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## Construction of norms for selected game related physical fitness variables of Kho-Kho players

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### Abstract

The purpose of the study was to construct norms for male Kho-Kho players on selected physical fitness variables. The subjects were under 14 year kho-kho boys selected from the schools of Erode District. The variables selected for the study were speed and agility which are the most important factors needed for the Kho-Kho players. The test items selected were 30 mts dash and shuttle run accordingly. Percentile scale was used to construct the norms on selected Physical fitness variables.

**Keywords:** Kho-Kho players, physical fitness variables, Tamil Nadu

### Introduction

Kho-Kho is the famous indigenous game which is played in all the states of Tamil Nadu. Fitness variables such as speed and agility are very important for kho-kho players because nature of the game requires running for escaping from the opponents as well as changing the opponents. Many critics have described kho-kho as a game of speed. The importance of the speed, may it be a collective speed of the team or an individual speed is rightly highlighted. Agility is the sudden change of direction which is needed in order to shake off the opponents as well as to escape.

There were no specific norms for the game related fitness variables of kho-kho players. This motivated the investigator to conduct the study to construct the norms for school Kho-Kho players.

### Statement of the Problem

The purpose of this study was to construct the norms for selected game related physical fitness variables for under 14 year kho-kho boys.

### Delimitations

- The study was delimited to purposively 500 kho-kho boys (under 14 years)
- The study was delimited to selected Game Related Fitness variables were Speed and Agility

### Significance of the Study

1. This study may help to select the talented Kho-Kho players for the school teams.
2. This study may help the coaches to judge the teams.
3. This study may help to construct the training program.
4. This study may motivate further research study on norm construction related variables.

### Review of literature

Mahendrasinh K Mandora (2016) <sup>[4]</sup> conducted a study on Construction of Physical Fitness Norms for College Students of Gujarat State. The purpose of the study was to construct physical fitness norms for college students of Gujarat state. For this study different colleges of Gujarat state were selected and only male college students are selected, 250 from each group i.e. 18-19, 20-21, 22-23, and 24-25 years are selected. For the purpose of study the variable selected was Explosive leg strength.

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Discriptive Statistics will be used. To construct physical fitness norms for college students of Gujarat State, Percentile scale and Hull Scale will be used. To compare physical fitness variables among the students of four different age groups of college students of Gujarat State, Analysis of Variance (ANOVA) will be used at 0.05 level of significance. It can be seen that in the age group of 18 to 19 years the highest performance of the students is 55, which comes in the frequency 268 to 278. In the age group of 20-21 years the highest performance of the students is 66, which comes in the frequency 97 to 109, and lowest performance is 0, which comes in the frequency 266 to 278. In the age group of 24 to 25 years the highest performance of the students is 69, which comes in the frequency 97 to 109, and lowest performance is 0, which comes in the frequency 266 to 278. So, the researcher concluded that the performance of the student is best in the frequency 97 to 109, which is 265, and the lowest performance is 2 which come in the frequency 266 to 278.

**Methodology**

To achieve the purpose, kho-kho boys from erode district were selected as subject for this study. The age group of the subject was between 11 to 14 years. The scholar in this study selected certain game related physical fitness variables for the selection of the students for the school team. The selected variables were speed and agility. Administration of test and method of collection of data are explained here

**Speed (30 meters Dash)**

**Purpose**

The purpose of the test is to measure the speed of the subjects.

**Equipment**

An area on track with a starting line and finishing line with a distance of 30 meters, two stop watches.

**Procedure**

After a short warm-up period, the subjects were taken a position behind the starting line. Best results were obtained when two subjects run at the same time for competition. The starter used the command. "On your marks" and go along with a clapper and a signal to the timer by a down ward sweep of the arms. The students run across the finish line. Only one trail is permitted.

**Scoring**

The score is the elapsed time to the nearest one tenth of a second.

**Agility (Shuttle Run)**

**Purpose**

The purpose of this test was to measure agility.

**Equipment**

Floor, stopwatch, whistle, score sheet, measuring tape, chunnum powder.

**Administration**

Two parallel lines were drawn the floor 10 meter apart. The subjects were instructed to start from behind the other line. To start the shuttle run a whistle was blown and the subject ran to the other line and touched with hand. Then the subject ran back again and touch the staring line. Subjects were asked to repeat it for 6 times.

**Scoring**

The best of the two trails were recorded as the scores in seconds.

**3.3 Statistical Analysis**

The data collected by administering tests was statistically treated to form norms for under 14 year kho-kho boys. In order to construct the norms on the selected variables, Hull Scale was used. To analysis the data, mean and standard deviation were used.

**4. Analysis of data and results of the study**

The calculated mean and standard deviation of 30 mts dash performance were 4.7419 and 0.08537 respectively. The percentile scale was constructed for 30 Meters Run performance for 14 year boys has presented in Table 1.

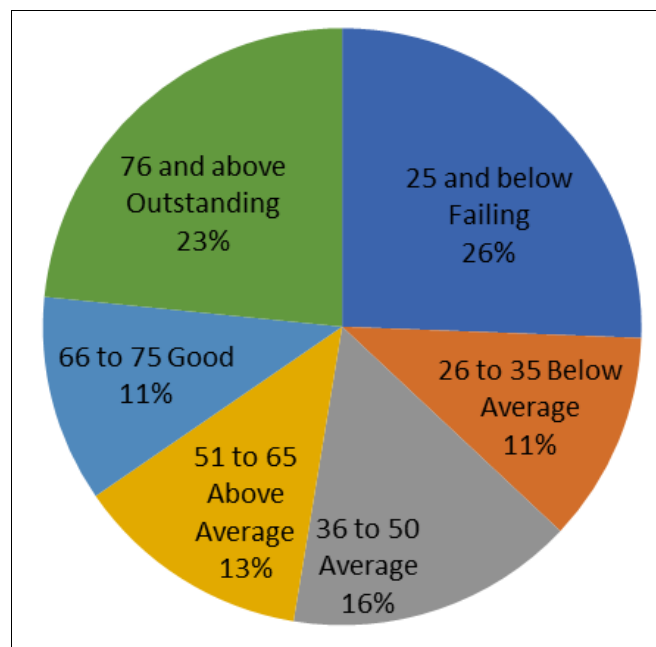
**Table 1:** Shows 30 Meters Run performance for 14 year boys

| Percentile | 10   | 20   | 25   | 30   | 40   | 50   | 60   | 70   | 75   | 80   | 90   |
|------------|------|------|------|------|------|------|------|------|------|------|------|
|            | 4.89 | 4.83 | 4.80 | 4.78 | 4.74 | 4.71 | 4.69 | 4.68 | 4.68 | 4.67 | 4.65 |

On the basis of the above constructed table the subjects were given qualitative grading as shown in Table 2.

**Table 2:** Shows qualitative grading

| Score        | Qualitative Grading | Number of Subject in Each Case |
|--------------|---------------------|--------------------------------|
| 25 and below | Failing             | 126                            |
| 26 to 35     | Below Average       | 54                             |
| 36 to 50     | Average             | 81                             |
| 51 to 65     | Above Average       | 70                             |
| 66 to 75     | Good                | 50                             |
| 76 and above | Outstanding         | 119                            |



**Fig 1:** The performance of 30 meters dash (speed) for under 14 Kho-Kho boys

The calculated mean and standard deviation of Shuttle run performance were 16.7589 and 0.10223 respectively. The percentile scale was constructed for Shuttle Run (agility) performance for under 14 year kho-kho boys has presented in Table 3.

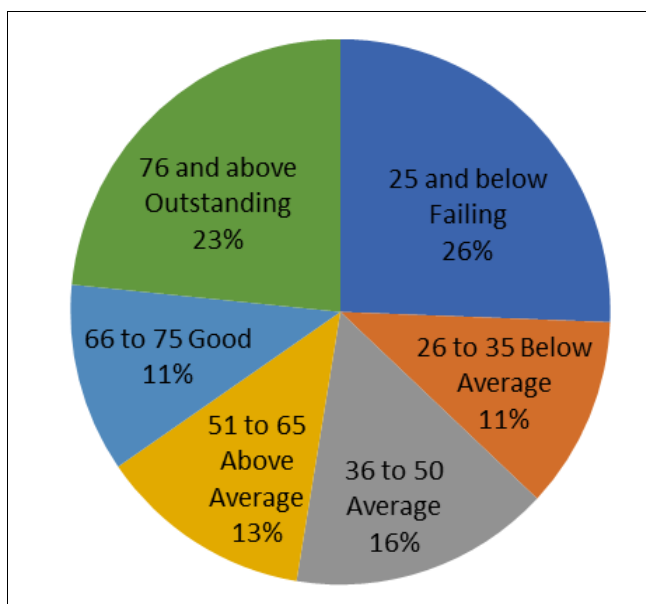
**Table 3:** Shows the Shuttle Run (agility) performance for under 14 year kho-kho boys.

| Percentile | 10    | 20    | 25    | 30    | 40    | 50    | 60    | 70    | 75    | 80    | 90    |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|            | 16.90 | 16.87 | 16.85 | 16.83 | 16.79 | 16.74 | 16.73 | 16.69 | 16.68 | 16.65 | 16.62 |

On the basis of the above constructed table the subjects were given qualitative grading as shown in Table 4.

**Table 4:** Shows qualitative grading

| Score        | Qualitative Grading | Number of Subject in Each Case |
|--------------|---------------------|--------------------------------|
| 25 and below | Failing             | 128                            |
| 26 to 35     | Below Average       | 57                             |
| 36 to 50     | Average             | 78                             |
| 51 to 65     | Above Average       | 64                             |
| 66 to 75     | Good                | 56                             |
| 76 and above | Outstanding         | 117                            |



**Fig 2:** The performance of shuttle run (agility) for under 14 Kho-Kho boys

**Conclusion**

On the basis of the percentile norms in the performance of 30 mts dash and shuttle run for under 14 year kho-kho Boys.

1. As per qualitative grading it was found that out of 500 subjects in 30 meters dash 126 subjects (25.2%) were in the failed category, 54 subjects (10.8%) were in the below average category, 81 subjects (16.2%) were in the average category, 70 subjects (14%) were in the above average, 50 subjects (10%) were in the good category and 119 subjects (23.8%) were in the outstanding category.
2. In 6x10m Shuttle run test, 128 subjects (25.6%) were in the failed category, 57 subjects (11.4%) were in the below average category, 78 subjects (15.6%) were in the average category, 64 subjects (12.8%) were in the above average, 56 subjects (11.2%) were in the good category and 117 subjects (23.4%) were in the outstanding category.

**Recommendation**

1. A similar study may be conducted to construct norms for the different age level boys and girls at school college level.
2. A similar study may be conducted to construct norms for Physiological, Psychological and remaining related physical fitness of Kho-Kho players.

3. A similar study may be conducted to construct norms for the performance variables of different major games.

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