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by Fahmi Fahmi

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Analysis of Underhand and Overhand Passing Skills among BBC Junior Volleyball Athletes in 2025

Ibnu Fahmi Adam¹, *Subakti², Adi Suriatno³

***Corresponding Author:** Subakti, e-mail: subakti@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 analyze the underhand and overhand passing skills of BBC Junior volleyball athletes in 2025.

Materials and Methods: This study used a descriptive research design. The participants were 11 BBC Junior volleyball athletes selected using total sampling. Data were collected through underhand and overhand passing skill tests. The instruments used were the Brumbach forearm pass wall-volley test for underhand passing and the AAHPER face pass wall-volley test for overhand passing. Each athlete performed the test for 60 seconds, and the score was based on the number of successful passes directed to the target area. The data were analyzed using descriptive statistics and percentages.

Results: The results showed that underhand passing skill was categorized as good for 27.27% of athletes and moderate for 72.73% of athletes. Meanwhile, overhand passing skill was categorized as good for 45.45% of athletes and moderate for 54.55% of athletes. No athlete was classified in the very good, poor, or very poor categories.

Conclusions: The passing skills of BBC Junior volleyball athletes were generally in the moderate to good categories. Overhand passing showed a slightly better distribution than underhand passing. These findings indicate that structured and varied passing training is needed to improve athletes' technical consistency, accuracy, and readiness during volleyball games.

Keywords: volleyball, underhand passing, overhand passing, technical skills, junior athletes

Introduction

Volleyball is a team sport that requires cooperation, speed, accuracy, coordination, and mastery of basic technical skills. Each team must be able to organize attacks, defend against opponents' attacks, and maintain ball possession effectively (Al-Dabbagh, 2022; González-Silva et al., 2020). Therefore, technical ability is an important foundation for volleyball performance, especially among junior athletes who are still in the development stage (Maughan & Shirreffs, 2017; Salles et al., 2017).

One of the most fundamental skills in volleyball is passing (Bean et al., 2022; Samsudin et al., 2023). Passing is used to receive the opponent's service, control the ball during defensive situations, prepare attacks, and maintain the continuity of play. In volleyball, passing is commonly divided into two main techniques: underhand passing and overhand passing (Daniels et al., 2023). Underhand passing is generally used to receive serves, defend against attacks, and control low or fast balls. Meanwhile,

overhand passing is used to direct the ball to teammates and support attacking patterns.

The mastery of passing skills is very important because poor passing can disrupt team strategy and reduce the quality of attack. Athletes who are unable to pass accurately may create difficulties for setters and attackers. As explained by (Luo et al., 2022; Nurfani et al., 2022) basic techniques such as passing, service, block, and smash are essential components of volleyball performance. Among these skills, passing plays a central role because it becomes the first step in building effective team play.

Initial observations conducted on BBC Junior volleyball athletes from May 9 to 12, 2025, showed that several athletes still experienced difficulties in performing accurate passing. The ball was often directed outside the target area, and some passes made it difficult for teammates to continue the play. These problems indicate that passing skills among BBC Junior athletes still need to be evaluated and improved.

BBC Junior is a volleyball development club that has an important role in training young athletes. To support athlete development, coaches need clear information about athletes' technical abilities, especially in underhand and overhand passing. By identifying the level of passing skills, coaches can design more appropriate and focused training programs.

Based on this background, this study aimed to analyze the underhand and overhand passing skills of BBC Junior volleyball athletes in 2025.

Materials and Methods

Study Design

(Sugiyono, 2012) This study used a descriptive research design. The purpose of this design was to describe the level of underhand and overhand passing skills among BBC Junior volleyball athletes based on skill test results.

Study Participants

The population of this study consisted of all BBC Junior volleyball athletes in 2025, totaling 11 athletes. Because the population was relatively small, the sampling technique used was total sampling. Therefore, all 11 athletes were included as research participants.

Study Organization

The study was conducted at the volleyball court in Batu Kumbung Village, Lingsar District, West Lombok Regency. The research was carried out in May 2025.

Data were collected using underhand and overhand passing tests. The Brumback forearm pass wall-volley test was used to assess underhand passing skill, while the AAHPER face pass wall-volley test was used to assess overhand passing skill.

In each test, the athlete stood facing the target wall while holding a volleyball. After the start signal, the athlete passed the ball toward the target area on the wall for 60 seconds. Each successful pass that hit the target area or target line was awarded one point. Each athlete was given three attempts, and the average score was used as the final result.

Statistical Analysis

The data were analyzed using descriptive statistics. The athletes' scores were classified into five categories: very good, good, moderate, poor, and very poor. The frequency of each category was then converted into percentages using the following formula:

$$\text{Percentage} = \text{frequency} / \text{total number of participants} \times 100$$

Results

Underhand Passing Skill

The results of the underhand passing test showed that most BBC Junior athletes were in the moderate category. Only three athletes reached the good category.

Table 1. Distribution of Underhand Passing Skill

Score Range	Category	Frequency	Percentage
17–20	Very Good	0	0%
13–16	Good	3	27.27%
9–12	Moderate	8	72.73%
5–8	Poor	0	0%
0–4	Very Poor	0	0%
Total		11	100%

The findings indicate that 27.27% of the athletes had good underhand passing skills, while 72.73% were in the moderate category. No athlete was classified in the very good, poor, or very poor categories.

Overhand Passing Skill

The results of the overhand passing test showed a slightly better distribution than the underhand passing test. Five athletes were classified in the good category, while six athletes were classified in the moderate category.

Table 2. Distribution of Overhand Passing Skill

Score Range	Category	Frequency	Percentage
17–20	Very Good	0	0%
13–16	Good	5	45.45%
9–12	Moderate	6	54.55%
5–8	Poor	0	0%
0–4	Very Poor	0	0%
Total		11	100 %

The findings show that 45.45% of the athletes had good overhand passing skills, while 54.55% were in the moderate category. Similar to the underhand passing results, no athlete was classified in the very good, poor, or very poor categories.

2 **Discussion**

The results of this study show that the underhand and overhand passing skills of BBC Junior volleyball athletes were generally in the moderate to good categories. This indicates that the athletes already have basic passing ability, but their technical consistency and accuracy still need improvement.

In underhand passing, most athletes were classified in the moderate category. This finding suggests that athletes still need to improve body position, arm angle, ball control, and passing direction. Underhand passing is an essential defensive technique because it is commonly used to receive serves and attacks. If this skill is not performed accurately, the team may experience difficulty in building an effective attack. This is consistent with Ahmadi (2015), who stated that passing is one of the most important basic techniques in volleyball because it supports both defensive and offensive play.

The moderate result in underhand passing may also be related to limited variation in training. Passing accuracy requires repeated practice, proper movement correction, and gradually increasing task difficulty. Rozzaq and Hidayat (2019) found that varied underhand passing training can help improve students' volleyball passing performance because variation prevents monotony and gives athletes more movement experience. Similarly, Putra Pamungkas (2021) reported that variation-based passing exercises contributed to the improvement of underhand passing skills.

In overhand passing, the percentage of athletes in the good category was higher than in underhand passing. This indicates that athletes showed better performance in directing the ball using both hands above the head. However, more than half of the athletes were still in the moderate category. This means

that several athletes still need improvement in hand positioning, finger control, timing, and accuracy when directing the ball. According to Munasifah (2014), overhand passing is important because it supports the organization of attacks and helps the team create better offensive opportunities.

The absence of athletes in the very good category for both underhand and overhand passing shows that the athletes have not yet reached optimal technical mastery. This condition should be an important concern for coaches. Training programs should not only focus on repetition but also include target-based drills, paired passing, wall passing, game-based passing, and feedback-based correction. Hadi and Sudijandoko (2022) emphasized that paired passing and free passing exercises can improve volleyball passing ability because athletes are trained to control the ball in more realistic movement situations.

The findings also support the view that junior volleyball training should be systematic and progressive. Athletes at the development stage require consistent technical correction, appropriate training load, and varied practice models. As explained by Harsono (2015), training must be planned, structured, and continuous to improve athletes' physical and technical performance. Therefore, coaches should use the results of this study as an evaluation basis to design passing training that is more specific to athletes' needs.

Overall, BBC Junior athletes have demonstrated a basic level of passing ability. However, the dominance of the moderate category indicates that further technical development is still needed. Improving underhand and overhand passing skills will help athletes perform more effectively in receiving the ball, organizing attacks, and maintaining team play during volleyball matches.

Conclusions

The underhand and overhand passing skills of BBC Junior volleyball athletes in 2025 were generally categorized as moderate to good. Underhand passing results showed that most athletes were in the moderate category, while overhand passing showed a slightly higher proportion of athletes in the good category. These findings indicate that the athletes already possess basic passing ability, but they still need structured, varied, and continuous training to improve passing accuracy, consistency, and technical quality.

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