

Construction of Jump Shot Test in Handball

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ABSTRACT

The purpose of the study was to construct Jump Shot Test in Handball. One hundred male handball players from South-West Zone and North-East Zone Universities (four University teams from each Zone) who qualified for the All India Inter Zonal Varsity Handball Tournament held at Banaras Hindu University, Varanasi, Uttar Pradesh from 25th to 29th October 2002, were selected to serve as subjects for this study. The criterion measure was the average of the playing ability scores of the handball players assigned independently by three handball experts. It was concluded that the newly developed Jump Shot Test in handball meet the criterion of scientific authenticity i.e. the test was reliable, objective and valid.

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Handball is a rapid game of continuous action, requiring fitness and endurance as well as flexibility and balance. Good passing and catching skills enable a team to keep possession of the ball and thus go into the attack in order to score. Teams scores goals by getting the ball into their opponent's goal.

A high technical skill level with the support of solid physical fitness base will often bring success for a team even if its strategies are weak. The key to success in handball, as in a great many sports, lies in good fundamental skills. Since very limited research in the area of skills in handball has been done, the researcher felt the need to take up this study.

The purpose of the study was to construct a Jump shot test in handball.

Methodology:

All the one hundred male handball players from South-West Zone and North-East Zone Universities (four University teams from each Zone) who qualified for the All India Inter Zonal Varsity Handball Tournament held at Banaras Hindu University, Varanasi, and Uttar Pradesh from 25th to 29th October 2002 were selected to serve as subjects for this study. The age of the subjects ranged between 17 to 25 years.

The criterion measure was the average of the playing ability scores of the handball players assigned independently by three handball experts.

Jump shot test was developed through objective methods. The data for this study was collected through administering the jump shot test on one hundred handball players who participated in the All India Inter-Zonal Inter-Varsity Handball Tournament.

The coaches and managers of the teams were consulted at personal level to conduct the test on handball players, and a rapport was established with them for the testing programme. All those 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 tests, 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 skill 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 to shoot the hand all in goal using jump shot with accuracy. Test may be used with male college handball players.

A specific shooting zone was marked on the free throw line to provide the players to attempt the jump shot on the goal. The zone marking was in 60 degree angle area of the goal post. Goal post was also marked with the help of ropes. A rope was tied on both the uprights below the cross bar at 45 cm from the inner edge of crossbar. Two ropes were tied on the crossbar inside both the uprights at 45 cm from inner edge of both the uprights. Two more small pieces of ropes were tied with

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the uprights 45cm above the floor. A dotted line 45 cm away and in front of both the uprights and parallel to it was marked on the floor in the goal area. The player with a ball in hand stood in the shooting zone and on blowing the whistle the player moved quickly towards the free throw line and attempted the jump shot on the goal. Five attempts were given for each trial and three trials were given.

The points values allotted were 8 in all corner zones, 6 in remaining zone field up by ropes and 2 for rest of the zone in the goal post. 2 additional points for the zone dotted marked on the floor in front of goal post, determined on the basis of successful shots hitting crosses over the respective areas. However, no point was awarded when a ball went outside the goal post. The

score was the total points made in five attempts in each trails and the best of three trials was the score of the player. A maximum score of 50 was possible on this test.

Results and Discussion

Test-retest method was used to establish the reliability of the jump shot test. All the players were given three trials administered by the same tester and inter-class correlation coefficient by analysis of variance method was employed to compute the reliability of the tests. Analysis of variance for reliability estimates and the obtained reliability coefficient (R) value for the Jump shot test has been presented in Table-1.

**TABLE - 1
ANALYSIS OF VARIANCE FOR RELIABILITY ESTIMATE
OF JUMP SHOT TEST**

Source of Variance	Sum of Squares	Degree of Freedom	Mean Squares	F - Ratio	tab F	Inter - Class Correlation (R)
Subjects	18847.19	99	190.38			
Trials	14.64	2	7.32	1.417*	3.04	0.977**
Interaction	1022.69	198	5.19			
Total	19884.52	299				

*Insignificant at 0.05 level

tab F_{0.05} (198, 2) = 3.04

** Significant at 0.05 level

R_{0.05} (98) = 0.195

N = 100

The data obtained as a result of the administration of jump shot test and judged by three different handball experts who recorded the performance of the players independently was correlated in order to obtain

objectivity coefficient. Analysis of variance for objectivity estimate and the objectivity coefficient (R) value for the jump shot test has been presented in Table - 2.

**TABLE - 2
ANALYSIS OF VARIANCE FOR OBJECTIVITY ESTIMATE
OF JUMP SHOT TEST**

Source of Variance	Sum of Squares	Degree of Freedom	Mean Squares	F - Ratio	tab F	Inter - Class Correlation (R)
Subjects	18259.88	99	184.44			
Trials	14.59	2	7.29	1.462*	3.04	0.979**
Interaction	988.08	198	4.99			
Total	19262.55	299				

*Insignificant at 0.05 level

tab F_{0.05} (198, 2) = 3.04

** Significant at 0.05 level

R_{0.05} (98) = 0.195

N = 100

Correlation coefficient of jump shot test and the criterion variable has been presented in Table - 3.

TABLE – 3
RELATIONSHIP OF JUMP SHOT TEST TO THE CRITERION
(PLAYING ABILITY SCORES)

S. No.	Test	Coefficient of Correlation
1.	Jump shot Test	0.773*

* Significant at 0.05 level

$r_{0.05}(98) = 0.195$

N = 100

Discussion of Findings:

Analysis of data on jump shot test indicated that the constructed test in handball was found to be reliable. The findings of the study further reveal that the jump shot test in handball was 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 jump shot test showed highly significant relationship with handball playing ability.
2. The newly developed jump shot test in handball meet the criterion of scientific authenticity i.e. the test was reliable, objective and valid.

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