Construction of Backhand Drop Shot Test in Badminton

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ABSTRACT

The purpose of the study was to construct backhand drop shot test in badminton. Forty male badminton players from different colleges of Devi Ahilya University, Indore were selected to serve as subjects for this study. All the subjects participated in the Inter Collegiate Badminton Tournament conducted by New Science College, Indore from 25th to 27th August, 2008. Validity of the test was established by correlating the scores obtained on backhand drop shot test (0.878) with the scores obtained by administering the Lockhart and McPherson Badminton Test. Inter class correlation coefficient by analysis of variance method was employed to compute the reliability of the backhand drop shot test (0.970) through three trials administrated by the same tester. Objectivity of the backhand drop shot test was 0.974 through three trials administrated independently by three different testers.

Key Words: Backhand Drop Shot, Reliability, Objectivity, Validity

A beginning badminton player needs to learn the advance shots that are useful in singles and doubles, as well as the stroking techniques employed to produce these shots. In preparation for this, it is also necessary to acquire some associated skills that accompany a good stroking technique. Before attempting stroking techniques, one must learn prerequisite skills of effective stroke production. The purpose of the study was to construct backhand drop shot test in badminton.

Methodology:

Forty male badminton players from different colleges of Devi Ahilya University, Indore were selected to serve as subjects for this study. All the subjects participated in the Inter Collegiate Badminton Tournament conducted by New Science College, Indore in the University, Gymnasium Hall, Indore from 25th to 27th August, 2008. The criterion measures for this study was the playing ability scores obtained by administering the Lockhart and McPherson Badminton Wall Volley Test.

The investigator initially constructed three variations of backhand Drop Shot Test i.e. Backhand Drop Shot Test, Backhand Drop Shot Test-1 and Backhand Drop Shot Test-2. Among them Backhand Drop Shot Test was selected because its validity was higher than the other two tests.

The coaches and managers of the teams were consulted at personal level to conduct the test on badminton players, and a rapport was established with them for the testing programme. All those incharge of teams, coaches and managers were made fully conversant with the study. Tentative times were finalized with them. The researcher approached each player after giving proper and timely information before the test was conducted.

Before administering the test, the subjects were briefed about the purpose of the study and details of the test were explained to them. The subjects were given a demonstration of the test by a trained helper. They were also given sufficient number of trials to enable them to become absolutely familiar with the test. To ensure uniform testing conditions, the subjects were tested in the morning and evening sessions after warming-up during practice sessions. The duration of test administration was set in a manner so that fatigue may not occur. Though no special technique was used to motivate the subjects, the subjects were very co-operative throughout the test.

The purpose of the test was to measure the ability of a player's skill in the Backhand Drop Shot in badminton. Test may be used with male inter-collegiate badminton players.

Two clothesline ropes were stretched 1 and 2 feet above and parallel to the net. Two rackets and preferably 20 shuttlecocks in good condition were needed for the test. Two dotted lines were marked 1 and 2 feet respectively from the short service line towards the net and parallel to it. Two vertical lines 2 feet from each sideline for singles and parallel to it were drawn extending from the short service line upto the net.

The tester served high in the backhand side of the rear court between long service line for singles and doubles from the left service court. The players being tested stood towards the centerline in the middle of the left service court and tried to score maximum points by moving towards the shuttle in the rear court and executing backhand drop shot.

A shot passing between the net and the first rope was scored as 5 points; between the first and second rope 3 points; and over the second rope 1-point. The zones were given the point values of five, four, three, two or one in which the shuttle landed. The score of each shot was the sum of the net and the floor scores. The score was awarded according to the point where the base of the shuttle struck the floor. Shuttles falling on a line were awarded the higher score. Shuttles failing to go over the net going out bounds or falling short of the scoring zones scored no points.

Illegal strokes and the shuttle deflected by the rope were not counted but were given a let to be reserved. The subject was given 3 trials of 10 chances each. The sum of the best of the 3 trials was the score of the subject. A maximum score of 100 was possible on this test.

Findings:

Validity of the backhand drop shot test was established by correlating the test scores with the scores obtained by administering the Lockhart and McPherson Badminton Test. Results thus obtained has been presented in Table-1.

TABLE - 1
RELATIONSHIP OF THE BACKHAND DROP SHOT TEST SCORES TO THE CRITERION

S. No.	Variable Correlated with Criterion	Correlation Coefficient 'r'
1.	**Backhand Drop Shot**	**0.878***

N = 40 *Significant at 0.05 level $r_{0.05}(38) = 0.304$

Table-1 revealed that there was significant relationship between backhand drop shot test scores and the criterion i.e. Lockhart and McPherson Badminton Wall Volley Test scores. Therefore it is evident that the test highly related to the criterion.

Interclass correlation by analysis of variance method was employed to compute the reliability of the test through three trials administrated by the same tester. The data obtained as a result of the administration of backhand drop shot test judged by three different badminton experts who noted the performance of the subjects independently were correlated in order to obtain objectivity coefficients. Analysis of Variance for reliability and objectivity estimates and the obtained reliability and objectivity coefficient (R) values for the test have been presented in Table-2.

TABLE – 2
ANALYSIS OF VARIANCE FOR RELIABILITY AND OBJECTIVITY ESTIMATES FOR THE BACKHAND DROP SHOT IN BADMINTON

Skill		S.V.	SS	df	MSS	F	R
Reliability	Backhand Drop Shot	Sub	8399.333	39	215.368	0.472*	0.970**
		Trial	6.067	2	3.033		
		Inter	501.266	78	6.427		
		Total	8906.666	119			
Objectivity	Backhand Drop Shot	Sub	13460.367	39	345.138	0.250*	0.974**
		Trial	4.550	2	2.275		
		Inter	710.783	78	9.113		
		Total	14175.700	119			

*Insignificant at 0.05 level tab F 0.05(78,2) = 3.12

** Significant at 0.05 level $R_{0.05}(38) = 0.304$

Table–2 revealed that the obtained inter class correlation values for reliability (0.970) and objectivity (0.974) of the backhand drop shot test were significant at 0.05 level because required value with 38 degree of freedom was 0.304. Hence the test has been considered reliable and objective.

Discussion of Findings:

Analysis of data on backhand drop shot test in badminton indicated that the constructed test was found to be reliable. The findings of the study further reveal that the backhand drop shot test in badminton was also found to be objective. The significant values showed that the directions for administration of the test were specific and clear for performance as well as evaluation.

Conclusions:

Within the limitations of the present study, the following conclusions were drawn: -

1. The backhand drop shot test in badminton showed significant relationship with the criterion.
2. The newly developed backhand drop shot test in badminton meet the criterion of scientific authenticity i.e. the test was reliable, objective and valid.

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