

Literature Review: The Effect of Drill Training on Improving the Backhand Serve in Badminton

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Abstract

Education plays a role in the development of human abilities. One important form of education is physical education and sports; among the sports that promote physical fitness and are popular among many people is badminton. The purpose of this study is to examine scientific articles related to the effect of drill training methods on the backhand serve in badminton. This study employs a literature review method. The procedure for the search using the Google Scholar database focused on articles published from 2016 to 2026. The keywords used were: drill training, serve, and badminton. From the search results, 16 relevant articles were identified and used, with the analysis focusing on 6 of these articles. The results of the study indicate that the drill training method, when conducted consistently to help develop motor skills and foster habit formation, can improve the ability to perform a backhand serve in badminton; thus, drill training has a significant impact on enhancing an individual's ability to execute a backhand serve in badminton. Furthermore, this serves as a recommendation for coaches and physical education teachers to incorporate variety into their instruction for their students.

Keywords: Drill practice; serve; backhand; badminton.

1. Introduction

Education plays an important role in a person's life because it helps improve physical abilities and ways of thinking. How well a person performs in school depends largely on how effectively they learn. (Fajar, 2020). The education system in Indonesia follows a set of rules known as curriculum policy. Both elementary and secondary schools are required to include physical education as part of their curriculum. (Law of the Republic of Indonesia No. 20 of 2003 on the National Education System) (Mustafa, 2022).

Physical education is an important part of overall education, encompassing various subjects that help students develop physically and mentally. It is a broad field of study that covers three main areas: thinking, feeling, and acting. Physical education is taught in schools because maintaining physical fitness is essential for daily life, whether for studying, working, or engaging in other activities. (Lengkana & Sofa, 2017). Physical education and health classes are an excellent way to help children improve their physical abilities and their way of thinking. In these classes, students learn about playing, working together, and embracing the important values of sportsmanship.

According to Heang (2006), sports play a major role in human life. In society, sports are not merely a means to achieve success; they are also crucial for maintaining good health. Several factors influence how well a sports team performs, such as the ability to master techniques and physical endurance. Badminton is a fast-paced and dynamic sport that requires a combination of various movements, mental strategy, courage, good skills, and smart planning (Sumroti, 2021).

(Aksan, 2013) states that badminton ranks among the most favored sports. This sport enjoys widespread popularity. It involves the use of a racket and a shuttlecock. The game can be played by two individuals competing against one another, or by two teams, each made up of two players, facing off. They are positioned on opposite ends of the court, where a net divides the play area. To earn a point, a player must strike the shuttlecock over the net such that it falls on the side of their opponent. Each player or team is allowed a single strike of the shuttlecock before it goes over the net (Supriatna et al., 2018).

According to Williyanto et al. (2018), this sport has garnered significant attention and attracts people of all skill levels, including men, women, children, and adults. Badminton is a game played with a net, rackets used to hit the shuttlecock, and the shuttlecock itself, which is hit back and forth; it requires both basic and advanced techniques (Syofian & Gazali, 2021).

To play badminton well and correctly, it is important for players to master the basic skills of the game. The key skills every player must master are: first, how to hold the racket correctly; second, how to use the wrist; third, good footwork; and fourth, staying focused and concentrated. (Tohar, 1992). (Smpn et al., 2021). In addition, every player needs to learn and practice several basic skills, such as the serve, footwork, backhand, forehand, lob, drop shot, drive, overhead, net shot, and smash. These skills are essential in all types of badminton matches, whether singles or doubles (Gustian, 2024).

Mastering the basic serve technique in badminton is crucial because the serve plays a major role in scoring points and winning matches. The short serve is a type of serve that directs the shuttlecock to two specific areas: the corner where the front service line meets the center line, and the area where the service line meets the sideline. The shuttlecock flies close to the net, as explained by Tohar (Hartanto, 2017).

Many factors can influence how well a person serves, such as their basic serving skills, their physical condition, how they hold the racket, and how they hit the shuttlecock. In addition, the venue and equipment used for practice also play a role in how well their serving skills develop (Andika & Maidarman, 2020).

A common problem encountered when playing badminton is making mistakes on the serve. In reality, there are still many players especially beginners who have not yet mastered the correct basic backhand serve technique. Common mistakes include holding the racket incorrectly, having improper foot positioning, and hitting the shuttlecock too high. This lack of understanding prevents players from executing good, accurate serves. If these mistakes are made frequently, they can affect the course of the match, since the serve is the opening move that significantly determines the outcome of the game. Therefore, a solid understanding and effective training methods regarding the basic backhand serve technique in badminton are essential.

Based on the above discussion, this underscores the importance of basic serving techniques as a fundamental skill in badminton. There has not been much research specifically summarizing the effectiveness of drill methods for backhand serves through a literature review. Therefore, this study examines the impact of backhand serve drill methods on badminton training.

The purpose of this study, which employs a literature review method, is to provide recommendations to coaches and physical education teachers on how to teach the basic serving technique that must be mastered before playing badminton.

2. Method

The research method used to conduct the study “Literature Review: The Effect of Drill Exercises on Improving the Badminton Backhand Serve” employed a literature review as its research method. A literature review is a type of scientific study that examines a specific topic. This review provides a summary of how the topic has evolved over time. This method helps researchers identify existing theories or methods, develop new ones, and identify areas where theories may be incomplete or have not yet been fully applied in real-world situations or in other studies (Rowley & Slack, 2004; Bettany-Saltikov, 2012)(Cahyono et al., 2019).

A literature review helps readers understand other studies related to the current study. This review demonstrates how the current study aligns with previous research and addresses aspects that may have been overlooked in earlier studies (Creswell, 2015; 56)(Hadi & Afandi, 2021).

The variables searched for in this study on Google Scholar are:

1. Journal databases containing the keywords “Drill Exercises,” “Backhand Serve,” and “Badminton”.
2. Publications from the last 10 years (2016-2026).
3. Fields of study: (Education, sports, and training).
4. Research types: (Descriptive, qualitative, quantitative, and experimental).
5. Selection of relevant articles.

Table 1. Analysis of research originality

No	Research title	Researcher and year	Research objectives	Research methodology	Research findings
1	The Effect of Drill Training Methods on Improving the Backhand Drop Shot Technique in Badminton	Rama Afiansyah, Mochamad Zakky Mubarak, Nur Mahfuzah Agustin, (2025)	The purpose of this study is to evaluate how various drill methods influence the development of the backhand drop serve in badminton	An experimental research method using a quantitative approach	The results of the study indicate that drill exercises play a role in improving the quality of the backhand drop shot in badminton
2	The Effect of Drill Training on College Students’ Backhand Serve Skills in Badminton	Alma Apriliani1, Zaenal Arifin1, Azhar Ramadhana Sonjaya (2024)	Badminton drills are designed to improve backhand serve skills	Quantitative, using an experimental design	Based on the findings and analysis of this study, it is concluded that these exercises influence the level of backhand serve skill. This is evidenced by the increase in the average backhand serve

No	Research title	Researcher and year	Research objectives	Research methodology	Research findings
					score measured before and after the exercises were conducted
3	The Effect of Drill Training on the Backhand Serve Skills of Badminton Players at Mts Tarbiyah Islamiyah in Air Napal Subdistrict, North Bengkulu	Sugiyanto,Ari Sutisyana, Defliyanto (2018)	The purpose of this study is to investigate whether certain exercises affect the backhand serve skills of students at MTs Tarbiyah Islamiyah in Air Napal Subdistrict, North Bengkulu.	Quantitative research method; research type: pre-experimental design (one-group pretest-posttest design)	The results of the statistical analysis of the data indicate that technical training significantly improves backhand serve skills in badminton. This is because the calculated t-value of 10.28 and the critical t-value at α 5% significance level of 2.000
4	The Effect of Short Service Drill Training on the Accuracy of Short Serves by PB ORGIPP Badminton Players	Galih Adhi Wicaksono, Ilham Arvan Junaidi, Hengki Kumbara. (2025)	This study aims to assess how short training sessions affect the accuracy of short serves among badminton athletes at PB ORGIPP	The method used in this study was an experiment with a one-group pretest-posttest design	The results of the study show that training using the drill method significantly improves the accuracy of short serves among PB ORGIPP badminton athletes.
5	The Effect of Drill Training on Improving Badminton Serve Accuracy Among Middle School Students	Suwardi (2024)	This study aims to examine how drill training methods can affect the accuracy of serves in badminton among seventh-grade students.	This study employed Classroom Action Research (CAR) with the aim of determining the improvement in students' badminton serve accuracy	The results of the study show that the drill training method significantly improves students' serving skills.

No	Research title	Researcher and year	Research objectives	Research methodology	Research findings
				through the application of drill training methods.	
6	The Effect of the Drill Method on the Short Serve Skills of Boys' Badminton Players in the Extracurricular Program at SMP Negeri 19 Palembang	M. Ricky Athallah, M. Taheri Akhbar, Daryono. (2023)	This study aims to assess the effect of training techniques on the short serve ability in badminton. The badminton team in the extracurricular program at SMP Negeri 19 Palembang	The method used in this study was an experiment	The results of the study show that repetitive practice significantly influences the skills required to execute a drop serve in the boys' badminton extracurricular program at SMP Negeri 19 Palembang.

3. Result and Discussion

The drill method is one of the training methods used in badminton. According to Fahrurrozi in (Jafar & Aisyah, 2022) "The drill method is an activity that involves doing the same thing repeatedly and earnestly with the aim of strengthening an association or perfecting a skill so that it becomes permanent." Based on the results of an analysis of six articles related to the effect of drill practice on the backhand serve, it can be seen that the researchers used both qualitative and quantitative methods, with data or results collected through pretests and posttests.

According to Tohar (1992), basic skills, such as the serve, require regular guidance through ongoing practice to develop proper and accurate movements. (Suwardi, 2024)

In badminton, a drop serve particularly the backhand drop serve refers to a shot in which the shuttlecock is held in front of the abdomen and struck by swinging the racket backward. When executing a drop serve, muscle flexibility is crucial for striking the shuttlecock, as a well-timed hand movement typically results in a successful drop serve. Coordination must be practiced to facilitate this complex movement pattern. (M. Ricky Athallah et al., 2023)

Structured short-serve drills help players and students improve their consistency and self-control when executing short serves. By participating in structured, repetitive drills, players can hone their skills, improve their accuracy, and enhance their focus when executing short serves, thereby achieving the best results. (Galih Adhi Wicaksono et al., 2025)

In the study by Rama Afiansyah, Mochamad Zakky Mubarak, and Nur Mahfuzah Agustin (2025). It was noted that at the time of observation, there were still deficiencies regarding the backhand drop serve technique among PB Makel members. The results of the pretest for PB Makel members showed an average score of 19.20; after conducting drill exercises on the backhand serve and then administering a posttest, there was an improvement with an average score of 28.73. These results

indicate that drill-based training for badminton serves has a significant impact on skill improvement.

Based on research by Alma Apriliani, Zaenal Arifin, and Azhar Ramadhana Sonjaya (2024). (Apriliani et al., 2024) It was noted that during field observations, many errors still occurred when performing the backhand drop serve during badminton matches by the 2019 physical education students in the student activity unit at Garut University. There were factors hindering the serve, such as unprepared foot positioning; incorrect shuttlecock striking caused the shuttlecock to fail to reach the net or go out of bounds. After a pretest of the backhand serve without drill training, scores ranged from 7 to 14, with an average of 11.43. After drill training on the backhand serve, a posttest was conducted; scores ranged from 22 to 28, with an average of 25.29. Analysis of the data revealed a significant difference in the respondents' backhand serve performance between the pretest and posttest, with scores increasing from 11.43 to 25.49. It is therefore concluded that the drill training method significantly improves backhand serve performance in badminton.

Based on research by Sugiyanto, Ari Sutisyana, and Defliyanto (2018). (Sutisyana, 2018) During field observations at the MTs Tarbiyah Islamiyah badminton court, it was found that out of 30 students, only 20% were able to perform a backhand serve well, with an average score of 18.43. After practicing using the drill method, a posttest was conducted, and the students achieved a score of 22.8. This indicates that practicing with the drill method has a positive impact on badminton performance.

Based on the literature review above, the studies as a whole still employ simple experimental designs with relatively small sample sizes; therefore, the generalizability of the research findings requires further examination through studies with larger sample sizes. The studies analyzed focus solely on the benefits of the drill method; they do not address its limitations or compare it with other methods, so no comparative results with other methods are available.

Using the drill method in badminton backhand serve practice has both advantages and disadvantages. As a guide for selecting practice variations, it is important to first understand the benefits of this method so that the training can be as effective as possible and yield maximum results. The following are the advantages and disadvantages of using the drill method in badminton serve practice:

Table 2. Advantages and disadvantages of the badminton drill method

Advantages of The Drill Method	Disadvantages of The Drill Method
1. Drill exercises are exercises performed repeatedly to practice a specific movement. 2. These exercises help develop muscle strength and refine movement. 3. They improve concentration when serving. 4. They lead to more effective mastery of the movement. 5. They make it easier to identify incorrect movements.	1. Focusing on only one goal means other movements are neglected. 2. More energy is expended due to prolonged repetition. 3. Workouts become boring because you're stuck doing the same movement over and over.

Drill exercises can be recommended to coaches and physical education teachers as an innovative way to practice the serve in badminton. Drill exercises not only focus on improving the serve but also help students master proper form and strengthen their hand muscles to increase accuracy when performing a backhand serve. By having students repeat the technique, coaches and physical education teachers can monitor their students for any incorrect movements during the serve.

4. Conclusion and Recommendation

Based on the findings from the journals obtained and reviewed in this study, it is generally noted that the drill training method for the backhand serve is highly effective in improving performance. Observations made before training using the drill technique revealed that many participants were still unable to execute the backhand serve correctly for example, their racket grip and foot positioning were still incorrect. After conducting pre- and post-tests, the researchers found significant improvements. The benefits of drill-based training are numerous; repetitive practice helps improve motor coordination, shot accuracy, and serve consistency, while also strengthening the hand muscles. Therefore, the drill training method is recommended for coaches or physical education teachers to help improve the backhand serve in badminton.

A limitation of this study is the lack of references used; therefore, it is recommended that future research include a greater number of articles and draw on international databases to make the literature review more comprehensive, given the limited references from the articles obtained.

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