

The Effect of Shadow Play Training on Passing and Shooting Consistency among U12 Football School Students at SSB Independent Janapria, Central Lombok

*Haolan Ajel Wisudawan J.M¹, *Baiq Satrianingsih², Tiassary Janjang Suminar³

*Corresponding Author: Baiq Satrianingsih,, e-mail: baiqsatrianingsih@undikma.ac.id

¹Physical Education and Health Study Program, Faculty of Sport, Health, and Community Sciences, Universitas Pendidikan Mandalika, Mataram, Indonesia

Abstract

Objectives: This study aimed to determine the effect of shadow play training on passing and shooting consistency among U12 students at SSB Independent, Janapria District, Central Lombok.

Materials and Methods: This study used a quantitative approach with a quasi-experimental design and a one-group pretest-posttest model. The sample consisted of 24 U12 football players selected using purposive sampling. The research instruments included a passing accuracy test and a shooting accuracy test. The treatment was conducted through shadow play training for four weeks. Data were analyzed using a paired sample t-test to examine differences between pretest and posttest scores.

Results: The results showed that shadow play training significantly improved students' passing and shooting consistency. The statistical analysis showed a significance value of $p = 0.000$, indicating a significant difference between pretest and posttest results. The improvement showed that repeated movement simulation through shadow play helped players perform passing and shooting techniques more consistently.

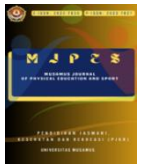
Conclusions: Shadow play training had a significant effect on improving passing and shooting consistency among U12 football players at SSB Independent Janapria. This training method can be used as an effective coaching strategy to strengthen basic football techniques, especially in developing movement repetition, muscle memory, and stable technical performance.

Keywords: shadow play, passing consistency, shooting consistency, football, U12 players

Introduction

Football is a popular sport that requires strong mastery of basic techniques from an early age. In youth football development, football schools play an important role in providing structured training programs to improve players' technical, tactical, physical, and psychological abilities. For U12 players, the development of fundamental football skills is essential because this stage is a critical period for motor learning and movement habit formation (Kuswoyo, Wasa, et al., 2020; Raya-Castellano & Uriondo., 2015; Wang et al., 2022).

Passing and shooting are two important basic techniques in football (Kuswoyo, 2020; Mothna Mohammed, 2016). Passing is needed to maintain ball possession, build attacks, and create tactical cooperation among players. Shooting is directly related to the main objective of football, namely scoring



goals. However, at the youth level, many players still experience difficulties in performing these skills consistently (Boguszewski et al., 2016; Satwikasanti, 2022; Schmidt & Wrisberg, 2008). Inconsistent passing and shooting may be caused by limited repetition, lack of movement control, low confidence, and insufficient technical automation (Kuswoyo, Lahinda, et al., 2020; Kuswoyo & Betaubun, 2019; Susworo Dwi Marhaendro et al., 2023).

One training method that can be used to improve technical consistency is shadow play (David J. Smith, 2003; Micheo et al., 2012). Shadow play is a movement simulation exercise performed without an opponent and, in some cases, without a ball. This method emphasizes repetition, visualization, (Dudley et al., 2011; Farizal Imansyah & Akbar Tanjung, 2020; Verawati et al., 2021a) rhythm, and technical control in a pressure-free environment. Through shadow play, players can focus on body position, foot movement, direction, timing, and execution pattern without external distraction.

Shadow play is also relevant for football schools located in rural areas, where training facilities and competitive opponents may be limited (Fahey, 2022). This method is practical, economical, and flexible because it can be conducted with minimal equipment. For young players, shadow play may help build muscle memory and improve technical stability before applying the skills in real game situations.

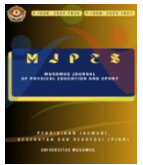
Previous literature supports the importance of repetition and visualization in sports training (Brewer, 2017; Mănescu, 2025). (Moghaddaszadeh A & Belcastro AN, 2021; Verawati et al., 2021b) stated that repeated and systematic movement practice can improve athletes' technical consistency. (Dehghansai et al., 2022; Yan et al., 2023) also emphasized that youth football players need structured technical experiences that are appropriate to their developmental stage. Similarly, (Kuswoyo, Lahinda, et al., 2020) explained that football training should develop technical execution through progressive and game-relevant practice.

Based on this background, this study aimed to determine the effect of shadow play training on passing and shooting consistency among U12 football school students at SSB Independent, Janapria District, Central Lombok.

Materials and Methods

Study Design

This study used a quantitative approach with a quasi-experimental design. The research design applied was a one-group pretest-posttest design. This design was used to compare players' passing and shooting consistency before and after receiving shadow play training.



Group	Pretest	Treatment	Posttest
Experimental group	T1	Shadow play training	T2

Participants

The participants were U12 football players from SSB Independent, Janapria District, Central Lombok. The sample consisted of 24 players selected using purposive sampling. The participants were selected based on their active participation in football training and their suitability for the training program.

Training Program

The treatment consisted of shadow play training conducted for four weeks. The training focused on repeated movement simulations related to passing and shooting techniques. The exercises emphasized body positioning, foot placement, movement direction, balance, timing, and technical execution.

The training was designed to allow players to practice in a pressure-free situation before applying the movements in more complex football contexts. The main purpose was to develop technical consistency and strengthen movement memory.

Instruments

The instruments used in this study were:

1. Passing accuracy test, used to measure the consistency of passing performance.
2. Shooting accuracy test, used to measure the consistency of shooting performance.

Both tests were conducted before and after the treatment.

Data Analysis

The collected data were analyzed using a paired sample t-test to determine whether there was a significant difference between pretest and posttest scores. The level of significance was set at 0.05.

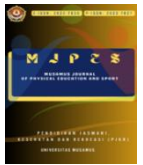
Results

The results showed that students' passing and shooting consistency improved after participating in shadow play training.

Passing Consistency

The passing test results showed a significant difference between pretest and posttest scores. The significance value was $p = 0.000$, which was lower than 0.05. This means that shadow play training significantly improved passing consistency among U12 football players.

Shooting Consistency



The shooting test results also showed an improvement after the treatment. Players became more consistent in performing shooting movements, especially in terms of body control, foot placement, and execution direction. The statistical result showed $p = 0.000$, indicating a significant difference between pretest and posttest results.

Summary of Statistical Results

Table 1. Summary of Paired Sample t-test Results

Variable	Test Comparison	Sig. Value	Description
Passing consistency	Pretest–Posttest	0.000	Significant
Shooting consistency	Pretest–Posttest	0.000	Significant

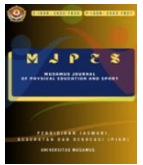
The results indicate that shadow play training had a significant effect on improving both passing and shooting consistency.

Discussion

The findings of this study showed that shadow play training significantly improved passing and shooting consistency among U12 football players at SSB Independent Janapria. This improvement occurred because shadow play provides repeated movement practice in a controlled and pressure-free environment. Through repeated technical simulation, players can focus on correct movement patterns before applying them in real game situations.

The improvement in passing consistency suggests that shadow play helped players strengthen movement rhythm, body orientation, and foot placement. Passing requires coordination between vision, body balance, and technical execution. By repeating passing-related movement patterns, players became more stable in performing the technique. This finding supports who stated that systematic repetition is essential for improving technical consistency in sport.

The improvement in shooting consistency also indicates that shadow play can help young players develop better movement control. Shooting requires proper body position, support-foot placement, kicking mechanics, and follow-through. When these movements are repeatedly trained through shadow play, players may develop stronger muscle memory. This is in line with (Perroni et al., 2023; Wiewiorski et al., 2017), who emphasized that youth football training should prioritize repeated technical experiences



that are suitable for players' developmental stages.

The results are also supported by (McCormack, 2020) who explained that football performance can be improved through structured training that develops technical execution and tactical awareness progressively. Although shadow play does not directly involve opponents, it can prepare players to perform technical movements more confidently before entering competitive or game-based situations.

In addition, shadow play may provide psychological benefits for young players. Since the exercise is performed without direct pressure from opponents, players can practice more calmly and confidently. This condition is important for U12 players because they are still developing technical confidence and movement habits. A calm training environment allows them to focus on the quality of movement rather than the fear of making mistakes.

These findings suggest that shadow play is useful not only for technical repetition but also for developing automatic movement responses. When players repeatedly perform correct passing and shooting patterns, the movements may become more stable and consistent. This is especially important in youth football, where the main training goal is to build a strong foundation for future skill development.

Overall, shadow play can be recommended as an effective training method for football schools, especially in areas with limited facilities. The method is simple, economical, flexible, and suitable for early-age football development.

Conclusions

This study concluded that shadow play training had a significant effect on improving passing and shooting consistency among U12 students at SSB Independent Janapria, Central Lombok. The statistical results showed a significance value of $p = 0.000$, indicating that the improvement between pretest and posttest scores was significant.

Shadow play training can be used as an effective coaching method to strengthen basic football techniques through movement repetition, visualization, and muscle memory development. Coaches are encouraged to integrate shadow play into regular training programs, especially as an early-stage technical reinforcement method for young football players.

Referencess

Boguszewski, D., Oko, B., Adamczyk, J. G., & Białoszewski, D. (2016). Evaluation of the effectiveness of kinesiotaping in reducing delayed onset muscle soreness of the biceps brachii. *Biomedical Human Kinetics*, 8(1), 88–94. <https://doi.org/10.1515/bhk-2016-0013>



- Brewer, C. (2017). *Athletic Movement Skills: Training for Sports Performance*. Human Kinetics.
- David J. Smith. (2003). *A Framework for Understanding the Training Process Leading to Elite Performance | Sports Medicine*. <https://link.springer.com/article/10.2165/00007256-200333150-00003>
- Dehghansai, N., Pinder, R. A., & Baker, J. (2022). Talent Identification and Development in Paralympic Contexts: Current Challenges. *Frontiers in Sports and Active Living*, 4, 926974. <https://doi.org/10.3389/fspor.2022.926974>
- Dudley, D., Okely, A., Pearson, P., & Cotton, W. (2011). A systematic review of the effectiveness of physical education and school sport interventions targeting physical activity, movement skills and enjoyment of physical activity. *European Physical Education Review*, 17(3), 353–378. <https://doi.org/10.1177/1356336X11416734>
- Fahey, J. (2022). *Futsal: The Story of an Indoor Football Revolution*. Melville House.
- Farizal Imansyah & Akbar Tanjung. (2020). Analisis Kecepatan Renang Gaya Bebas Pada Atlet Sekolah Olahraga Negeri Sriwijaya (Sons). *Penjaskesrek Journal*, 7(1). <https://doi.org/10.46244/penjaskesrek.v7i1.1017>
- Kuswoyo, D. D. (2020). *Buku Ajar Sepak Bola*. Penerbit NEM.
- Kuswoyo, D. D., & Betaubun, P. (2019). Relationship between speed with dribbling skills on the students of physical education department in playing football at Universitas Musamus. *International Journal of Advanced Research in Engineering and Technology*, 10(6), Article 6. <https://doi.org/10.34218/IJARET.10.6.2019.006>
- Kuswoyo, D. D., Lahinda, J., & Syamsudin. (2020). The effects of high-intensity interval training (HIIT) in improving VO₂ max football student activity unit, University of Musamus. *Enfermeria Clinica*, 30. <https://doi.org/10.1016/j.enfcli.2019.10.130>
- Kuswoyo, D. D., Wasa, C., & Dongoran, M. F. (2020). Back-up training effects to the students' ability in heading the ball. *Edu Sportivo Indonesian Journal of Physical Education*, 1(1), 25–32. [https://doi.org/10.25299/es:ijope.2020.vol1\(1\).5190%0AHow](https://doi.org/10.25299/es:ijope.2020.vol1(1).5190%0AHow)
- Mănescu, D. C. (2025). Big Data Analytics Framework for Decision-Making in Sports Performance Optimization. *Data*, 10(7), 116. <https://doi.org/10.3390/data10070116>
- McCormack, C. (2020). *A Principled Approach to Equipment Scaling to Enhance Skill Acquisition in Female Junior Basketball* [Application/pdf,application/pdf]. <https://doi.org/10.25907/00009>
- Micheo, W., Baerga, L., & Miranda, G. (2012). Basic Principles Regarding Strength, Flexibility, and Stability Exercises. *PM&R*, 4(11), 805–811. <https://doi.org/10.1016/j.pmrj.2012.09.583>
- Moghaddaszadeh A & Belcastro AN. (2021). Guided Active Play Promotes Physical Activity and Improves Fundamental Motor Skills for School-Aged Children. *Journal of Sports Science and Medicine*, 86–93. <https://doi.org/10.52082/jssm.2021.86>
- Mothna Mohammed. (2016). Identify the Tests to Measure Physical Characteristics and Basic Skills for the Football Players in Iraq. *International Journal of Kinesiology and Sports Science*, 4(3). <https://doi.org/10.7575/aiac.ijkss.v.4n.3p.18>
- Perroni, F., Castagna, C., Amatori, S., Gobbi, E., Vetrano, M., Visco, V., Guidetti, L., Baldari, C., Rocchi, M. B. L., & Sisti, D. (2023). Use of Exploratory Factor Analysis to Assess the Fitness Performance of Youth Football Players. *Journal of Strength and Conditioning Research*. <https://doi.org/10.1519/JSC.0000000000004414>



- Raya-Castellano, E. P., & Uriondo, L. F. (2015). A review of the multidisciplinary approach to develop elite players at professional football academies: Applying science to a professional context. *International Journal of Performance Analysis in Sport*, 15(1), 1–19. <https://doi.org/10.1080/24748668.2015.11868773>
- Satwikasanti, W. T. (2022). *Exploring the impact of independent running on physical activity levels and psychosocial aspects in children with vision impairments (study case: Regular exposure to a running-line in a school setting)*. 10520312 Bytes. <https://doi.org/10.26174/Thesis.Lboro.20142107>
- Schmidt, R. A., & Wrisberg, C. A. (2008). *Motor learning and performance: A situation-based learning approach*, 4th ed (pp. xx, 395). Human Kinetics.
- Susworo Dwi Marhaendro, A., Suharjana, S., & Sujarwo, S. (2023). Validity and reliability of futsal player skill measurement tests. *Jurnal SPORTIF : Jurnal Penelitian Pembelajaran*, 9(1), 74–91. https://doi.org/10.29407/js_unpgri.v9i1.19672
- Verawati, I., Dewi, R., & Ritonga, D. A. (2021a). Development of Modification of Big Ball Game with Play Approach in Order to Develop Basic Movement Skills in Elementary School Students. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 4(2), 3186–3192. <https://doi.org/10.33258/birci.v4i2.2051>
- Verawati, I., Dewi, R., & Ritonga, D. A. (2021b). Development of Modification of Big Ball Game with Play Approach in Order to Develop Basic Movement Skills in Elementary School Students. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 4(2), Article 2. <https://doi.org/10.33258/birci.v4i2.2051>
- Wang, S. H., Qin, Y., Jia, Y., & Igor, K. E. (2022). A systematic review about the performance indicators related to ball possession. *PLOS ONE*, 17(3), e0265540. <https://doi.org/10.1371/journal.pone.0265540>
- Wiewiorski, M., Wurm, M., Barg, A., Weber, M., & V, V. (2017). Football/Soccer. In V. Valderrabano & M. E. Easley (Eds.), *Foot and Ankle Sports Orthopaedics* (pp. 459–46). Springer, Cham. https://doi.org/10.1007/978-3-319-15735-1_52
- Yan, J., Jones, B., Smith, J. J., Morgan, P., & Eather, N. (2023). A Systematic Review Investigating the Effects of Implementing Game-Based Approaches in School-Based Physical Education Among Primary School Children. *Journal of Teaching in Physical Education*, 42(3), 573–586. <https://doi.org/10.1123/jtpe.2021-0279>