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## Creation of chain skill test for playing ability from Madhya Pradesh kho-kho players

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### Abstract

The purpose of the study was to Construction of Chain Skill Test for Playing ability from the various district of Madhya Pradesh. The study was delimited. The following selected Specific skills test for Chain in Kho- Kho. The study was further delimited to randomly selected twenty male Kho-Kho players from different district of Madhya Pradesh. The study was delimited to the age range of the subject between 19-30 years. Establishing the instrument reliability and tester's competency ensured the reliability of the data. The Test-Retest method was used to assess the reliability of the constructed Chain test, the obtain score were correlated and values. Statistical Procedure: The validity of each particular skill will be determined by using product moment correlation as the determining factor. To determine the reliability and objectivity of various test correlation coefficient was used. There was significant relationship between test-retest scores of the Chain Test constructed skill tests when it was second time conducted by the same tester. Thus, it was concluded that the constructed skill test has significant correlation and have good reliability. There was significant relationship between test-retest scores of the Chain Test constructed skill tests when it was second time conducted a different tester. Thus, it was concluded that the constructed skills tests have significant correlation and have good objectivity.

**Keywords:** Construction, chain, playing ability, Kho-Kho etc

### Introduction

The major game of Kho-Kho is considered to be traditional in India, and it is played all over the country, particularly in rural areas. Playing Kho-Kho requires very little space and almost no equipment because it can be played anywhere. Any surface which can be used for running and which cannot prone to abrasion like injuries is appropriate for playing this game. As it stands now, the game is played on surfaces that have been prepared from dirt or even on turf. It goes without saying that playing on artificial ground and indoor are now a days is a good option. The player in this game is required to make a decision as rapidly as possible. Young people who are slender and agile and having a good endurance are considered suitable for playing this activity, and the spectators get the thrill of seeing exciting sports to their satisfaction.

### Kho-Kho

Only nine people from each team are allowed to enter the playing field during a game of Kho-Kho, which is a form of tag played by teams of twelve players who aim to avoid being touched by members of the opposing team.

### A Solitary Chain

This is a crucial part of any defensive strategy. When one of the previous chasers receives a "kho" and engraves a chain-like pattern, this is referred to as "single chain," and it triggers the entry of a defender from the back of the subsequent chaser. This requires constant movement, yet it is a common tactic used in defensive situations. The defence maintains a strategic distance from the attacker while simultaneously accelerating along a predetermined path.

### Method and procedure

The technique that followed for the selection of the subject, the development of the specific skills test, the collection of the data, and the method that used for statistical analysis are

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described in this chapter. Twenty male Kho-Kho players from different district of Madhya Pradesh, the subject was randomly selected to serve as subjects for this study for subjective and objective analysis. The age of subject's range will be between 19 to 30 years.

### Criterion Measure

The Criterion measure was the average of the playing ability scores of Kho-Kho players assigned independently by three Kho-Kho experts. The detailed guidelines worked out for the Kho-Kho expert.

### Reliability of Data

Establishing the instrument reliability and tester's competency ensured the reliability of the data.

### Reliability of the Tests

The Test-Retest method was used to assess the reliability of the constructed Chain test, the obtained scores were correlated and values are presented in Table- 1.

**Table 1:** Reliability of the Tests

Test items	Reliability	Significant of Correlation
Chain Test I	.936	.000
Chain Test II	.902	.000

### Objectivity of the Tests

The Test score was correlated with the score obtained through the test administered by another tester to assess the Objectivity of the constructed Chain test values are presented in Table-2.

**Table 2:** Objectivity of the Tests

Test items	Objectivity	Significant of Correlation
Chain Test I	.882	.000
Chain Test II	.815	.000

### Construction of Specific Skill Test

The researcher will construct specific skill test to subjectively and objectively evaluate the Chain skills of KhoKho.

### Chain Test I

**Purpose:** To measure the chain skill of the subjects

**Facilities and Equipment's:** Kho-Kho Court, Stopwatches at least two stopwatches, Cone, Whistle, Measuring tape, line powder.

**Administration:** The subject will stand back from the N pole side; rest of the subjects will stand at the back of Lobby from N pole side. In all eight chasers box put cone in the chaser box, on the whistle, subject starts to run in zigzag way in single chain and subject turn his neck slightly back side and see cone and subject start run in N pole side to S pole and the subject finish other side of N pole. The stopwatch will start when Subject starts to run in zigzag way and finish the run from N side of pole, that time stopwatch stops.

**Marking:** The distance between Kho-Kho pole to first chaser box is 2.55m. and the distance between two adjacent chasers block 2.30m. or square 35\*30 centimeter and the dimensions of the free zone were 1.50\*16 m.

**Scoring:** The score for each trial is the time required to legally complete the course. Three trials are given, first right side then left side and the average of six trial three right side and three left side was considered as the score of an individual subjects.

### Chain Test II

**Purpose:** To measure the chain skill of the subjects

**Facilities and Equipment's:** Kho-Kho Court, Stopwatches at least two stopwatches, Cone, Whistle, Measuring tape, line powder.

**Administration:** The subject will stand back of the N pole side; rest of the Subjects will stand at the back of Lobby from N pole side. In all eight chasers box put cone in the chaser box, on the whistle subject start run in zigzag way in 3:3:2 (Double chain) and subject turn his neck slightly back side and see cone and subject start run in N pole side to S pole and the subject finish other side of N pole. The stopwatch starts when Subject start to run in zigzag way and finish the run from N side of pole that time stopwatch stops.

**Marking:** The distance between Kho-Kho pole to first chaser box is 2.55m. and the distance between two adjacent chasers blocks 2.30m. or square 35\*30 centimeter. And the dimensions of the free zone were 1.50\*16m.

**Scoring:** The score for each trial is the time required to legally complete the course. Three trials are given, first right side then left side and the average of six trial three right side and three left side is considered as the score of an individual subjects.

### Statistical Procedure

The validity of each particular skill will be determined by using Descriptive Statistics, product moment correlation as the determining factor. To determine the reliability and objectivity of various test correlation coefficient was used.

### Findings

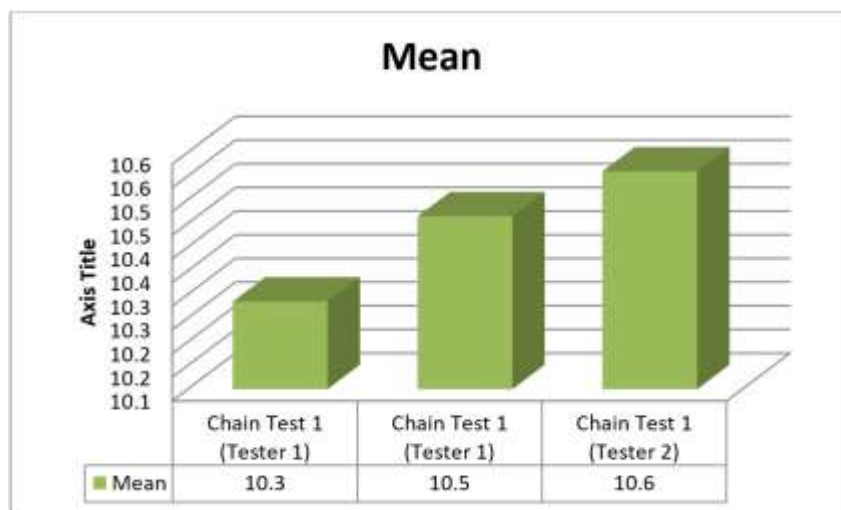
The basic criteria for construction of a test to be used in measuring achievement are (1) validity, (2) reliability, (3) objectivity, and (4) norms. Barrow and McGee (1971) have made the statement, "If a test is accompanied by norms, its usefulness is enhanced."

### Chain Test - 1

**Table 3:** Descriptive Statistics of Chain Test – 1

Test	Mean	Std. Deviation	N
Chain Test 1 (Tester 1)	10.2850	.65476	20
Chain Test 1 (Tester 1)	10.4650	.68077	20
Chain Test 1 (Tester 2)	10.5600	.61422	20

From Table 3, the mean for the constructed Chain test -1 (Tester 1) is 10.2850 with standard deviation  $\pm 0.65476$ , Chain test 1 (Tester 1) mean is 10.4650 with standard deviation  $\pm 0.68077$ , and Chain test 1 (Tester 2) mean is 10.5600 with standard deviation  $\pm 0.61422$ , with N value 20 for each. The value of correlations is given in Table 4.



**Fig 1:** Graphical Representation of mean of Chain Skill Test 1 for Playing ability for Madhya Pradesh Kho Kho Players

**Table 4:** Correlations Value for Reliability and Objectivity of Chain Test – 1

Pearson Correlation	Chain Test - 1 (Tester 1 Vs Tester 1) Reliability	Chain Test - 1 (Tester 1 Vs Tester 2) Objectivity
Chain Test 1	0.936**	0.882**
N	20	20

\*\* Correlation is Significant at the 0.01level (2-tailed) with df 38 = 0.393

\*Correlation is significant at 0.05 level (2 tailed) with df 38 = 0.304

The results presented in Table - 4 proved that the obtained “r” ‘value between test and retest for reliability of Chain test 1 is 0.936. The “r” ‘value of test and retest for objectivity of Chain test 1 is0.882. The obtained “r” ‘values are greater than the required value at 0.01 levels, i.e., 0.393.

Hence, it is found that the reliability and objectivity of the tests constructed are significant at alpha level of 0.01. Thus, the consistency of the subjects in performing each skill test

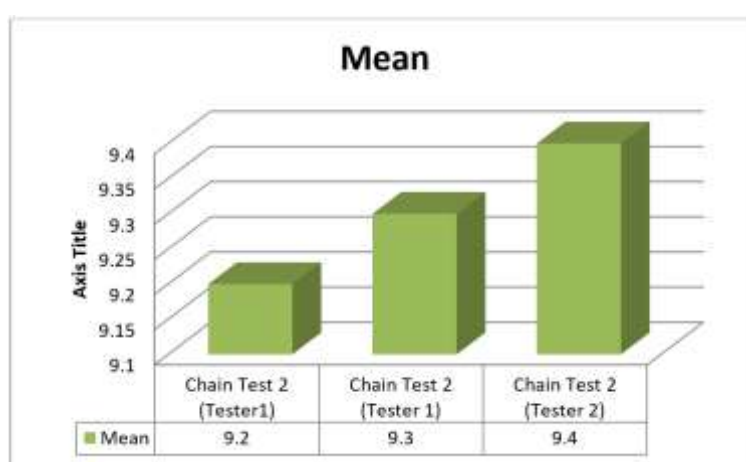
which is evident from the values of coefficient of correlation of test and retest (intra class) is proved.

**Chain Test – 2**

**Table 5:** Descriptive Statistics of Chain Test – 2

Test	Mean	Std. Deviation	N
Chain Test 2 (Tester1)	9.2000	0.48666	20
Chain Test 2 (Tester 1)	9.3300	0.45434	20
Chain Test 2 (Tester 2)	9.4050	0.38997	20

From Table -5, the mean for the constructed Chain test 2 (Tester1) is 9.20 with standard deviation ±0.48666, Chain test 2 (Tester 1) mean is 9.33 with standard deviation ± 0.45434, and Chain test 2 (Tester 2)mean is 9.4050 with standard deviation ± 0.38997, with N value 20 for each. The value of correlations is given in Table 6.



**Fig 2:** Graphical Representation of mean of Chain Skill Test 2 for playing ability for Madhya Pradesh Kho-Kho Players

**Table 6:** Correlations Value for Reliability and Objectivity of Chain Test – 2

Pearson Correlation	Chain Test - 2 (Tester 1 Vs Tester 1) Reliability	Chain Test - 2 (Tester 1 Vs Tester 2) Objectivity
Chain Test 2	0.902**	0.815**
N	20	20

\*\* Correlation is Significant at the 0.01level (2-tailed) with df 38 = 0.393

\*Correlation is significant at 0.05 level (2 tailed) with df 38 = 0.304

The results presented in Table 6 proved that the obtained “r” ‘value between test and retest for reliability of chain test 2 is 0.902. The “r” ‘value of test and retest for objectivity of Chain test 2 is0.815.The obtained “r” ‘values are greater than the required value at 0.01 levels, i.e., 0.393

Hence, it is found that the reliability and objectivity of the tests constructed are significant at alpha level of 0.01. Thus, the consistency of the subjects in performing each skill test which is evident from the values of coefficient of correlation

of test and retest (intra class) is proved.

### Discussion of Findings

This is probably due to the different nature of the training components and pre-requisite for players. These results may be due to a small sample of size and other factors such as different types of body, differences in body composition, etc and some reason may be the Supporting the sports faculties, follow the rules and regulations, Extra work out. Regular activities involved, supporting the parents, right direction of the workout proper diet chart, follow rules regulation, There may be other reason besides this.

### Conclusions

Within the limitations and delimitations of this study, the following conclusions were drawn.

- There was significant relationship between test-retest scores of the Chain constructed skill tests when it was second time conducted by the same tester. Thus, it was concluded that the constructed skill test has significant correlation and have good reliability.
- There was significant relationship between test-retest scores of the Chain constructed skill tests when it was second time conducted a different tester. Thus, it was concluded that the constructed skills tests have significant correlation and have good objectivity.

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