Construction of Norms for Skill Test in Kabaddi

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Abstract

**Background:** The purpose of this study was to construct the norms for evaluating performance of players in the game of kabaddi.

**Methods:** For this purpose four hundred male college level Kabaddi players were randomly selected from various colleges of Tamilnadu state, India and their age ranged from 18 to 20 years. The performance of Kabaddi players were assessed by using the skill test battery constructed by R.Jagathesan and Dr. M. Ganeshkumar was chosen for this study. The data, which was collected by administering tests, was statistically treated to develop norms for all the test items. The norms were constructed by using percentile and 6 sigma scale techniques analyzed through SPSS.

**Results:** The scores were further classified into five grades i.e. excellent, good, average, satisfactory and poor.

**Key Words:** Kabaddi, Skill Test, Norms, Scales, Grades.

INTRODUCTION

Through evaluation, a teacher/coach can know the extent to which learning has taken place. Hence, the teacher/coach must be aware of some evaluation techniques, which will enable him to measure the student’s/player’s skill objectively and classify them initially as well as by measuring the progress made by them. There is few skill tests in various physical activities, which help to measure the playing abilities of the students/players in different games and 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 of the game and to provide an incentive for improvement. Kabaddi is aptly known as the "GAME OF THE MASSES" due to its popularity, simple, easy to comprehend rules, and public appeal. The game calls for no sophisticated equipment what so ever, which makes it a very popular sport in the developing countries. Though it is basically an out door sport played on clay court, of late the game is being played on synthetic surface indoors with great success. (Prasad & Rao, 2002).

Norms are necessary if the test scores are to be adequately interpreted. There are several types and it depends on the purposes of the test and the characteristics of the group to be tested as to which type is selected. According to Rothstein, (1985) the procedure for developing norms starts with the collection of scores on the test from a large samples from the population for which the test was intended. The collected scores can be converted into some type of normative scores.
On the basis of these norms performance and achievement can be adequately evaluated, scores can be properly interpreted and groups can be compared.

MATERIALS AND METHODS

For this purpose four hundred male college level Kabaddi players were randomly selected from various colleges of Tamilnadu state, India and their age ranged from 18 to 20 years. The performance of Kabaddi players were assessed by using the skill test battery constructed by R.Jagathesan and Dr. M. Ganeshkumar was chosen for this study. The data collected by administering tests, was statistically treated and develop norms for all the test items. The norms were constructed by using percentile and 6 sigma scale techniques analyzed through SPSS.

The skill test was administered to all the subjects by the research scholar himself. The scores of each test items were recorded by the research scholar on the basis of performance in test. The subjects were given adequate demonstration, practice trials and required instructions for all the tests. The subjects were exhorted to give their best performance. Two scales namely percentile and 6 sigma scale were used. The four test items, namely side target kick, on the spot bonus, leg thrust reach ability and target ankle hold were chosen as the criterion measures.

SIDE TARGET KICK

Purpose

The purpose of the test was to measure the speed kicking ability of the kabaddi player.

Facility Required

A place with 10 X 5 meters.

Equipment

Measuring tape, a ball, marking powder, hanging device, stop watch and score sheet

Marking

The starting line was marked with the two meters width. Another two lines were marked from the starting line with the distance of six and seven meters with two meters width. The hanging device was placed at the centre of the line which was marked with the seven meters distance from the starting line. The ball was kept as hanging position with height of one meter from the floor and one meter projected towards the starting line.

Procedure

The players were asked to stand in the starting line. When the signal given by the investigator the player asked to run side wards and kick the ball which hanged and return the starting line three times.

Scoring

The nearest time was recorded in seconds as score from starting to finish. Three trials were given to all the players. The best score was recorded as final score.
ON THE SPOT BONUS

**Purpose**
The purpose of the test was to measure the ability of spot bonus ability of the kabaddi player.

**Facilities Required**
A half Kabaddi court.

**Equipment**
Measuring tape, stop watch, marking powder and score sheet.

**Marking**
Lay out of half size Kabaddi court was essential. There was a foot marking in the bulk line. Another two foot marks were marked beyond and close to the bonus line with fifty centimeters gap between two marks and centered with the mark on the bulk line.

**Procedure**
The players were asked to stand on the marking on the bulk line. On the signal the player was asked to move the leg (right or left) and touch the marked area in the bonus line alternatively up to thirty seconds.

**Scoring**
The total number of touches by the player was considered as score. Three trials were given to all the players. The best score was considered as final score.

LEG THRUST REACH ABILITY

**Purpose**
The purpose of the test was to measure foot reach ability of the kabaddi player.

**Equipment**
Measuring tape, marking powder and score sheet.

**Marking**
There was a line with two meters length. Another line was drawn which was perpendicular to the previous line and marked in centimeters up to three meters.
Procedure
The players were asked to sit in crouch position on the two meters line by facing his back to the three meters line. Heel part of the foot of the player was touches the line. Then the player extends his one foot back side and reaches the maximum length on the perpendicular line with the torso straight.

Scoring
The distance between the heel of the front foot and big thumb of the rear foot was recorded as score. And the leg length was measured and deducted from the measured score. Three chances were given to all the players and the best one was recorded as final score.

TARGET ANKLE HOLD

Purpose
The purpose of the test was to measure the ability of catching ankle of the kabaddi player.

Facilities Required
Half Kabaddi court and score sheet

Equipment
Measuring tape, score sheet.

Marking
The lay out half Kabaddi court was marked.

Procedure
Player was asked to stand in the defensive zone. And the five offensive players were standing offensive zone which beyond the centre line. The offensive players were wear different colour uniform such as green, white, blue, yellow and red. When the investigator says the colour of the uniform the particular offensive player asked to come and stand on the bulk line on one foot and the other foot was raised up to one feet height from the floor. Immediately after raising, the defensive player catches the ankle of the offensive player. The investigator call all the offensive players frequently each player at twice time.

Scoring
One point was awarded per correct ankle catch. The correct ankle catch means to hold the ankle with single touch and immediately after the offensive player raise his ankle.
Development of Norms

A norm is a scale that permits conversion from a raw score to a score capable of comparisons and interpretations. It is obvious that if a test is accompanied by norms, its usefulness is enhanced. Its characteristics of average and range are known. The test accompanied by norms has several advantages over tests without norms. Norms enable one to interpret player’s scores in relation to a large group in the same population. Their use enables a comparison of performance of a player with other players, and gives uniform meaning to the comparison of a player’s score on one test with his score on another. In addition, norms provide a reliable and useful basis for interpretation and evaluation of test results.

One of the most commonly used methods of describing relative status of the performance is the percentile rank (Field, 2005). Percentile norms have been developed for several popular tests in physical education. It is impossible to know how well one has done on a test unless his score is shown in relation to others taking or having taken the same test. Norms using percentiles are widely applicable, appropriate for many situations, and easy to interpret by players as well the coaches and trainers. A percentile score norm indicates a player’s relative position in a group and informs the player of the percentage of players who score below his score. Since, there is a lack of standardized evaluative criteria in Kabaddi for assessing the ability, grading and predicting the performance of Kabaddi players, an effort was undertaken to construct norms for skill test battery for Kabaddi players were presented in table - I.

Table – I: Percentile Norms for the Skill Test Items

<table>
<thead>
<tr>
<th>Test Items</th>
<th>Percentiles</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10</td>
</tr>
<tr>
<td>Side target kick</td>
<td>3.91</td>
</tr>
<tr>
<td>On the spot bonus</td>
<td>36.00</td>
</tr>
<tr>
<td>Leg thrust reach ability</td>
<td>1.14</td>
</tr>
<tr>
<td>Target Ankle Hold</td>
<td>15.00</td>
</tr>
</tbody>
</table>

Development of Grading Scale for Interpreting Playing Ability

All the individual performance of the skill test was converted as composite score. Based on the norms found in table - I a 6-sigma scale, i.e. 3 standard deviations above the mean and 3 standard deviations below the mean was developed (Clarke, 1970) to calculate the playing ability scores which were given in table - II.

Table – II: 6 - Sigma Scale for Playing Ability Scores

<table>
<thead>
<tr>
<th>6-Sigma Scale</th>
<th>Playing Ability Performance Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 σ</td>
<td>165.39</td>
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</table>

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Finally from the norms a grading scale was developed to interpret the playing ability of the players which was presented in table - III.

<table>
<thead>
<tr>
<th>Scores</th>
<th>Alphabetical Grade</th>
<th>Interpretive Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above 165.39</td>
<td>A</td>
<td>Excellent</td>
</tr>
<tr>
<td>134.96 to 165.38</td>
<td>B</td>
<td>Good</td>
</tr>
<tr>
<td>104.53 to 134.95</td>
<td>C</td>
<td>Average</td>
</tr>
<tr>
<td>74.11 to 104.52</td>
<td>D</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>Below 74.10</td>
<td>E</td>
<td>Poor</td>
</tr>
</tbody>
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References: