

Development and Standardization of a Test Battery for Selection of Football Players

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Abstract

The football players of the Maharashtra playing at junior state football tournaments were considered as the total population of the study. Of the total population convenience sampling method was used to select the sample for the current study. The data was collected from total of 511 samples who participated at various school and association during the year 2008-09 and 2009-10. After step wise data collection, they were processed through a series of statistical analysis. The descriptive statistics of the collected score was done. The mean, median and standard deviation was calculated. To find out the normality of the scores the skewness and the kurtosis were found out. Some of the scores from the data were removed as they were outliers. The outliers were found with the help of Box plots through SPSS. The Percentile method was used to create norms. The present norms of 12 finally selected test items indicate that the distribution of scores of almost all the test-items resides in the normal range of probability curve. The raw data was further converted into standard scores for the combining or comparing scores.

KEYWORDS: Development, Standardisation, Test Battery, Football Player

Introduction:

Football is the most popular sport in the world. The game of football requires players to perform activities like jogging, running (forward and backward), kicking, and turning, heading and throwing. Fitness is very factor important for all the players on the field. Fitness of the players helps them to from getting fatiguing easily, to improve the skills and tactics of the game and show good match performance. Football in India was spread during the days of the British Empire. Many football clubs in India were created during this time, the national football team was also quite successful until the 1970s, In spite of growing popularity and specific training methods being imparted on the football players by efficient coaches the performance in national and international level is below expectancy. For the purpose of study selection of team was done on viewing match performances and not on the basis of fitness which was important. As there are no standardized Test Batteries for assessing and evaluating football players, the researcher thought of undertaking this study entitled, "Development and Standardization of a Test Battery for Selection of football Players" to establish proper norms and preparing a test battery is essentials for selection of players in a football team.

Objective:

1. To Development a Test Battery for Selection of football Players.
2. To Standardize a Test Battery for Selection of football Players.

Subjects:

The football players of the Maharashtra playing at junior state football tournaments were considered as the total population of the study. Of the total population convenience sampling method was used to select the sample for the current study. The data was collected from total of 511 samples who participated at various school and association during the year 2008-09 and 2009-10.

Selection of performance dimensions:

On the basis of several research reports, five major dimensions (morphological, Physiological, Psychological, Physical fitness and skill), were considered with a view to discriminate players for composing a State level Football team. The test-items were further confirmed to be included in the test, after a deep study of various related literature and related study and after taking opinions of various experts in the area of Physical Education and Sports. Physical fitness tests, skill tests, and PEFr were included in the final test battery which was used for assessment and team selection as studies have proven their importance in prediction of football playing ability. Height and weight of football was not considered as a selection criteria as football has minimal structural limitations. BMI for athletes can overestimate their level of body fat

because muscle is denser than fat and weighs more. Respiratory rate was also not included in the final test battery as there is little difference between the respiratory rates of normal adult and that of the athletes. Resting heart rate was not included in the final test battery as it has a range which has been prescribed through various researches and anything below and above the recommended range is not proven to be good or bad.

Pilot study:

'Pilot Study' of these new test-items was conducted on 30 (n=30) male Football players, below 19 yrs., of Satara district. During the pilot study various factors related to administration of the tests were checked for further smooth facilitation of the data collection.

Statistical analysis:

After step wise data collection, they were processed through a series of statistical analysis. The descriptive statistics of the collected score was done. The mean, median and standard deviation was calculated. To find out the normality of the scores the skewness and the kurtosis were found out. Some of the scores from the data were removed as they were outliers. The outliers were found with the help of Box plots through SPSS. The Percentile method was used to create norms. The present norms of 12 finally selected test items indicate that the distribution of scores of almost all the test-items resides in the normal range of probability curve. The raw data was further converted into standard scores for the combining or comparing scores.

Reliability, objectivity and validity of the test battery:

The test battery was standardization by determining the objectivity, reliability and validity. Test retest for reliability, correlation between different observers for objectivity and face validity were taken into consideration for the standardization of the test battery, data of the same is presented in table 1 and grading scale is presented in table 2.

Table 1
Reliability, objectivity and validity of the test battery

| Test Battery components | Reliability coefficient | Objectivity coefficient | Validity |
|-------------------------|-------------------------|-------------------------|------------------|
| Skill | 0.89 | 0.90to0.94 | Content validity |
| Physical Fitness | 0.97 | 0.92to0.97 | Content validity |
| PEFR | 0.98 | 0.97to0.98 | Content validity |

Table 2
Grading Scale on Item-wise Performance for Selection of Football Players

| Test-Items | Poor | Average | Good | Excellent |
|--------------------------|-----------------|----------------|----------------|-----------------|
| Bent Knee Sit-Ups (Reps) | 27 and Below | 28 to 31 | 32 to 36 | 37 and Above |
| Shuttle Run (sec) | 12.20 and Above | 12.19 to 11.87 | 11.86 to 11.21 | 11.20 and Below |
| 50 m Run (sec) | 7.10 and Above | 7.9 to 6.77 | 6.76 to 6.36 | 6.35 and Below |
| SLBM | 24 and Below | 25 to 31 | 32 to 41 | 42 and above |
| Sit and Reach (cm) | 42 and Below | 43 to 48 | 49 to 55 | 56 and Above |
| Standing Broad Jump (m) | 170 and Below | 171 to 190 | 191 to 199 | 200 and Above |
| 12 min Run & Walk (m) | 2310 and Below | 2311 to 2570 | 2571 to 2709 | 2710 and Above |
| PERF | 420 and Below | 421 to 480 | 481 to 509 | 510 and Above |
| McDonald Test | 10 and Below | 11 to 12 | 13 to 14 | 15 and Above |
| Running with the ball | 7.03 and Above | 7.02 to 6.45 | 6.44 to 5.90 | 5.89 and Below |
| Juggling | 21 and Below | 22 to 25 | 26 to 30 | 31 and Above |
| Kicking | 6 and Below | 7 | 8 | 9 and Above |

The performance norms of each item were graded as poor, fair, average, good, and excellent on the basis of Rank order method. Grading scale of the composite score was given to help in selection. Working of Test Battery- After detailed study the test items which were included were divided into 3 groups

1. Physical Fitness
2. Skill
3. PERF

Summation of the scores of all above test is possible but it that has some drawback which could create problems during the selection making it faulty and problematic which could be minimized by dividing the test in three heads in which skill test being the preliminary test where the athletes should score at least score average in the composite score to be considered for the further physical test score to be considered. The score of tests under each head should be added separately to get three scores and then considered for selection.

Result and conclusion:

The present study will be a significant contribution to the field of football and sports in general. The knowledge from this study will supplement the literature of Indian Physical Education and Sports, in general, and junior level football in particular. The study will be helpful to selection committee, coaches, physical education teachers, clubs and players. The test battery constructed should be used by selectors to select junior football teams. The norms should be certainly one of the criterions to be reached by players to be in the junior football team. Even if the test battery is constructed for selection junior football players it should be used as an assessment tool of the players to determine the standards of the player. The Norms available should be use to distinguish players having excellent potential. Football coaches and physical education teachers should use the norms for assessing and evaluating their players and getting feedback of improvements. Similar studies related to different age group and games should be done. Researcher recommends the use of test battery, norms and grading prepared.

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