

Evaluation of Forehand Jump Smash in Badminton through Subjective and Objective Analysis

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ABSTRACT

The Purpose of this study was to evaluate the Forehand Overhead Jump Smash in badminton through objective and subjective analysis. Fifty male badminton players from different colleges of Devi Ahilya University, Indore who participated in Inter-collegiate badminton Tournament were randomly selected to serve as subjects for this study. Validity (0.88 and 0.82) of the test was established by correlating the scores obtained on Forehand Overhead Jump Smash Test with Lockhart and McPherson Badminton Test scores. Inter class correlation coefficient by analysis of variance method was employed to compute reliability of the test (0.961 and 0.984) through three trials administrated by the same tester. Objectivity of the test was 0.956 and 0.940 through three trials administrated independently by three different testers.

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It behooves anyone who wishes to become an advanced player to keep in mind that the fundamentals cannot be overlooked. Eager to be successful, the novice may choose to use any method or devices that get results now. Because he achieves temporary success (against inferior competition) he may, then continue his unsound technique for so long that it becomes virtually impossible to correct it. The Purpose of this study was to evaluate the Forehand Overhead Jump Smash in badminton through objective and subjective analysis.

Methodology:

Fifty male badminton players from different colleges of Devi Ahilya University, Indore who participated in Inter-collegiate badminton Tournament conducted by New Science College, Indore in the University, Gymnasium Hall from 25th to 27th August, 2008, were randomly selected to serve as subjects for this study. 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 Forehand Overhead Jump Smash Test i.e. Forehand Overhead Jump Smash Test, Forehand Overhead Jump Smash Test-1, and Forehand Overhead Jump Smash Test-2. Among these Forehand Overhead Jump Smash 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.

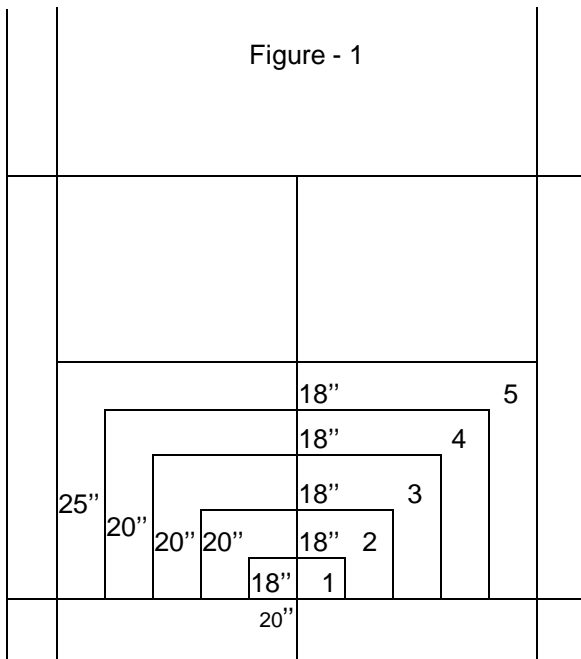
The purpose of the test was to measure the ability of a player's skill in the Forehand Overhead Jump Smash in badminton. Test may be used with male inter-collegiate badminton players.

Five Zones were marked as shown in Figure – 1. Tester served high from the right service court towards the forehand side of the subject. Player being tested stood in the right court moved towards the shuttle jumped and smashed it into the target area across the net and tried to score maximum points.

The score was awarded according to the point where the base of the shuttle struck the floor. Shuttles falling on a line were awarded higher point values. Shuttles going out bounds or falling short of the scoring zones scored no points. The subjects were 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 50 was possible on this test.

The skill (Forehand Overhead Jump Smash) for which the rating scale has been prepared was further subdivided into ten components in consultation with the experts including physical education teachers, selectors, officials and the N.I.S. trained coaches. The details of each component were prepared and then the rating scale was distributed to the experts for further comments, views and suggestions for improvement. The experts were consulted personally by the research scholar, and modified the rating scale based on their views and suggestions before finally preparing it. Each of the components of skill was scored on 5-4-3-2-1 basis. The average of the scores assigned independently by each of the three badminton experts was the final score of the rated player on Forehand Overhead jump smash. A maximum score of 50 was possible on the rating scale. Finally the total score of the subject was the sum of the scores obtained in the

test through objective analysis and the scores obtained in the rating scale through subjective analysis. Hence a maximum score of 100 was possible on the test (both subjective and objective analysis).



OBSERVATION AND DISCUSSION

Validity of the Forehand Overhead Jump Smash 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 FOREHAND
OVERHEAD JUMP SMASH TEST
SCORES TO THE CRITERION

S. No.	Variable Correlated with Criterion	Correlation Coefficient 'r'
1.	Forehand Overhead Jump Smash Test (Objective)	0.88*
2.	Forehand Overhead Jump Smash Test (Subjective)	0.82*

N = 50 *Significant at 0.05 level $r_{0.05}(48) = 0.273$

Table-1 revealed that there was significant relationship between the test scores and the criterion. Hence the test highly related to the criterion.

Interclass correlation by analysis of variance method was employed to compute the reliability of the Forehand Overhead Jump Smash Test through three trials administrated by the same tester. The data obtained as a result of the administration of the test judged by three 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 coefficients (R) values for the test have been presented in Table-2.

TABLE - 2
ANALYSIS OF VARIANCE FOR RELIABILITY AND
OBJECTIVITY ESTIMATES FOR THE FOREHAND
OVERHEAD JUMP SMASH IN BADMINTON

	Skill	S.V.	SS	df	MSS	F	R
Reliability	Forehand Overhead Jump Smash Test (Objective)	Sub	7797.173	49	159.126	0.185*	0.961**
		Trial	2.293	2	1.147		
		Inter	607.707	98	6.201		
		Total	8407.173	149			
Reliability	Forehand Overhead Jump Smash Test (Subjective)	Sub	7412.807	49	151.282	0.535*	0.984**
		Trial	2.520	2	1.260		
		Inter	230.813	98	2.355		
		Total	7646.140	149			
Objectivity	Forehand Overhead Jump Smash Test (Objective)	Sub	6857.793	49	139.955	1.104*	0.956**
		Trial	13.613	2	6.807		
		Inter	604.387	98	6.167		
		Total	7475.793	149			
Objectivity	Forehand Overhead Jump Smash Test (Subjective)	Sub	4595.207	49	93.779	0.881*	0.940**
		Trial	9.880	2	4.940		
		Inter	549.453	98	5.607		
		Total	5154.540	149			

*Insignificant at 0.05 level $\text{tab } F_{0.05}(98,2) = 3.09$

** Significant at 0.05 level $R_{0.05}(48) = 0.273$ N = 50

Table-2 revealed that the obtained inter class correlation values for reliability and objectivity of the Forehand Overhead Jump Smash Test ranged from 0.940 and 0.984, significant at 0.05 level because required value with 48 degree of freedom was 0.273. Hence the test has been considered reliable and objective.

Analysis of data on Forehand Overhead Jump Smash test in badminton indicated that the constructed test was found to be reliable and objective. The significant values showed that the directions for administration of the test were specific and clear for performance as well as evaluation.

Conclusions:

1. The Forehand Overhead Jump Smash Test in badminton showed significant relationship with the criterion.
2. The newly developed Forehand Overhead Jump Smash Test in badminton meet the criterion of scientific authenticity i.e. the test was reliable, objective and valid.

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