



## CONSTRUCTION OF SPIKING SKILL TESTS AND COMPILATION OF NORMS FOR COLLEGE LEVEL WOMEN VOLLEYBALL PLAYERS

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**ABSTRACT** The purpose of the study was to construct a new skill test battery and to develop standard norms for college level women Volleyball players of Karnataka state. To achieve the purpose one hundred (N=100) women Volleyball players studying in various colleges in Bengaluru District, Karnataka were selected at the age group of 18 to 21 years. All the subjects were informed about the objective and protocol of the study. After careful assessment of the present skill tests, the investigator constructed only skill tests namely Spiking Ability. In order to construct the norms, Hull scale was used. Further, the scores were classified into seven grades i.e. very poor, poor, below average, average, above average, good and excellent.

**KEYWORDS :** Skill Tests, Volleyball, Spiking

### INTRODUCTION

Sports skill test are designed to measure the basic skills used in the playing of a specific sport. Because of the wide range of skills in most sports, a selection of the most important skill is invariably necessary. The selection is usually based keeping in mind the literature available, opinion of experts as well as by applying appropriate statistical techniques. The skill items collectively are called test battery. The skill test helps the students to evaluate their performance in the fundamental skills the game and to provide an incentive for improvement. The test also serves the purpose of helping the teachers/coach to measure student's/player's performance and to evaluate their own teaching/coaching procedure and programme.

Skill tests reflect the ability of the pupil to perform in a specified sport. By knowing the ability of a youngster in a particular game or sport it then becomes possible to use his skill ability score for such purposes as classification determining progress and marking.

For example, the first time teacher or coach meets a class in a game, it would be advisable to place the pupils of like ability in order to facilitate teaching. Administering a skill test during the first meeting of the class permit the teacher to group the youngsters for instruction immediately.

Administering the skill test at the beginning and end of the course permits the instructor to observe the progression of the class and provides a means for making the pupil.

Skill tests are constructed in most cases by careful studies of the various components or skills in the game deemed vital for successful performance. One might proceed in accordance with the following general outline in constructing (Donald, 1973).

A skill test comprises of a variety of test methods, including objective procedures, subjective ratings, and direct performance assessment. Motor ability testing has a long history in human performance and will take on increased importance in athletics and employment testing. The most important consideration is to select valid tests that meet one's test objectives and are feasible in terms of time and effort. Kirby (1991) is an excellent resource for descriptions and critiques of motor performance tests.

Valid tests are constructed through scientific research and scientific research always must depend on valid tests for securing objective data. A test must first be reliable in order for it to be valid to truthfully measure, what it purports to measure. Validity can be subdivided into several different types, such as content-related validity, criterion-related validity, and construct related validity. Sports skill tests are good examples of criterion related validation procedures. Hensley and East, (1989) and Hopkins, Schick, and Plack (1984) provide excellent examples of the procedures used to validate sport skill tests. A criterion measure must first be developed and then a variety of skill

tests (i.e. a test battery) correlated with the criterion measure to determine which of these are most valid and most helpful in estimating the criterion. If a series of tests is used to estimate the criterion, multiple correlation procedures are used rather than the simple Pearson correlation coefficient.

### MATERIAL AND METHODS

**Subjects:** For the purpose of the present study, one hundred (N=100) women Volleyball players studying in various colleges in Bengaluru District, Karnataka were selected at the age group of 18 to 21 years volunteered to participate in the study. All the subjects were informed about the objective and protocol of the study.

**Methodology:** Spiking Test was conducted to test the skill in the volleyball serve consistency and accuracy.

**Statistical Technique Employed:** The data, which was collected by administering tests, was statistically treated to develop for all the test items. In order to construct the norms, Hull scale was used. Further, the scores were classified into seven grades i.e. very poor, poor, below average, average, above average, good and excellent.

### RESULTS AND DISCUSSION

The data collected from one hundred Karnataka state women Volleyball players on constructed Spiking Test were statistically analyzed with the help of mean and standard deviation. The norms were prepared by using Hull Scale.

To construct the norms for the subject's Spiking Test were made statistical treatment. The mean value obtained was 6.49 points with standard deviation of  $\pm 1.42$ . The hull scale was worked out to 0.10. To construct norms, the Hull scale value 0.10 was serially added to and subtracted from the mean for determining the values from zero to hundred in the scale.

Since numeral value of points and the standard of performance go in parallel proportions, the Hull Scale value of 0.10 points was added from the mean score of 6.49. Hence the college women Spiking Test performance for 51<sup>st</sup> score was 6.59 points. Similarly for the 49<sup>th</sup> score Hull scale value was deducted to mean score resulting 6.39 points. A subject performing 8.99 obtained 75 points in the scale. A subject performing 4.99 obtained 35 points in the scale. A subject performing 11.49 obtained 100 points in the scale.

The norms thus constructed from zero to hundred for Karnataka state women Volleyball players in Spiking Test is presented in Table-1.

**Table – 1 The Hull Scale Of Norms For The Evaluation Of Spiking Test Among Karnataka State Women Volleyball Players**

|    | 0    | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    |
|----|------|------|------|------|------|------|------|------|------|
| 0  |      | 1.59 | 1.69 | 1.79 | 1.89 | 1.99 | 2.09 | 2.19 | 2.29 |
| 10 | 2.49 | 2.59 | 2.69 | 2.79 | 2.89 | 2.99 | 3.09 | 3.19 | 3.29 |

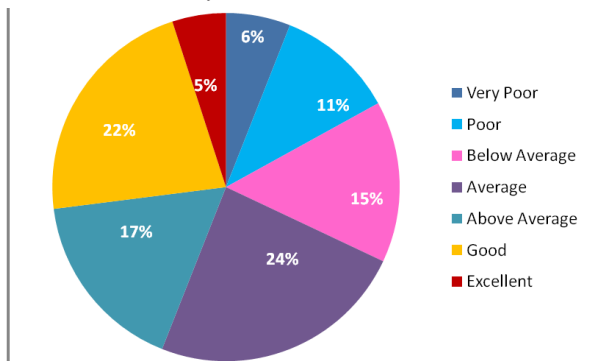
|     |       |       |       |       |       |       |       |       |       |
|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 20  | 3.49  | 3.59  | 3.69  | 3.79  | 3.89  | 3.99  | 4.09  | 4.19  | 4.29  |
| 30  | 4.49  | 4.59  | 4.69  | 4.79  | 4.89  | 4.99  | 5.09  | 5.19  | 5.29  |
| 40  | 5.49  | 5.59  | 5.69  | 5.79  | 5.89  | 5.99  | 6.09  | 6.19  | 6.29  |
| 50  | 6.49  | 6.59  | 6.69  | 6.79  | 6.89  | 6.99  | 7.09  | 7.19  | 7.29  |
| 60  | 7.49  | 7.59  | 7.69  | 7.79  | 7.89  | 7.99  | 8.09  | 8.19  | 8.29  |
| 70  | 8.49  | 8.59  | 8.69  | 8.79  | 8.89  | 8.99  | 9.09  | 9.19  | 9.29  |
| 80  | 9.49  | 9.59  | 9.69  | 9.79  | 9.89  | 9.99  | 10.09 | 10.19 | 10.29 |
| 90  | 10.49 | 10.59 | 10.69 | 10.79 | 10.89 | 10.99 | 11.09 | 11.19 | 11.29 |
| 100 | 11.49 |       |       |       |       |       |       |       |       |

**Table – 2 The Qualitative Grading For The Constructed Norms For The Evaluation Of Spiking Test Of Karnataka State Women Volleyball Players**

| Score  | Qualitative Grading | Number of Subjects in Each Grade | Percentage |
|--------|---------------------|----------------------------------|------------|
| 0-10   | Very Poor           | 6                                | 6          |
| 11-25  | Poor                | 11                               | 11         |
| 26-40  | Below Average       | 15                               | 15         |
| 41-55  | Average             | 24                               | 24         |
| 56-70  | Above Average       | 17                               | 17         |
| 71-85  | Good                | 22                               | 22         |
| 86-100 | Excellent           | 5                                | 5          |

Based on the norms constructed, the qualitative grading was done among the Karnataka State women Volleyball players in Table-4.15. It was found that 6 players forming than 6% of the total tested were very poor, 11 players forming 11% of them were poor, while 15 players forming 15% were below average; 24 players forming 24% were average, 17 players forming 17% were above average, while 22 players forming 22% were Good and 5 players forming were 5% of the total population were Excellent.

The evaluation made on the basis of the norms and gradation was presented through pie diagram in Figure–4.5 for better understanding of the results of this study.



**Figure-4.5 Pie Diagram Showing The Gradation Of Karnataka State Women Volleyball Players In Spiking Test**

**CONCLUSIONS:**

1. It was concluded that the skill tests constructed possessed objectivity as the tests have been carefully constructed with great care, clear test directions, precise scoring methods, and adherence of them. Through the constructed skill tests norms have been constructed and the women players were classified.
2. It was concluded that the newly constructed battery of tests would truly measure the women Volleyball skills of an individual.
3. It was concluded that the playing ability of Karnataka State women College Volleyball players can be measured through the performance of players in the skill test of the battery proposed.
4. It was concluded that the women players in skill test would have positive correlation with the experts rating on the game performance.

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