Forehand Overhead Drop Shot Analysis for Men's Under-15 Badminton Athletes

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Abstract. As a result of observation of men's under-15 athletes, many athletes still failed when they hit the forehand overhead drop shot. The formulation of the problem in this study is how to hit the badminton forehand overhead drop shot. This study aims to analyze the forehand overhead drop shot in badminton athletes.The research was conducted on the male under-15 athlete of The Satria Badminton Club, totaling 12 samples. The sampling technique used is random sampling. The data was obtained by analyzing the forehand overhead drop shot for 20 strokes with one recording using kinovea software on the racket grip, standing posture, footwork movement, arm swing, impact, and flight direction of the shuttlecock and continued by making the percentage of forehand overhead drop shot capabilities. The results showed that the men under-15 athletes of The Satria Badminton Club, Tegal regency, totaled 12. The forehand overhead drop shot assessment results are in a reasonably good category. The mistakes made by the athlete when making a forehand overhead drop shot were that the shuttlecock fell far from the net, the flight direction of the shuttlecock was too high, and the shuttlecock was not directed to the target. This study suggests that coaches need a training program to improve badminton athletes' forehand overhead drop shots in The Satria Badminton Club, Tegal regency.

Keywords: forehand overhead drop shot analysis, men’s under-15 badminton athletes.

1 Introduction

Badminton is a sport that most Indonesian people love. According to Cohen, Texier, Quéré, & Clanet (2015: 1), badminton is a sport that uses a racket played by two people (for singles) or two pairs (for doubles) who take a starting position on the field of the field which is divided in half by a net (net)[2]. Phomsoupha & Laffaye (2015:474) argue that badminton balls are not reflected and must be played in the air, so this game is a fast game that requires good reflexes and a high level of fitness. In conclusion, badminton is a game that one person can play against one person or two people against two people[7]. This game uses a racket as a bat, and a shuttlecock as an object to hit, and the movement can be done with fast and slow reflexes. How to do this by bouncing the shuttlecock towards the opponent's court to get points.

A good badminton player must master the basic techniques of badminton. According to Nanang Kusnadi (2020:2), the basic badminton techniques are divided into; (1) How to hold the racket. (2) Body position; (3) Footwork; (4) Blow[5]. Mastery of basic techniques needs to be developed to achieve achievement. The basic techniques of badminton must be studied first to develop the quality of badminton performance because winning or losing a player in a

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match is determined by mastery of basic playing techniques (Zainul, Bagus, and Tomi, 2020:313). Badminton has several techniques that athletes must master, including racket grip, footwork, serve, lob, smash, drop shot and drive [7].

Dropshot is a shot that launches or places the shuttlecock into the opponent's court area as close as possible to the net. Dropshots often interfere with the opponent's movement to change the play pattern from attacking to defending because the opponent is forced to take the shuttlecock from below. Hitting a Drop shot is like doing a smash; the difference is in the position of the hit; the shuttlecock is hit with a softer push and touch than a smash and always falls close to the net in the opponent's court area. The determining factors for the success of a drop shot are the racket grip factor, leg movement, arm swing, movement during impact or impact on the shuttlecock, shuttlecock flight rate, and follow-up movement. Racket grip is done by forehand grip, like a person shaking hands. When making a drop shot, the body's position is behind, so foot movements must be done quickly to pick up the shuttlecock in the correct position. The arm swing is done with a gentle touch so that the shuttlecock falls as close to the net as possible. Movement at impact is when the racket is in contact with the shuttlecock; the hand must be straight to reach the shuttlecock and push with a smooth touch. Dropshot is a cut punch that contains aspects of the subtlety of emotion and deception. When making a good drop shot, the shuttlecock's flight speed does not exceed the service line. After the shuttlecock is hit, the next movement is to continue the swing movement. Do a swing towards the net; the hand holding the racket rotates and crosses in front of the opposite body position, then the body moves back to the center of the court and is ready in the middle of the court to receive the shuttlecock again.

The Satria Badminton Club Tegal regency has produced talented athletes. However, based on the author's observations and interviews with the coach, there are still shortcomings that must be addressed; many athletes are not good at hitting the forehand overhead drop shot. The identification of the problems that the authors found was that the racket's grip was not solid and stiff, causing the athlete to find it challenging to direct the shuttlecock to enter the drop shot target area, the unprepared stance. The position of the feet being opened, not shoulder-width apart, makes it difficult for the athlete to take a drop shot. Footwork that is not fast enough causes the athlete to be late in reaching the shuttlecock behind, the position of the body when hitting the shuttlecock is not rotated and turned towards the incoming shuttle, causing the shuttle to not match the target, the arm swing does not follow the angle of the shuttlecock movement causing the drop shot to be directional make a stroke, the athlete does not return to the center of the court quickly causing the athlete to be late for the next stroke.

The conditions experienced by the Satria Badminton Club Players in Tegal Regency are the reason for the importance of this research. The problem is, how is the forehand overhead drop shot for the Men's Under-15 athlete at the Satria Badminton Club, Tegal Regency?

1.1 Objectives

This study aimed to present the forehand overhead drop shot ability of U-15 Men's athletes at the Satria Badminton Club, Tegal Regency.

2 Literature Review

1) Mahmuda Permata Sari, Oni Bagus Januarto, Tatok Sugiarto (2019). Improving Forehand Drop Shot Stroke Skill in Badminton Through the Drill Method for Children. The results showed that the success rate of drop shot forehand in the first cycle was 60.7% from the first observer and 59% from the second observer, while in the second cycle, the success rate was 79.3% from the first observer and 80.1% from the observer.
2) Ramli, Alif Syamim Syazwan., Kamalden, Tengku Fadilah Tengku., Sharir, Raihana., Harith, Hazreen Haizi., Hana, Marsyita., Gasibat,Oais., Samsudin, Shamsularin. (2021). Mechanical Interaction Within Badminton Forehand Shot Technique: A Review Paper. The results managed to present a synthesis of the literature review and provided constructive discussions as a basis to propose a performance outcome model that illustrates mechanical interactions that contribute to badminton forehand and shot technique performance.
3) Kurnia, Rahmadi., Abdian Pasmai, Abdian., Elfitri, Ikhwana. (2020). Analysis of the Smash and Dropshot Movement Patterns in Badminton Sports using Pearson Correlation. From the results, that athletes had a large similarity pattern compared to participant players with a similarity of more than 50%.

3 Methods

As many as 12 under-15 male players at the Satria Tegal Badminton Club in 2021 were ordered to do forehand overhead drop shots in as many as 20 trials, and they were recorded to choose the best result. The best overhead drop shot practice results were then analyzed using Kinovea software. There are 14 stages of motion assessed, namely racket grip, standing position, arm swing, bodyweight position, reaction to reach the shuttlecock, body twisting movement to reach the shuttlecock, backswing motion, forward swing, racket reach to shuttlecock, racket head movement, racket position with the shuttlecock, swinging motion following the angle of the shuttlecock movement, Step Back to the center of the court, and stand ready at the center of the court. Each movement recorded correctly gets a value of 1, and the wrong one gets a value of 0. Furthermore, the data is analyzed to obtain data in very good, good, sufficient, less, and significantly less. Furthermore, the data is percentage based on the frequency of each data. The data that has been processed in the data table is then displayed in the form of a graph.

4 Data Collection

Table 1. Research Data

Number	Sample	Stages														Total score
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1	X1	1	1	1	1	0	1	1	0	1	1	0	1	0	1	10
2	X2	0	1	1	0	1	1	0	0	1	1	0	1	0	1	8
3	X3	1	0	1	1	1	1	0	0	1	1	1	1	0	1	10
4	X4	1	0	1	0	0	1	0	0	1	1	1	1	1	1	9
5	X5	0	1	1	0	1	1	1	1	1	1	1	0	1	1	11
6	X6	0	0	0	1	1	0	0	0	1	1	1	1	0	1	7
7	X7	0	0	0	0	1	1	0	0	1	1	1	1	1	1	8
8	X8	1	0	1	0	0	0	1	1	1	1	1	0	1	1	9
9	X9	0	1	0	0	1	1	1	1	0	1	1	1	0	1	9
10	X10	1	1	0	1	1	0	0	0	0	1	1	1	1	1	9
11	X11	1	0	1	1	1	0	1	1	1	0	0	0	1	1	9
12	X12	1	1	1	1	1	1	0	0	1	1	1	0	1	1	11

Source: Research data

5 Results and Discussion

5.1 Numerical Results

To determine the category of the sample who took the test according to the total score obtained, a percentage of the total score for each sample was calculated. The percentage categories are as follows:

Table 2. Category of The Sample

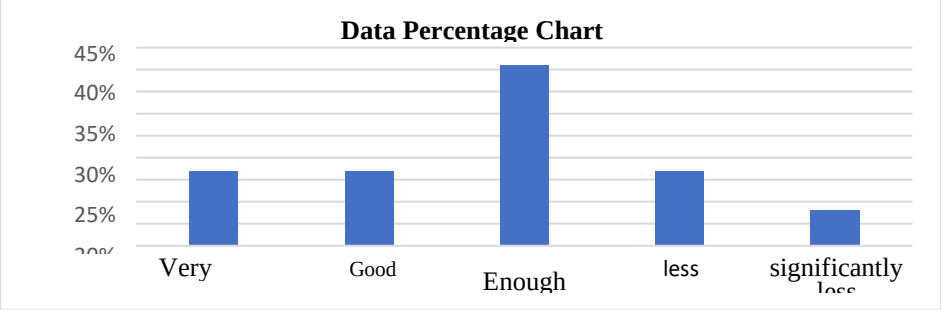
Number	Score	Category	Frequency	Presents
1	11-14	very good	2	17%
2	10	good	2	17%
3	9	enough	5	41%
4	8	less	2	17%
5	1-7	significantly less	1	8%
Total			12	100%

Source: Research data

5.2 Graphical Results

The following is a graph of the percentage of data descriptions based on the results of the forehand overhead drop shot assessment

Table 3. Data Percentage



Source: Research data

5.3 Proposed Improvements

This research is still limited to the badminton club Satria Tegal regency, the numerical and graphic results do not represent every badminton player, and the conclusions cannot be generalized; researchers who will continue the results of this study are advised to conduct research with a larger sample and come from many badminton clubs and various regions so that the results can be generalized

5.4 Validation

This research is descriptive research that does not test the truth of a theory, so there is no research hypothesis testing. However, the instrument in this study has a validity test of the instrument, namely the Kinovea software. The results of the validity of the instrument are contained in the following table 4.

Table 4. Kinovea Software Instrument Trial Results

N	Validity	Reliability	Minimum	Maximum	Mean	St. Deviation
12	0.98	0.94	7	12	9.25	1.299

Source: Research data

6 Conclusion

Research and analysis on the forehand overhead drop shot concluded that the Men's Under-15 Athlete of the Satria Badminton Association of Tegal Regency in 2021 was considered sufficient to do the forehand overhead drop shot, with a percentage value of 41% or five athletes. The mistakes made by the athlete in making the forehand overhead drop shot were the shuttlecock falling too far from the net, the flight direction of the shuttlecock being high, and the shuttlecock flying not on target.

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