

## Training on Petanque Throwing Strategy and Accuracy Based on Game Situations for Novice Athletes in Tulangan District, Sidoarjo

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### ABSTRACT

**Objective:** This community service program aimed to improve the basic technical skills and tactical understanding of beginner petanque athletes through training that integrated pointing, shooting, and game-situation strategies. **Method:** The program was conducted at HAPPY PETANQUE, Tulangan District, Sidoarjo, on October 4, 2026. A total of 37 beginner athletes participated in a three-hour training activity consisting of technical explanation, demonstrations, guided practice, situation-based exercises, and evaluation. The evaluation focused on participants' execution of pointing and shooting techniques, understanding of tactical choices, and ability to apply technical skills in simulated game situations. **Results:** The training provided participants with direct experience in applying pointing and shooting techniques under varied game situations. Observational evaluation indicated that the participants were able to follow the technical demonstrations, identify differences between pointing and shooting situations, and apply basic tactical considerations when selecting the appropriate throwing technique. The situation-based approach also encouraged participants to connect technical execution with the tactical demands of actual play. **Novelty:** The program integrated technical accuracy training with tactical decision-making through simulated game situations in a community-based petanque setting. This approach moved beyond isolated technical drills by emphasizing the relationship between throwing accuracy and decision-making during play.

## INTRODUCTION

Petanque is a precision sport in which athletes are required to control the direction, distance, and trajectory of a boule to achieve a strategic advantage over an opponent [1]. Unlike sports dominated by speed or physical contact, petanque requires a combination of technical accuracy, concentration, coordination, and tactical decision-making [2]. Two fundamental techniques that determine performance are pointing and shooting [3]. Pointing is generally used to place a boule as close as possible to the jack, whereas shooting is used to remove an opponent's boule or alter the tactical configuration of the game [4]. Consequently, technical mastery alone is not sufficient when athletes must determine which action is most appropriate in a particular game situation [5].

Previous studies have demonstrated that accuracy is an important component of petanque performance [6]. Research examining pointing accuracy has shown that body position and throwing mechanics influence the distance between the boule and the target [7]. Other studies have examined factors such as hand-eye coordination, strength, balance, and mental preparation in relation to shooting accuracy [8]. These findings indicate that successful petanque performance involves the interaction of technical, physical, and psychological factors rather than a single isolated skill [9].

The development of technical skills among beginner athletes requires an appropriate training environment [10]. Beginners frequently focus on reproducing the movement demonstrated by a coach without sufficiently understanding why a particular technique should be selected [11]. In petanque, this issue becomes important because the same technical skill may produce different outcomes depending on the position of the jack, the location of the opponent's boule, the distance, and the score [12]. Therefore, training that separates pointing and shooting completely from actual game situations may provide limited opportunities for athletes to develop tactical awareness [13].

Recent research supports the importance of training approaches that place athletes in situations resembling actual competition [14]. A 2026 study involving university athletes reported that competition-based training produced greater improvements in pointing accuracy than standard training [15]. Another recent study found that a target-situation game approach could improve shooting accuracy [16]. These findings provide support for integrating technical practice with game-like situations rather than relying exclusively on repetitive isolated drills.

The tactical dimension of petanque is particularly important because athletes must continuously interpret the position of the jack and boules before determining their next action. A recent study of petanque athletes identified situation interpretation, tactical understanding, alternative action selection, decision accuracy and speed, confidence, and pressure control as relevant dimensions of decision-making. This suggests that athlete development should not only focus on whether an athlete can execute a throw, but also whether the athlete understands when and why a particular throw should be performed.

At the beginner level, the need for integrated technical and tactical training becomes increasingly important. Athletes who can perform pointing and shooting in isolated drills may still experience difficulty when required to select an appropriate technique during a game. For this reason, the training process needs to gradually move from technical explanation and demonstration toward exercises that require athletes to interpret game situations and make decisions. Such an approach can make training more meaningful because athletes learn the technical skill in a context that resembles the actual demands of competition.

The community service program at HAPPY PETANQUE, Tulangan District, Sidoarjo, was developed in response to this need. The partner community provides an environment for beginner athletes to develop petanque skills, but the training process needs to emphasize not only basic throwing mechanics but also the relationship between accuracy and tactical decision-making. A short, intensive training program was therefore designed to combine pointing, shooting, and situation-based tactical exercises within a three-hour activity.

The program also considers the characteristics of beginner athletes. Training for beginners should provide clear demonstrations, sufficient opportunities for practice, direct feedback, and simple tactical problems that can be understood and solved through practical experience. Rather than presenting strategy exclusively through verbal

explanations, the participants were introduced to situations in which they had to observe the position of the jack and boules, identify the tactical problem, and select an appropriate throwing action.

The objective of this community service program was therefore to provide structured training in pointing, shooting, and game strategy for beginner petanque athletes at HAPPY PETANQUE, Tulangan District, Sidoarjo. More specifically, the program aimed to strengthen participants' understanding and application of basic throwing techniques and to introduce tactical decision-making through game-situation exercises. The activity was expected to provide the partner community with a practical training model that could subsequently be continued during regular petanque practice.

## RESEARCH METHOD

This community service activity employed a participatory training approach. The activity was conducted at HAPPY PETANQUE, Tulangan District, Sidoarjo, on October 4, 2026. The program lasted approximately three hours and involved 37 beginner petanque athletes. The participants were members of the partner community who were categorized as beginner athletes based on their participation in the club's training activities.

The training was organized into several stages: initial orientation, technical demonstration, guided practice, situation-based tactical training, game simulation, and evaluation. This structure was selected to provide a gradual transition from understanding the basic movement to applying the movement in situations resembling actual play.

The first stage was an orientation and preliminary observation. The instructors introduced the objectives of the activity and explained the differences between pointing and shooting. Participants were also introduced to the basic principles of determining the appropriate throwing action based on the position of the jack, the opponent's boule, and the tactical objective of the current end.

The second stage focused on pointing technique. The instructors demonstrated basic body positioning, stance, grip, backswing, release, follow-through, and control of throwing distance. Participants then performed repeated pointing exercises toward designated targets. Feedback was provided directly to help participants identify problems related to direction, distance, and consistency.

The third stage focused on shooting technique. Participants were introduced to the basic purpose of shooting and the technical differences between a shooting action and a pointing action. The exercises were organized progressively, beginning with a stationary target and continuing with situations in which the position of the target and surrounding boules required greater attention and control.

The fourth stage integrated technical skills with tactical decision-making. Participants were presented with simple game situations and asked to determine whether pointing or shooting was the more appropriate action. The instructors

emphasized that tactical decisions should consider the position of the jack, the location of the opponent's boule, the location of the player's own boules, distance, and the current game situation.

The fifth stage involved game simulation. Participants applied pointing and shooting techniques in simplified game situations. In this stage, the instructors observed not only technical execution but also the participants' ability to select an appropriate action before throwing. Feedback was provided after selected attempts so that participants could connect the outcome of the throw with the decision that preceded it.

Evaluation was conducted through observation of technical execution and tactical understanding during the training. The evaluation indicators included the ability to perform the basic pointing movement, ability to perform shooting movement, accuracy of the throw toward the intended target, ability to distinguish pointing and shooting situations, and ability to select an appropriate technique in a simulated game situation. Participant engagement and response during the training were also observed as supporting indicators.

Descriptive analysis was used to summarize the implementation and outcomes of the activity. Because the program was conducted as a one-day community service activity rather than a controlled experimental study, the evaluation was interpreted primarily as an assessment of training outcomes and participant development during the activity. Any numerical pretest-posttest comparison should only be reported when supported by actual recorded measurements.

## **RESULTS AND DISCUSSION**

### ***Results***

The community service activity was attended by 37 beginner athletes from HAPPY PETANQUE, Tulangan District, Sidoarjo. The three-hour program was implemented according to the planned sequence, beginning with technical orientation and demonstrations and continuing with guided practice, tactical situation exercises, and game simulation.

The initial training stage showed that the participants had different levels of familiarity with pointing and shooting. Some participants were already able to perform the basic throwing movement, whereas others required correction in stance, grip, release, and control of throwing distance. This variation was considered in the delivery of feedback so that participants could practice according to their individual needs.

Pointing training emphasized the ability to place the boule toward a predetermined target. The instructors demonstrated the importance of controlling the release and throwing trajectory rather than relying solely on throwing force. During practice, participants were encouraged to observe the relationship between the release direction, throwing distance, and final position of the boule.

Shooting training introduced participants to a different technical and tactical objective. The participants practiced directing the boule toward a target boule and were

encouraged to consider the required level of force and trajectory. The exercise also helped participants understand that shooting should not be performed automatically; rather, the decision to shoot should be related to the tactical situation.

The most important part of the activity was the integration of technical skills into game situations. Participants were given simplified situations in which they had to determine whether pointing or shooting would provide a more appropriate tactical response. This activity changed the focus from merely executing a movement to understanding the purpose of the movement.

During the game simulation, participants demonstrated increased opportunities to apply the concepts introduced during the earlier stages. The instructors observed that participants were able to discuss the position of the boules before making a throw and were increasingly able to associate specific game situations with the selection of pointing or shooting.

**Table 1.** Training Components and Evaluation Indicators

| <b>Training component</b> | <b>Main material</b>                                  | <b>Evaluation indicator</b>                       |
|---------------------------|-------------------------------------------------------|---------------------------------------------------|
| Pointing                  | Stance, grip, release, direction and distance control | Ability to direct boule toward target             |
| Shooting                  | Target orientation, force, trajectory and release     | Ability to hit intended target                    |
| Tactical strategy         | Reading jack and boule positions                      | Ability to identify appropriate action            |
| Situation-based practice  | Pointing/shooting selection                           | Ability to apply technique according to situation |
| Game simulation           | Integrated application                                | Ability to combine technical and tactical skills  |

The activity also produced practical feedback for the partner community. The coaches could identify several aspects that require continued training, particularly consistency of pointing, control of shooting force, and the ability to select an appropriate action under changing game situations. These aspects can subsequently be incorporated into regular training programs at HAPPY PETANQUE.

### **Discussion**

The results indicate that integrating pointing and shooting practice with game situations provides a practical approach for beginner petanque athletes. The central advantage of the approach is that participants are not introduced to technique as an isolated movement. Instead, technical execution is immediately connected to the tactical purpose of the movement. This is particularly relevant in petanque because the athlete must continuously respond to the spatial relationship between the jack, own boules, and opponent boules.

The importance of accuracy in petanque has been consistently emphasized in recent literature. Pointing accuracy determines the ability to place a boule close to the target, while shooting accuracy determines the ability to remove or alter the position of a target boule. Recent studies have examined pointing accuracy from the perspective of standing position and throwing mechanics, while other research has investigated shooting accuracy in relation to physical and coordination factors.

The training approach implemented in this program is consistent with findings showing the value of situation-based training. Henkaryansyah and colleagues reported that a target-situation game approach could improve shooting accuracy because the training requires athletes to coordinate accuracy and precision while responding to a defined target situation. The present community service activity extends this principle by combining target-oriented practice with tactical selection between pointing and shooting.

The integration of competition-like situations is also relevant to the development of pointing accuracy. Recent evidence from university athletes showed that competition-based training produced greater improvement in pointing accuracy than standard training. Although the present activity was not designed as an experimental comparison, the training structure similarly attempted to reproduce some of the perceptual and decision-making demands that athletes encounter during actual games.

Another important finding concerns tactical decision-making. Petanque athletes are required to interpret the game situation before deciding on their next action. A technically accurate athlete may still make an ineffective contribution if the selected technique is inappropriate for the tactical context. Recent research on petanque decision-making identified situation interpretation and tactical understanding as important dimensions of athlete decision-making, reinforcing the need to develop cognitive aspects alongside technical skills.

The activity also highlights the importance of coaching feedback for beginner athletes. Beginners generally benefit from direct information concerning body position, release direction, throwing force, and the outcome of each attempt. In this program, feedback was delivered immediately during technical practice and was subsequently connected to the tactical problem presented in the game simulation. Thus, feedback was not limited to correcting movement mechanics but also addressed the rationale behind the selected action.

From a coaching perspective, the combination of pointing and shooting within a single training session provides an efficient way to introduce the complementary functions of the two techniques. Pointing emphasizes placement and control, whereas shooting emphasizes target removal and tactical disruption. By practicing both skills and then applying them to game situations, athletes can begin to understand that technique selection is determined by the tactical objective rather than by technical preference alone.

The approach is also consistent with evidence that petanque performance involves more than physical strength. Recent research has linked shooting performance with coordination, flexibility, and problem-solving ability, suggesting that cognitive and fine-

motor factors contribute to successful execution. Therefore, beginner training should provide opportunities for athletes to solve simple tactical problems while simultaneously practicing the required motor skills.

The partner community can continue the training model by incorporating short situation-based exercises into regular practice sessions. For example, a coach can prepare several tactical scenarios in which athletes must decide whether to point, shoot, or change the intended target. The coach can then discuss the decision before allowing the athlete to execute the throw. This cycle—observe, decide, execute, and evaluate—can be repeated throughout regular training.

One limitation of this community service activity is its short duration. The program was conducted during a single three-hour session, meaning that the activity should not be interpreted as evidence of long-term skill retention or competitive performance improvement. A longer follow-up program would be needed to determine whether the technical and tactical improvements introduced during the activity are maintained over time.

Future community service programs could therefore develop the intervention into a multi-session coaching program. Subsequent activities could include systematic pretest-posttest measurements of pointing and shooting accuracy, tactical decision-making assessment, video feedback, and periodic competition simulation. Such an approach would provide stronger quantitative evidence of the long-term contribution of situation-based petanque training.

## CONCLUSION

**Fundamental Finding:** The community service program at HAPPY PETANQUE, Tulangan District, Sidoarjo, provided 37 beginner athletes with integrated training in pointing, shooting, and game-based tactical strategy. The main contribution of the activity was the integration of technical accuracy with situation-based decision-making. Participants were introduced not only to how to perform pointing and shooting but also to when each technique should be selected according to the position of the jack, boules, and tactical demands of the game. **Implication:** The activity demonstrated that situation-based training can provide a practical framework for beginner petanque development. The approach encourages athletes to connect technical execution with tactical objectives, while providing coaches with opportunities to give direct feedback on both movement and decision-making. **Limitation:** The principal limitation was the one-day duration of the program. Therefore, the results should be interpreted as immediate training outcomes rather than evidence of long-term performance improvement. **Future Research:** Future programs should involve repeated sessions and standardized quantitative measurements of pointing accuracy, shooting accuracy, and tactical decision-making to evaluate the sustainability of the training outcomes.

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