

Research Paper :

Construction of an objective skill test for Lay-up Shot in basketball

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ABSTRACT

The purpose of this study was to construct an objective skill test for lay-up shot test in basketball. Fifty male basketball players who participated in Inter-Collegiate / District level basketball tournament held at Holkar Science College, Devi Ahilya University, Indore from 27th to 28th October 2008, were selected to serve as a subjects for this study. The criterion measure was the scores obtained in Johnson's Basketball test. It was concluded that the newly developed Dribble and Lay up Shot Test in Basketball meet the criterion of scientific authenticity *i.e.* the test was reliable, objective and valid.

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Key words : Lay-up shot, Scientific authenticity, Criterion measure

In any game, be it indoor or outdoor, to have complete command perfection is needed. Game of basketball is no exception. This perfection comes out through certain skills and techniques. It is apparently clear that if a sportsman wants to declare his mastery over any game, he will have to be well equipped with the skills and strategies of that particular game.

The purpose of this study was to construct an objective skill test for Lay-up Shot Test in basketball.

METHODOLOGY

The experiment was initially conducted as a pilot study on 15 inter collegiate male basketball players on three different variations of lay up shot namely: Dribble and lay up shot, Underhand lay up shot and lay up shot with passive defense. Reliability of all the three tests was computed and the first test was statistically significant, whereas the other two were insignificant. Hence, the Dribble and Lay up shot test were selected for further study.

Fifty male basketball players who participated in Inter-collegiate/District level basketball tournament held at Holkar Science College, Devi Ahilya University, Indore on 27th and 28th October 2008, were selected to serve as a subject for this study. The age of subjects ranged between 18 to 25 years. The criterion measure was the scores obtained in Johnson's Basketball test.

The coaches and managers of the teams were consulted at personal level to conduct the test on

basketball players, and a rapport was established with them for the testing programme. All those in-charge 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 dribbling and lay up shooting in basketball. Test may be used with male college players.

The players being tested stood behind half court line, with a standard size basketball in his hands. On the signal "go" he started dribbling and executed the lay-up shot in the minimum time. After each lay-up shot, the player received the rebound and came out of the restricted area by dribbling the ball and then again attempted dribbling and lay up shot. The time keeper kept the time from the

signal “go” up to when the ball touched the ring after tenth lay-up shot attempt. One point was awarded for each successful basket. Three trials of the 10 lay-up shot attempts were given to each subject. Best of the 3 trials was the scores of the player. Lay up, Dribble and Lay up time and the composite scores of these two were calculated for further analysis.

OBSERVATIONS AND DISCUSSION

Test-retest method was used to establish the reliability of the Dribble and Lay up shot Test. All the subjects were given three trials administered by the same tester and inter-class correlation coefficients by analysis of variance method which was employed to compute the reliability of the test. The obtained reliability coefficients (R) value for the test has been presented in Table 1.

Table 1: Reliability of dribble and lay up shot test in basketball		
Sr. No	Test	R
1.	Dribble and Lay up shot Test	0.878*
2.	Lay up Shot test	0.750*
3.	Dribble and Lay up Shot test (Composite score)	0.870*

* indicates significance of value at P= 0.05 ; R_{0.05} (48) = 0.273

The data obtained as a result of the administration of Dribble and Lay up shot test and judged by three different basketball experts who recorded the performance of the subjects independently was correlated in order to obtain objectivity coefficients. The objectivity coefficients (R) value for the test has been presented in Table 2.

Table 2: Objectivity of dribble and lay up shot test in basketball		
Sr. No.	Test	R
1.	Dribble and lay up Shot test	0.776*
2.	Lay up Shot test	0.727*
3.	Dribble and lay up Shot test (Composite Score)	0.641*

* indicates significance of value P= 0.05; R_{0.05} (48) = 0.273

Correlation of Dribble and Lay up shot test and the criterion variable has been presented in Table 3.

Table 3: Validity of dribble and lay up shot test in basketball		
Sr. No.	Test	R
1.	Dribble and Lay up shot Test	0.776*
2.	Lay up shot Test	0.727*
3.	Dribble and Lay up shot Test (Composite Score)	0.641*

* indicates significance of value at P= 0.05 level
R_{0.05} (48) = 0.273

Analysis of data on Dribble and Lay up Shot test indicated that the constructed test in basketball was found to be reliable. The findings of the study further reveal that the Dribble and Lay up Shot test in basketball 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. Finally the constructed test for the Dribble and Lay up shot was also found to be valid as the test items scores correlated significantly with the scores obtained in Johnson Basketball Test.

Conclusion:

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

- The Dribble and Lay up Shot test showed significant relationship with Johnson Basketball Test scores.
- The newly developed Dribble and Lay up Shot tests in basketball meet the criterion of scientific authenticity *i.e.* the test was reliable, objective and valid.

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