



International Journal of Physical Education, Sports and Health

P-ISSN: 2394-1685
E-ISSN: 2394-1693
Impact Factor (ISRA): 4.69
IJPESH 2015; 2(1): 177-179
© 2015 IJPESH
www.kheljournal.com
Received: 15-07-2015
Accepted: 18-08-2015

Rinku Tiwari
Physical Education Prof.
(Research scholar) Pt RSU.
Raipur, CG, India.

Dr. Reeta Venugopal
Prof., Physical Education
Director, Center for Women's
Studies, India.

Correspondence:
Rinku Tiwari
Physical Education Prof.
(Research scholar) Pt RSU.
Raipur, CG, India.

Reaction ability test for female Kho-Kho players

Rinku Tiwari, Reeta Venugopal

Abstract

Objective: The purpose of the present study was to develop *Reaction ability* test for female Kho-Kho players.

Method: 60 female Kho-Kho players who participated in National level tournament from different colleges were selected as subjects for the present study. The age of the subjects ranged from 18 to 25 year. The reaction ability of the players were measured in terms of minimum time taken to complete the test. The Playing ability was assessed with a panel of three experts, who were technically qualified for the Kho-Kho game. The expert assessed the players on 10 points. The analysis of data was done with help of SPSS. Level of significance chosen was at 0.05 level.

Result: Correlation coefficient between playing ability and Reaction ability test was found to be 0.90, reliability was found to be 0.91.

Conclusion: It was concluded that the test constructed to assess reaction ability is valid and reliable for Female Kho-Kho players.

Keywords: Reaction ability, Reliability, Validity, objectivity

1. Introduction

For optimal performance fitness is important factor for all the sports; but the efficient sports specific physical ability is a determining factor that matters when quality of a player is assessed. Assessment of players in a particular sport for various purposes requires sport specific test, with some element of fitness with skill or technique. Construction of sports specific fitness test to determine the levels of players are very important. Testing is also important to improve training by developing specific drills, and improving sports specific movements of the players.

Kho-Kho in India was first started in the state of Maharashtra. The game has been very popular in rural and urban India. The Deccan Gymkhana club of Poona tried to formalize the game. The first edition of the rules, of Kho-Kho was published in 1935, by the newly founded Akhil Maharashtra Shareerika Shikshan Mandal. The game of Kho-Kho is simple, inexpensive and enjoyable. It is a game which demands higher level of physical fitness, specifically coordinative abilities, endurance and speed along with mental alertness).

www.traditionalgames.in/home/outdoor-games/kho-kho.

Sports specific skill test have been developed for various games like Handball (Singh and Kumar 2008 [6], Yadav and Dudhale 2012) [10], Basketball (Mohaimin and Kishore 2014) [5], Field Hockey (Kumar and Malhotra, 2015) [3], Ball-badminton (Kumar and Kalidasan 2013) [2], Taekwondo (Singh and Kaur 2014) [7] and Wrestling (Khodadad and Tojari 2014) [1]. Test for evaluation of selected physical fitness variables of Kabaddi, Kho-Kho & Wrestling players were also developed by researcher Singh and Singh (2013). Reaction ability test for Kabaddi, has been developed by Rao and Kishore (2014). Construction and standardization of a battery of Kho-Kho skill test for school level students have been developed by Waghchoure and Bera (2000) [9].

There are standard skill tests in various sports to measure the playing ability of the players but very few test, that too for selected population are available in Kho-Kho, hence this study was undertaken to construct specific test in Kho-Kho for female players.

2. Methodology

Sample: 60 female Kho-Kho players who participated in National level tournament of different colleges were selected as subjects for the present study. The age of the subjects ranged From 18 to 25 year. The reaction ability of the players was measured in terms of minimum time taken to complete the test.

Reaction Ability skill Test: Test administration.

Objective

Objective of the study was to develop test for reaction ability for female Kho-Kho players.

Tools: Stop watch, Measuring tap, Lime, Whistle.

Ground: 10 meter circle in field (ground).

Administration Process

A circle of 10 meter was drawn and was divided in to two halves from the centre. Lower part of the circle was again divided in to 5 equal parts from the centre point, namely A, B, C, D, E. Cones of different colors were placed in the apex point of the circle.

Tester call out for the color and the subject has to run to that particular cone and come back to the starting position. The same is repeated for all the five colors.

Measurement: Time taken to complete the test in seconds was recorded.

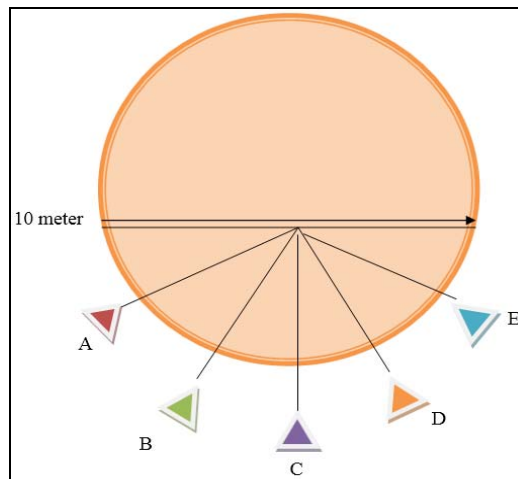


Fig 1: Drawing Showing Ground Position

Playing Ability: It was assessed with a panel of three experts, who were technically qualified for the Kho-Kho game. The expert assessed the players on 10 points.

Statistical analysis technique: The analysis of data was done with help of SPSS. To analyze the collected data descriptive and Correlation statistics (Pearson product moment Correlation) were implied. Reliability were established by test retest method using Correlation Co-efficient, the score of first test was correlated with the score of second test.

Table 1: Descriptive Statistics mean ±SE, SD of Reaction Ability Test (seconds) and Playing Ability (number)

SN	Item	Mean	S.D.	Max. value	Min. value	Range	r
01	Reaction ability	19.21±.17	1.39	24.13	16.4	7.68	.90
02	Playing ability	6.4±.13	1.05	8.9	4.7	4.2	
N=60							

Description: From table No. 01, it is observed that the mean score of Reaction ability test of female kho-kho players is 19.21 ±.17 seconds. The maximum score recorded was 24.13 seconds & minimum timing recorded was 16.4 seconds. The Range of score was 7.68 seconds. In case of playing ability judged by three judges out of 10 marks the mean value found was 6.4±.13, maximum and minimum values noted were 8.9 & 4.7 respectively. The range of scores of playing ability was 4.2.

Table 2: Validity of Reaction Ability Test: Correlation between of Reaction Ability Test & Playing Ability

Description:▼	Item	Correlation	N
Validity	Reaction & Playing	0.90	60

Description: Table no. 02 showing the score of Reaction ability test was correlated with playing ability score obtained by three judges out of 10 marks, it was found that the score of Reaction ability significantly correlated with playing ability, the correlation coefficient noted was 0.90 which indicate that the test is valid to measure reaction ability test for female kho-kho players as it is highly correlated with playing ability.

Table 3: Reliability: Correlation between Two Tests (Test- Retest Method)

Description:▼	Item	Correlation	N
Reliability	Reaction ability Test (RAT)	0.91	60

Description: Table no. 03 shows correlation between test 1 & test II scores. When the score of test 1 & test II were analyzed for correlation it was found that the two test exhibited high correlation coefficient the value being 0.91. This establishes that the test is reliable and can be used to measure Reaction Ability of female kho-kho players.

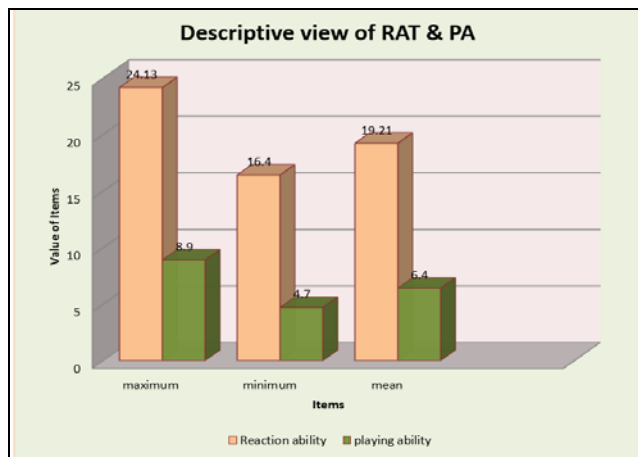


Fig 2: (Ref. Table no. 01) Fig. showing maximum value, minimum value & mean of RAT & PA

Table 4: Objectivity of playing ability: Correlation between scores of 3 judges on playing ability of female kho-kho players.

Description ↓	Item	Correlation	N
Objectivity 01	A&B	0.92	2
02	A&C	0.87	2
03	B&C	0.89	2

Description: Table No. 04 shows objectivity of Playing Ability. The scores obtained by three judges on playing ability were analyzed for correlation among the scores, and it was found that the correlation coefficient were. 92, 87, & 89 between judge 1 & 2, judge 1& 3& judge 2and 3respectively. This indicates that the assessment of Playing Ability was very accurate & proper.

3. Conclusion

On the basis of result of the present study it is concluded that the test of reaction ability is valid, reliable and objective to assess reaction ability of female kho-kho players and hence can be used to assess kho-kho players for various purposes.

4. References

1. Khodadad Kasha, Sholeh, Tojari Farshad. The construction and validation of a test of wrestling skill, Journal of Applied science and agriculture. 2014; 9(4):1956-1962.
2. Kumar P Raj, Kalidasan R, Construction and development skill test in service among ball badminton players, Rajkumar, *et al.*, Star phy. Edn 2013; 1(2):5-8.
3. Kumar Shailesh, Mehrotra Akhil. Construction of skill based test item for measuring flick ability field hockey, Academic Sports Scholar 2015; 4(3):1-4.
4. Mohaimin Abdul, kishore Y. construction of passing ability test for Basketball, International journal of multidisciplinary research and development. 1(7):94-96.
5. Rao Sheshagiri KV, kishore Y, Construction of Reaction ability test for kabaddi, The International Journal of humanities & social studies. 2014; 2(6):95-98.
6. Singh J, kumar R. Specific Skill Profile of male handball players, Journal of Exercise Science & physiotherapy 2008; 4(2):129-132.
7. Singh Kumar, Pradip Kaur, Harmpreet, Constructions of skill test for kicks in Taekwondo, International educational E- journal, qurt. 2014; 3(3):37-41.
8. Singh Raspal, Hoshiyar Singh. An evaluation of selected physical fitness variables of kabaddi, kho-kho& wrestling players from Haryana and Punjab, India, Research journal of physical education sciences.1(2):1-4.
9. Waghchoure MT, Bera TK. Construction and standardization of Kho-Kho skill test battery for the players of 11-14 age group, (Book of Abstracts: Pre-Olympic Congress, Brisben, Australia: International Congress on Sport Science, Sport Medicine, and Physical Education), 2000.
10. Yadav SK, Dudhale Sunil. Construction of diving shot test in handball, International journal of health, sports and physical education. 2012; 1(1):23-24.
11. WWW User Survey. (n.d), Kho-kho, Indian traditional games. Retrieved from www.traditionalgames.in/home/outdoor-games/kho-kho.