

## **CHAPTER-V**

### **SUMMARY, FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

In sports and games, performance of players is judged by competition results. Apart from competition, the assessment of a player in any sports discipline can be done either by subjective or objective means. Generally the subjective assessment is done by the experts, which has certain limitations. The objective assessment can be done by the skill tests of the relevant sports discipline. Sports skill tests are designed to measure the basic skills used in the playing of a specific sport. The nature of the game should be analyzed in steps in order to determine the skills that are to be measured. Because of the wide range of skills in most sports, a selection of the most important skills is invariably necessary. The skill tests batteries have been used in physical education and sports to assess the skills of the players. The degree of perfection of sports skills obviously varies significantly with the level and gender of the players.

High level performance in any game depends upon the mastery of the fundamental skills. Norms are necessary if the test scores are to be adequately interpreted. There are several types of skills and it depends on the purpose of the test and characteristics of the group to be tested as to which type is selected.

Moreover recent developments in Netball, have increased the number of technical demands made on Netball players at all levels. Coaches, trainers and players are continually searching for effective methods of identifying and developing those characteristics in a player that may enhance performance. Due to the modern demands of the game, there is a need of highly reliable and valid test for Netball.

Research work done in the field of netball is very limited. Some studies have been done relating to test and measurement in netball but none has been conducted to measure the skill ability or playing ability of netball players. However, literature does exist in relation to the construction of skill test in the areas other than netball. This research work was an attempt to develop a specific skill test battery for netball players in female section.

The problem of present research was entitled as “Construction and standardization of Netball Skill Test for Female Players”.

Objectives of the research were to develop the Netball skill test Battery and to prepare the norms for the test battery for female players.

The study was delimited to the passing, catching, pivoting, shooting and defensive skills of netball, and sixteen test items were selected for the research work. Chest pass, shoulder pass, overhead pass, bounce pass with single hand, bounce pass with double hand and lob pass of passing and catching skills; Jump shot with single hand, jump shot with both hands, 6ft shooting, 9ft. shooting, 12 ft. shooting and lay-up shot for shooting and catching skills; single foot landing and double foot landing of pivoting skills; Zig-Zag run and defensive movement for defensive skills were chosen.

This study was descriptive in design to collect the data for selected test items and the statistical procedure was applied to develop the Netball skill test battery and norms for the female players.

With the purposive sampling technique, for pilot study, ninety eight (98) women netball players and for main study three hundred and twelve (312) women netball players of India between 17 to 25 years of age were selected. The subjects who had past experience in the field of netball and only those who represented at national/Inter-university level were taken as subjects. The data was collected during coaching camps and competitions of junior netball national championship and youth India camp in the year 2018-19, and 2019-20.

All the statistical calculation were calculated through SPSS version 22. Validity, Reliability and Objectivity was established for the selected test items. Factor analysis technique was used to develop the specific skill test battery for the female netball players.

Through the Factor Analysis technique and Content Validity Ratio, seven skill tests namely; Jump Shot Single, Nine Feet Shooting, Shoulder Pass, Landing double, Bounce Pass Single, Lob Pass and Up Down were selected to construct the test battery.

All these test had high rotated loading values such as Jump Shot Single 0.80, Nine Feet Shooting 0.79, Shoulder Pass 0.69, Bounce Pass Single 0.84, landing double 0.89, Lob Pass 0.60 and Up- Down defensive movement 0.71.

Cronbach's Alpha was applied to establish the reliability of the test items. The reliability coefficient was 0.78.

The test-retest method was used to determine the objectivity of all the items for construction of test. Twenty female netball players were tested by the investigator on 2 different occasions after a gap of two days. The objectivity of all the test items were found significantly high.

Norms have been developed for selected test items from the whole sample (312 subjects). Cronbach's Alpha was applied to establish the reliability of seven test items. Cronbach's alpha coefficient was 0.68 which determined the internal consistency of the items in the scale. Descriptive Statistics i.e. mean, standard deviation along with Skewness and kurtosis was applied to check Normal distribution of the seven Netball skill test items. All individual performances of the seven skill test items were converted as composite score. Finally, grading scales were developed i.e. Very Good, Good, Average , Poor and Very Poor based on Six-sigma scale to interpret the Jump Shot Single Ability, Nine feet shooting Ability, Shoulder Pass Ability, Bounce Pass Single Ability, Landing Double ability, Lob Pass ability and Up-down defensive ability of netball players.

## **FINDINGS**

On the basis of results, it was found that:

1. Seven netball skill test items namely; Jump Shot Single 0.80, Nine Feet Shooting 0.79, Shoulder Pass 0.69, Bounce Pass Single 0.84, Landing Double 0.89, Lob Pass 0.60 and Up Down Defensive Movement-0.71 had high rotated loading among the sixteen test items and considered for construction of netball skill test battery.
2. Grading scales developed to interpret the abilities on all the seven skill test items are presented in the table 5.1

**Table 5.1****Grading Scale for the interpretation of playing abilities of netball players.**

<b>Test variable</b>	<b>Very poor</b>	<b>Poor</b>	<b>Average</b>	<b>Good</b>	<b>Very good</b>
Jump Shot Single	Less than 6	6 to 13	14 to 21	22 to 29	Above 29
Nine Feet Shooting	Less than 3	3 to 6	7 to 9	10 to 13	Above 13
Shoulder Pass	Less than 18	18 to 22	23 to 27	28 to 31	Above 31
Bounce Pass Single	Less than 14	14 to 20	21 to 27	28 to 34	Above 34
Landing Double	Less than 2	2 to 3	4	5	Above 5
Lob Pass	Less than 1	1 to 3	4 to 5	6 to 8	Above 8
Up-down	Less than 0.23	0.23 to 0.68	0.69 to 1.14	1.15 to 1.59	Above 1.59

**CONCLUSIONS**

Within the limitations of the present study, the following conclusions are enumerated:

1. Netball skill test battery for female players consisting of seven test items namely; Jump Shot Single, Nine Feet Shooting, Shoulder Pass, Bounce Pass Single, Landing Double, Lob Pass and Up-Down Defensive Movement was constructed by Factor analysis technique.
2. Netball Skill test battery for female players constructed by the investigator is valid, reliable and objective to judge the playing ability of the players.
3. The Norms for Netball skill test battery were developed for the selected test items by employing two normative scales i.e. percentile scale and six-sigma scale.
4. Five grades were prepared namely very poor, poor, average, good and very good under normal distribution on the basis of results of the present scores.
5. The newly constructed Netball Skill test battery meet the criterion of scientific authenticity i.e. reliable, objective and valid.

## **RECOMMENDATIONS**

In the light of findings of the present study, the following recommendations are made:

1. The constructed test battery may help the coaches and physical educators to have periodical monitoring of the performance of players during the training and coaching period and evaluate their players more accurately.
2. These norms developed in the present study can be used to assess the skill level, classification and selection of Netball players for different levels of competition.
3. The study would provide coaches with realistic and objective information about the standard of the players in order to improve the specificity of training to prepare individuals for optimal performance.
4. It is recommended that a similar study may be conducted by selecting subjects belonging to different age groups and levels of achievement other than those employed in the present study.
5. A similar study may be conducted on different role specific positions (i.e GA,GS, WA, C, WD, GD and GK)
6. A similar study may be conducted on various sports and games.
7. This game is increasingly becoming popular in men section also, therefore, identical study may be taken up to develop netball skill test battery for male players.