preliminary observations, kasti learning has been implemented; however, it has not produced optimal results in students' mastery of basic techniques. Learning activities are still dominated by teacher explanations and limited practice, resulting in insufficient opportunities for students to practice. Consequently, many students have not been able to master the basic techniques of the game properly, particularly the throwing technique.

One of the important basic techniques in kasti is the overhand lob throw. The overhand lob throw is a throwing technique in which the ball follows an upward curved trajectory so that it can reach a target at a certain distance. This technique is important in the game for passing the ball to teammates and supporting the flow of play. However, in reality, the ability to perform the overhand lob throw among fifth grade students remains relatively low.

Based on the observation data, out of 31 fifth grade students at SD Negeri 064011 Medan, only 7 students were able to perform the overhand lob throw well and accurately toward the target. A total of 14 students still experienced difficulties because their throws did not reach the target, while the remaining 10 students made throws with inaccurate directions and appeared hesitant. Common errors included incorrect body positioning, insufficient arm swing, and poor eye hand coordination. These conditions indicate that students' overhand lob throwing skills still need to be improved.

The low level of these skills is influenced by several factors, one of which is the lack of variety and structure in the practice methods. The exercises provided have not emphasized systematic repetition of movements, resulting in students having difficulty understanding the movement stages correctly. In addition, the lack of practice activities that actively involve all students limits their opportunities to develop their skills. Sukadiyanto and Muluk (2020) stated that structured and repetitive training is an effective way to improve movement skills.

One form of exercise that can be used to address these problems is the kasti throwing and catching exercise. This exercise involves repeated throwing and catching activities, which can improve movement coordination, arm muscle strength, and throwing accuracy. Through this exercise, students can become accustomed to performing throwing movements using the correct technique. Furthermore, throwing and catching exercises are consistent with the characteristics of elementary school students, who generally enjoy play based activities, and therefore can increase learning motivation. The implementation of throwing and catching exercises in learning can also create a more active and enjoyable learning environment. Students can perform the exercises in pairs or groups, thereby improving social interaction and cooperation. Thus, students not only understand the technique theoretically but also gain direct movement experience through repeated practice.

Materials and Methods



Study Design

A research design is defined as the set of guidelines and instructions used to address a research problem; it is also referred to as the plan or blueprint that the researcher intends to follow when conducting the study. The specific type of research employed is a quasi experimental design specifically, a one group pretest posttest design which involves administering a pretest prior to the intervention..

Study Participants

The population for this study consisted of the 31 fifth grade students at State Elementary School (SD Negeri) 064011. All 31 fifth grade students at the school served as the sample; thus, the study involved the entire population without exception.

Study Organization

The data collection instrument used was the Child Ball Test, which involves throwing a ball against a wall and catching it for 30 seconds from a distance of 2 meters..

Statistical Analysis

Data analysis techniques included a normality test using the Shapiro Wilk test, a homogeneity test using Levene's test, and hypothesis testing using the paired sample t test.

Results

The results of the research conducted from May 5, 2026, to June 17, 2026, are presented in the following table:

Table 1. Descriptive Results of High Throwing Technique Skills among Grade V Students at SD Negeri 064011 Medan

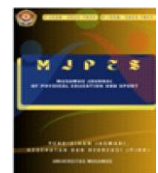
Information	N	Mean	Median	Modus	Std Dev	Min	Max
<i>Pretest</i>	31	11.2	12	13	4.1	1	16
<i>Posttest</i>	31	17.6	18	19	5.5	5	27

The research findings indicate that the students' high arc throwing technique improved following the implementation of a kasti (Indonesian rounders style game) catch and throw training program. In the pre test, the 31 students achieved a mean score of 11.2, a median of 12, a mode of 13, and a standard deviation of 4.1, with scores ranging from a minimum of 1 to a maximum of 16. Following the intervention, the post test results showed an increase: the mean score rose to 17.6, the median to 18, the mode to 19, and the standard deviation to 5.5, with scores ranging from a minimum of 5 to a maximum of 27. This improvement demonstrates that kasti catch and throw training effectively enhances the high arc throwing technique of fifth grade students at SD Negeri 064011 Medan.

The initial test (pre test) results regarding the high arc throwing technique of fifth grade students at SD Negeri 064011 Medan prior to the kasti catch and throw training program are presented in the following table.

Table 2. Frequency Distribution of Pre test Results for High Arc Throwing Technique Skills among Fifth Grade Students at SD Negeri 064011 Medan

No.	Intervals		Category	Frequency		Total	Presentation (%)
	Male	Female		Male	Female		
1	≤ 17	≤ 14	Very good	0	0	0	0%
2	14 16	11 13	Good	9	5	14	45%
3	11 13	8 10	Fair	7	3	10	32%



4	8 10	5 7	Poor	1	4	5	17%
5	≥ 7	≥ 4	Very Poor	0	2	2	6%
Total				17	14	31	100%

Based on the pre test results, the distribution of high throw technique skills among Grade V students at SD Negeri 064011 Medan prior to the implementation of rounders (ball throwing and catching) practice was determined. The Good category was the most dominant, comprising 14 students (45%): 9 boys and 5 girls. Next, the Moderate category included 10 students (32%): 7 boys and 3 girls. The Poor category contained 5 students (16%): 1 boy and 4 girls. The Very Poor category consisted of 2 students (6%), both of whom were girls. Meanwhile, no students fell into the Excellent category (0%).

Following the intervention (treatment), a post test was conducted to collect data and assess the high throw technique skills of the Grade V students at SD Negeri 064011 Medan; the results are presented in the following table:

Table 3. Frequency Distribution of Post test Results for High Throw Technique Skills among Grade V Students at SD Negeri 064011 Medan

No.	Intervals		Category	Frequency		Total	Presentation (%)
	Male	Female		Male	Female		
1	≤ 17	≤ 14	Very good	14	9	23	74%
2	14 16	11 13	Good	3	1	4	13%
3	11 – 13	8 10	Fair	0	1	1	3%
4	8 10	5 7	Poor	0	3	3	10%
5	≥ 7	≥ 4	Very Poor	0	0	0	0%
Total				17	14	31	100%

Based on the post test results, the distribution of high toss throwing skills among Grade V students at SD Negeri 064011 Medan following rounders (ball and bat game) catch and throw practice was determined. The excellent category was the most dominant, comprising 23 students (74%): 14 boys and 9 girls. Next, the good category included 4 students (13%): 3 boys and 1 girl. The poor category contained 3 students (10%), all of whom were girls. Meanwhile, the average category consisted of only 1 student (3%) a girl and no students fell into the very poor category (0%).

Discussion

This study aimed to determine the effect of throwing and catching training in the game of kasti on the overhead throwing technique skills of fifth grade students at SD Negeri 064011 Medan. Based on the results of the study conducted over eight training sessions, there was an improvement in students' ability to perform the overhead throwing technique after receiving throwing and catching training.

The descriptive analysis showed that the mean pre test score was 11.2, with the highest score of 16 and the lowest score of 1. After the treatment, the mean post test score increased to 17.6, with the highest score of 27 and the lowest score of 5. The increase in the mean score indicates that throwing and catching training in the game of kasti was able to improve students' overhead throwing technique skills. Based on the pre test frequency distribution, most students were in the good and moderate categories. After the treatment, the post test results showed a significant improvement, with most students



classified in the very good category. In the post test, 23 students (74%) were classified as very good, whereas no students reached this category in the pre test. These results indicate that throwing and catching training in the game of kasti had a positive impact on improving students' overhead throwing technique skills.

Theoretically, the improvement in overhead throwing skills occurred because throwing and catching training involves hand eye coordination, repeated movement practice, and continuous strengthening of the arm muscles. Through repeated practice, students became more proficient in controlling the direction, force, and accuracy of their throws, resulting in better overhead throwing performance. This is consistent with the view of Bompa and Buzzichelli, who state that regular and repetitive training can improve technical abilities and motor skills. In addition, throwing and catching training can improve hand eye coordination, which is an important factor in throwing skills. The better the students' coordination, the better their ability to direct the ball toward the intended target. Thus, throwing and catching training in the game of kasti not only improves throwing strength but also enhances students' accuracy and movement control when performing the overhead throwing technique.

Based on the research findings and supporting theories, it can be concluded that throwing and catching training in the game of kasti has a positive effect on the overhead throwing technique skills of fifth grade students at SD Negeri 064011 Medan. The more frequently students engage in structured and continuous throwing and catching training, the better their overhead throwing technique skills become. Therefore, the research hypothesis stating that throwing and catching training in the game of kasti has an effect on the overhead throwing technique skills of fifth grade students at SD Negeri 064011 Medan is accepted.

Conclusions

Based on the research findings and discussion regarding the impact of kasti (Indonesian rounders) throwing and catching practice on the high throw technique skills of fifth grade students at SD Negeri 064011 Medan, it can be concluded that such practice positively influences the improvement of students' high throw technique skills. This is evidenced by the increase in the average test score from 11.2 prior to the intervention (pre test) to 17.6 following the intervention (post test).

Furthermore, the frequency distribution results indicate an increase in the number of students falling into the excellent category after the practice sessions. Before the intervention, no students were in the excellent category, whereas after the intervention, 23 students (74%) achieved this classification. Thus, it can be stated that kasti throwing and catching practice is effective in improving the high throw technique skills of fifth grade students at SD Negeri 064011 Medan for the 2025/2026 academic year.

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Conflict of Interest

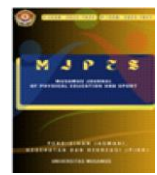
The authors declare no conflict of interest.

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