

VALIDATION OF SPECIFIC AGILITY TESTS FOR SELECTED SPORTS

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INTRODUCTION

In today's Techno-Scientific age, the world is progressing with tremendous speed in field of life and is has not even spared games and sports which are expanding and progressing continuously. Sportsman and Coaches not being satisfied to rest on their laurels are making their utmost endeavors to put their best foot forward to attain higher and higher standards through training and exercises. Scientific knowledge has revolutionized the standard of performance in sports disciplines. Now, because the coaches strive to get optimum performance with minimum expenditure of energy and time, the player's and Athlete are trained on scientific guidelines. This can be observed on the basis of the facts that the present day world and Olympic records are much more improved than those of earlier days. The ancient saying that the "Athletes are never made, they are born" has been revised now. We believe now that the Sportsman is born with certain inherent qualities but they can be trained and shaped into further better Sportsmen.

Physical fitness plays very important part in acquiring and developing skill in team games i.e. Soccer, Hockey, Volleyball and Basketball etc. speed, strength Agility, Flexibility, Endurance and Neuromuscular coordination are pre-requisites to sports performance.

Agility is the ability to change direction quickly and to control body movement, skills requiring rapid movement to entire body in different directions and in response to unexpected circumstances in some activities. The ability to stop and start to change direction accurately and quickly is much more important. In sports such as hockey, a basketball, badminton, tennis etc. agility is one of the most important factors. This may be measured by such tests as the shuttle run and activities that require a quick change of direction.

Hockey is a just moving and exciting game requiring quick thinking as well as physical skills. It gives pleasure to players and spectators alike and the greater the skill the greater the pleasure. The game of hockey requires abundance of to combine, intelligence speed of judgment speed of physician and mental reaction and experience with stick and the ball.

Volleyball is a game which requires a specific type of agility in which a player has to turn, dive, get up and move quickly to a better performance. Volleyball is one of the fastest games in which techniques player to have a higher level of increase in agility to play. Basketball is one of the fastest games in the world, which requires zigzag movements, turning and jumping ability. To perform such movement high level of agility is required.

Methodology:

Sixty (60) male students of Lakshmbai National Institute of Physical Education (20 each from 3 games) in different selected sports i.e. Hockey, Volleyball and Basketball were selected as subject foe the study. From the literature search and discussion with the experts the following agility tests were selected:-

Squat Thrust

Shuttle run test

SEMO agility test

Right Boomerang test

Dodging run test

The tests were conducted on the subjects and data were collected on the bases on performance in the test. For measuring the playing ability in three games a panel of 3 experts was constituted. The subjects from each game were divided into 2 equal teams and they were asked to play among each other and on the bases of their technical and tactical performance in actual game situation the subjects had been graded. To find out the relationship between the various agility tests pertaining to various games and the playing ability the product moment correlation method was employed. The level of significance was set at 0.05 level.

Results

Test retest method was employed to determine the reliability of performance of subjects. The performance of subjects for various agility tests were recorded 2 times, with a gap of one day under identical condition. The person’s product moment correlation method was employed and coefficient of reliability obtained is presented in table-I.

Table-I
Reliability Coefficient of Test Retest Scores

S.No.	Agility Test	Co-efficient Correlation
1.	Shuttle run test	.79
2.	SEMO agility test	.76
3.	Dodging run test	.82
4.	Right Boomerang test	.84
5.	Squat Thrust	.86

To find out the relationship between Basketball, Volleyball and Hockey playing ability and selected agility test items person's product moment correlation method was employed and the data pertaining to this is presented in table II,III and IV:-

Table-II
Relationship of different Agility tests to Basketball Playing Ability

S.No.	Agility Test	Correlation
1.	Shuttle run and Basketball Playing Ability	0.1943
2.	SEMO agility and Basketball Playing Ability	0.4577*
3.	Dodging run and Basketball Playing Ability	0.1497
4.	Right Boomerang and Basketball Playing Ability	0.0191
5.	Squat Thrust and Basketball Playing Ability	0.1010

Significant at 0.05 level $r(18) = 0.444$

Table No.(II) indicates that the SEMO agility test is highly related with the Basketball playing ability (0.457). There is limited relationship between shuttle run and Basketball playing ability (0.194); Dodging run and Basketball playing ability (0.149); squat thrust and Basketball playing ability (0.101); Right Boomerang Test and Basketball Playing Ability (0.191).

Table-III
Relationship of different Agility tests to Volleyball Playing Ability

S.No.	Agility Test	Correlation
1.	Shuttle run and Volleyball Playing Ability	0.6657*
2.	SEMO agility and Volleyball Playing Ability	0.4014
3.	Dodging run and Volleyball Playing Ability	0.1407
4.	Right Boomerang and Volleyball Playing Ability	0.5049*
5.	Squat Thrust and Volleyball Playing Ability	0.3690

Significant at 0.05 level $r(18) = 0.444$

Table No. (III) Indicates that the shuttle run test is insignificantly related with the Volleyball playing ability (0.665). This table also shows that the right boomerang test also having relation with Volleyball playing ability (0.504). There is insignificant relationship between other tests with volleyball playing ability.

Table-IV
Relationship of different Agility tests to Hockey Playing Ability

S.No.	Agility Test	Correlation
1.	Shuttle run and Hockey Playing Ability	0.2089
2.	SEMO agility and Hockey Playing Ability	0.3009
3.	Dodging run and Hockey Playing Ability	0.5519*
4.	Right Boomerang and Hockey Playing Ability	0.1752
5.	Squat Thrust and Hockey Playing Ability	0.2458

Significant at 0.05 level $r(18) = 0.444$

The table No (IV) reveals that the dodging run test is significantly related with the Hockey playing ability (0.551). There are insignificant relations between SEMO agility, shuttle run, Right Boomerang and Squat Thrust test with Hockey playing ability.

Discussion

The results of study show that there are different agility test effective in different games/sports. The SEMO agility test is the most effective test in terms of its relationship with Basketball playing ability. In game of Basketball the players are required to move forward, Backward and side ward in order to be effective. At times a player has to move forward backward in order to cut-in to receive a pass, further, a defensive Basketball player is required to make varied kinds of movements. The findings of the study also reveals that the most effective test in terms of its relationship with volleyball playing ability is shuttle run and right boomerang test. A game of volleyball requires players to move in different directions in order to receive, set-up as well to spike. So, to defend as well as out-wit to an opponent. The significant relationship between shuttle run and volleyball playing ability can be attributed to the demands of the game of volleyball where different types of movements especially forward movement is required for instance a server is required to move forward immediately after serving in order to assume an appropriate position for receiving the ball. Similarly, a spikier or a blocker is required to move forward besides jumping so as to, either spikier or block the balls.

The relationship between right boomerang test and volleyball playing ability may be due to the reason that player tends to turn from his right side in order to receive the ball as receiving the ball with the right hand is easier than the left hand. Because normally right hand is one dominating hand. In games where a specific area is to be covered, the general psychology of the player is to stand somewhat towards to his left so, as to give the impression that the left side is covered as, to make the opponent serve or place or smash in the gap which is towards fight hand side. Turning to the right hand side becomes easier and one is successful in making the opponent play in an area where the player is strong. The dodging run test has most significant relationship in terms of its relationship with hockey playing ability.

Dodging run is significantly related to a game of hockey. This may be due to the fact that hockey players are required to dribble in zigzag manner in order to dodge the opponent further, a hockey player without the ball is also required to make various dummy moves in different directions in order to shake him off.

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