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# Effect of kasti ball games to improve basic pointing technique skills for petanque sports branches

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**Abstract:** Background: Petanque is a sport that relies on basic technical skills in the form of pointing, which requires motor coordination, throwing accuracy, and good concentration. However, in reality there are still many athletes who have difficulty in mastering these basic techniques due to the lack of a variety of exercises that are fun and involve motor elements as a whole. The baseball game is one of the traditional games that has a basic movement pattern similar to the pétanque technique, Throwing the ball towards the target, catching the ball, and running with regular and harmonious movements. The elements of movement in the baseball game also train accuracy, reaction speed, and concentration which play an important role in improving the ability of basic pétanque techniques.Objectives: This study aims to determine the effect of the baseball game on improving the basic techniques of pétanque sport.Methods: This study used a pseudo-experimental method with a one group pretest-posttest design. The research subjects consisted of 15 FOPI athletes from Cianjur Regency. The research instrument is a test of the ability of the basic pointing technique of pétanque sports with a distance of 6 meters, 7 meters, and 8 meters. Results: The data were analyzed using a paired sample t test to determine the difference in results before and after treatment. The results showed a significant increase in the ability of the basic pétanque technique after being given the treatment of the inscription ball game ($p < 0.05$).Conclusion: From the findings of this study, it can be seen that, the baseball game can be used as an alternative a training program that aims to improve pointing skills as a basic technique in the sport of pétanque. The conclusion of this study is that the baseball game has a positive effect on improving the basic techniques of pétanque sports.

**Keywords:** Baseball, Basic Techniques, Petanque Sport, Motor coordination.

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## Introduction

Petanque is a game that can be played by all people and all ages, which can be played for recreation because playing with family or friends, some as an achievement played in national or international championships. Petanque entered Indonesia in 2011, precisely at the 2011 SEA Games in Indonesia, the official federation that manages the sport of pétanque in Indonesia. is FOPI "Indonesian Petanque Sports Federation" established on March 18, 2011 at that time all athletes from the Palembang area because at that time the seagames veneu for the petanque branch the location is in Palembang, in the Jakabaring area (Juhanis et al., 2019). Pétanque is a

sport whose main objective is to throw a metal the ball is aimed to be close to a small wooden ball called a cochonet. The position of the thrower's feet must be inside the small circle that has been set (Permadi et al., 2020). Petanque is a sport that has 12 match numbers, namely Shooting Man, Shooting Woman, Single Man, Single Woman, Double Man, Double Woman, Double Mix, Triple Man, Triple Woman, Triple Mix 1 Woman 2 Man, Triple Mix 1 Man 2 Woman, and Team. In the sport of pétanque there are two types of throwing techniques used. One of the initial techniques is pointing, which is how a player or team directs the ball to get closer to the targe (Bustomi et al., 2020). The second technique is shooting, which is a way to release the ball with the aim of keeping the opponent's ball away from the target, which can be done in a standing or squatting position (Eko Cahyono & Nurkholis, 2018).

One of the p ointing techniques is the most influential in a game because it involves a high accuracy aspect so that it can place the bosi at the right point (Pelana, 2020). In addition to the pointing technique number, another one that is also important is the shooting technique. In this shooting pretition match number that can make Indonesia proud at the Singapore Sea Games in 2015 (Sutrisna, Asmawi, & Pelana, 2018). Petanque is a sport that demands optimal technique to win the game, in addition to good mental and physical condition. Based on the mechanics of petanque sport is sports that emphasize the ability to achieve optimal accuracy. Throws made in petanque sports generally apply parabolic motion where the consistency factor of energy when throwing and the angle of the throw is the key to achieving a certain horizontal distance (Bustomi et al., 2020). One of the factors that affects or has an important role that must be owned by a petanque athlete is pointing skills. If the pointing skills of a petanque athlete are good (effective and optimal), it will certainly improve the athlete's performance and vice versaThe main focus of pétanque is to achieve optimal accuracy. so the throws made must be right in the desired direction to get the victory points (ARHAM, 2020). Eye-hand coordination is an important skill in playing petanque. Petanque sports can train one's hands to work together when performing different tasks, such as aiming and releasing iron balls according to eye observation. The more you practice, the better your eye-hand coordination will be (Suwanto W, 2019). Skill implies fast execution, in the sense of completing the motion task in a minimum amount of time. The faster the execution of a movement, without sacrificing the expected end result (quality), will make the recognition of the skills of the person concerned (Septanto et al., 2017) But in reality there are still many athletes, especially in Cianjur Regency, who have difficulty in mastering basic pointing techniques due to the lack of fun training and involving the motor elements as a whole.

Basically, the basic human movements are walking, running, jumping and throwing (Hanief et al., 2017a). Basic human movement generally consists of three types of movement, namely Non-Locomotor, Locomotor and Manipulative (suardi, 2018). Locomotor basic is one of the

categories in basic fundamental movements (fundamental basic movements), not only non-locomotor and manipulative basic movements, but locomotor basic movements are also taught as learning materials in elementary schools (Hanief et al., 2017b). Manipulative basic movement skills are movement skills to control objects or objects, the movement activities are hitting, throwing, catching, rolling and kicking (Martinus & Kesumawati, 2020). Children's motor development is a process of maturity related to differential aspects of form or function including social emotional changes. The motor process is a movement that directly involves the muscles to move and the process of requirements that make a person able to move the limbs (hands, feet, and limbs), (Mahfud & Fahrizqi, 2020). Motor is something related to locomotion. Physical development is closely related to children's motor development (Yuliandra et al., 2023). The term Motor ability or motor ability shows how important movement activities are for humans, because it is with movement that a person can achieve the intended expectations (Hidayat et al., 2020). Gross motor development is the coordination of body movements such as running, tiptoeing, jumping, hanging, throwing, catching and so on. These activities are needed to improve the ability to coordinate gross motor movements (Nur et al., 2017). Fine motoric involves working the muscles of the fingers and hands that require precision, speed, accuracy, neatness, and coordination between the eyes and hands in controlling the skill (Mustiani et al., 2023).

The game of baseball is one of the branches of playing activities that is very well known in Indonesia long before the Japanese colonial era, precisely during the Dutch era the community was able to recognize the game of baseball. At that time this baseball game was often competed in matches between schools, so that it could be recognized and could be applied in each school and also not in the community (Hadi et al., 2021). Traditional sports are cultural sports that must be developed and preserved. Traditional sports are game-shaped sports so they are very good for use in improving children's motor skills (Syaifulloh & Aguss, 2021). Playing baseball requires basic understanding and individual techniques, basic techniques that must be understood include throwing the ball, catching the ball, hitting the ball, walking and running and how to play baseball (Amirunni, 2024). The baseball game is one of the traditional games most favored by children. In this dynasty game can develop students' basic movements. The baseball game has a greater influence on the physical component of running speed, compared to the physical components of balance, agility, and eye-hand coordination (Riyanto, 2017). The baseball game is a small ball game played in teams, namely the batting team and the guard team. The game is declared won if one team collects many points (Anggraeni et al., 2022). The implementation of the inscription game in order to achieve victory requires compliance with the rules and cooperation so that the game runs in a sporting manner (Syaifulloh & Aguss, 2021). The baseball game is played by two groups of students, one as the attacking team and the other

as the defending team. The game starts with students hitting the ball with a bat in order to run to first base or even directly to second base and then run back to the place of origin safely. While the defending team tries to pick up the ball and throw it right to the batter, while the other teammates are positioned to catch the ball in case it fails to be hit, pick up the ball, throw it to a teammate and catch the ball then if necessary run to kill the batter who is heading for the base or prevent the batter from returning to his original place by throwing to the batter's limbs. The skills of throwing, catching, running and jumping are all contained in the game of baseball (Wati & Jaenudin, 2020). Baseball is a game that prioritizes cohesiveness in playing in a team, where this game is included in the values of the Pancasila Student Profile, namely mutual cooperation (Febriyanto et al., 2024).

The motor skills used in traditional games include gross motor and fine motor skills (Syaifulloh & Aguss, 2021). The baseball game is one of the traditional games that has a movement pattern similar to the pétanque technique, namely directing the ball to the target point, catching it back, and running with synchronized movements. The elements of movement in the baseball game also train accuracy, reaction speed, and concentration which play an important role in improving the ability of basic pétanque techniques.

## Materials and Methods

The research method used is a pseudo-experiment with a one group pretest - posttest design, one group pre-test-post-test design, which is an experiment that is imposed on only one group without a comparison group. The research stages began with a pre-test on the subject, then continued with the treatment. After the treatment was given, the subjects underwent a post-test as the final test to measure the treatment effect (Nuryanti, 2019). Research with an experimental approach is a study that seeks to find the effect of certain variables on other variables under strictly controlled conditions (Ermadinoto, 2016).

Table 1 Desain Penelitian

| Pretest | Treatment | Posttest |
|---|---|---|
| 01 | X | 02 |

Source : (Nuryanti, 2019)

### Participants

Research conducted to improve basic technical skills in petanaque sports is by involving participants from Petanque club athletes Kab. Cianjur which amounted to 15 people. The location

of this research is at the Cianjur Regency Petanque field which is located at Jl. Slamet Riyadi No. 17, Pamoyanan, Kec. Cianjur, Kab. Cianjur, West Java 43211.

### Data Collection

The population and sample in this study were 15 athletes of Club FOPI Kab. Cianjur who would be decisive in a study because of its sustainability. Researchers used the One Group Pretest-Posttest Design technique. The instrument in this study used a petanque basic technique ability test with a distance of 6 meters, 7 meters, and 8 meters.

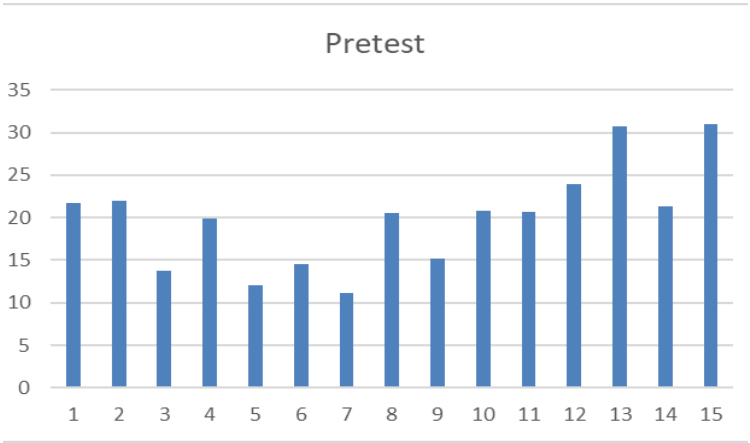
### Data Analysis

Data were analyzed using Descriptive Statistics, Normality Test, and T – Test. This analysis was performed using SPSS version 25 software.

## Results and Discussion

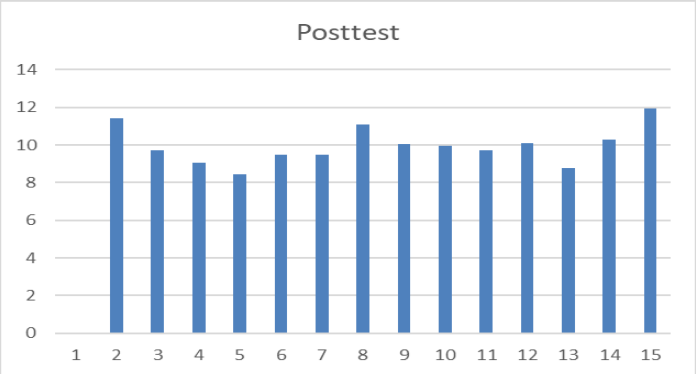
This study was conducted for a total of 8 meetings, where at this meeting the researcher gave a pretest to athletes in the form of throwing bosi at a distance of 6, 7, 8 meters. Then the athletes were given a treatment until the 8th meeting, the researcher gave treatment to the athletes by giving practice to the baseball game. After giving a prestest and treatment or a treatment, the researcher gave a posttest to the FOPI Kab. Cianjur athletes, namely in the form of a bosi throwing test at a distance of 6, 7, 8 meters to check whether there was an increase in the basic pointing technique skills of FOPI Kab. Cianjur athletes.

Tabel 1 Pretest FOPI Kab. Cianjur athletes




From the table of initial test results (pretest) throwing bosi at a distance of 6, 7, 8 meters, there were 15 athletes who took the test with the closest results throwing bosi with the target (jack) as many as 3 athletes and the farthest throwing bosi with the target (jack) as many as 2 athletes.

Tabel 2. Post Test FOPI Kab. Cianjur athletes




From the table of the final test results of throwing bosi with a distance of 6, 7, 8 meters at Cianjur Regency FOPI athletes. There is an increase in test results in 15 athletes who took the initial test and the final test, with the closest result throwing bosi with a target (jack) under 15 cm as many as 15 athletes.

## Paired Sample t - Test.

Based on the results of data analysis using the Paired Sample T-Test statistical test, it can be concluded that the baseball game has a positive influence on improving basic pointing skills in petanque sports. The following is a summary of conclusions based on the three test result tables.

Table 4. Paired Samples Statistics

| | | Mean | N | Std. Deviation | Std. Error Mean |
|---|---|---|---|---|---|
| Pair 1 | Pretest | 19,9511 | 15 | 5,93855 | 1,53333 |
| | Posttest | 9,8978 | 15 | ,98476 | ,25426 |

The Paired Samples Statistics results show a decrease in the average score from the pretest of 19.95 to the posttest of 9.90. In the sport of petanque, lower scores reflect better throwing accuracy. Thus, this decrease in score indicates an increase in pointing technique skills after being given treatment in the form of a baseball game.

Table 5. Paired Samples Correlations

| | | N | Correlation | Sig. |
|---|---|---|---|---|
| Pair 1 | Pretest & Posttest | 15 | ,392 | ,149 |

The Paired Samples Correlations results show obtained a correlation of 0.392 with a significance level of 0.149, which means that there is no statistically significant relationship between the pretest and posttest scores. This shows that the improvement in pointing technique performance

is not caused by the initial ability of the participants, but is influenced by the treatment (baseball game) given during the study.

Table 6. Paired Samples Test

| | Paired Differences | | | | | | | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|
| | | | | 95% Confidence Interval of the Difference | | | | |
| | Mean | Std. Deviation | Std. Error Mean | Lower | Upper | t | df | |
| Pair 1 Pretest - Posttest | 10,05333 | 5,62607 | 1,45265 | 6,93772 | 13,16895 | 6,921 | 14 | ,000 |

The results of the Paired Samples Test (paired t test) show that the difference in the average pretest and posttest scores of 10.05 is statistically significant with a value of t = 6.921, df = 14, The test results showed a significance of p = 0.000 (p < 0.05). This shows a significant difference between the pretest and posttest scores, so it can be concluded that the baseball game has a significant effect in improving basic pointing technique skills.The baseball game is proven to have a significant effect in improving the skills of basic pointing techniques in the sport of petanque. The dynasty ball game-based training method can be used as a fun, effective, and appropriate training alternative to the characteristics of pointing techniques, because it trains accuracy, concentration, and control of precise throwing movements.

## Discussion

The results showed that the baseball game had a significant effect on improving the skills of basic pointing techniques in the sport of petanque. This finding can be explained through the theory of skill transfer, where skills from one activity can transfer and support skills in other activities if they have similar movements. Throwing and catching movements in a baseball game have similarities with pointing techniques, so training through baseball can strengthen coordination, accuracy, and control of movements needed in petanque. This research is in line with the results of Syaifulloh & Aguss (2021) which prove that the game of dynasty is effective in improving basic throwing and catching skills, and supports the findings of Bustomi et al. (2020) which emphasize the importance of accuracy and pointing motion characteristics in petanque. Thus, this study strengthens the view that traditional games can serve as an alternative training method that is fun, effective, and able to increase the motivation of novice athletes in the process of learning basic techniques.

## Conclusion

The baseball game was shown to significantly improve the skills of basic pointing techniques in petanque. In addition, baseball games are suggested as a form of pointing training because they are beneficial for novice athletes and deserve further research with a wider range of samples, durations, and aspects. As a learning medium, the baseball game is also effectively used in pointing exercises that are fun, able to increase athlete motivation, and suitable for testing with quasi-experimental methods. However, this study has limitations, namely the small sample size, short training duration, focus only on pointing techniques, and has not measured psychological aspects in depth.

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### Conflicts of Interest

The authors declare no conflict of interest.

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