

Performance of University Level Kho-Kho Players In Relation To Reaction Time

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Abstract – Indian culture is the oldest culture in this world. It has gifted many things to this world. Literature, arts, sports, philosophy, scientific theories and social, political and economical thoughts spread in the world are originated from Indian culture. The game Kho Kho had its origin in Maharashtra state and slowly spread throughout the length and breadth of India and subsequently to the neighboring countries, Nepal, Bangladesh, Srilanka and Pakistan.

The purpose of the present research was to study the relationship between the performances of University level Men Kho-Kho players in relation to selected cognitive variables. In order to achieve the purpose of the study, subject's performance was estimated with the help of a rating scale; the status of subjects in the selected cognitive variables reaction time was measured with the help of Electronic Chronoscope. A total of 180 subjects belonging to 16 Universities of South-India were selected in such a way that 60 subjects each belonged to Dodgers, chasers and All-rounders (customer of classification of Kho-Kho players) category. Statistical techniques used: Descriptive statistics, ANOVA, Correlation and Multiple regression analysis were used. Result: There exists significant mean difference in the score of the simple reaction time : sound among dodgers, chasers and all-rounders with chasers having better simple reaction time : sound score than dodgers and all-rounder; significant mean difference in the score of the discrimination reaction time-light among dodgers, chasers and all-rounders with chasers having better discrimination reaction time-light score than dodgers and all-rounders; and significant mean difference in the score of performance among dodgers, chasers and all-rounders with chasers having better performance score than dodgers and all-rounder.

INTRODUCTION

Today almost every nation in the world attaches great significance to the development of sports in order to improve the nation's health and for the well being of the future generations. Certain nations like USA and Russia even try to project the superiority of their political ideology and social systems through the field of sports. India still considered as one of the developing countries, is also trying to attain such a level of performance in sports and to some extent succeeded in achieving the best performance in such games as cricket, Hockey, Kabaddi, Badminton, Kho Kho etc. Particularly in Kho Kho, India has earned a unique name at international competitions by consistently winning the Asian championships' and SAF Championship'.

"Schollarnder was of the view that it was not physical, physiological, and environmental and (Schollarnder2003) economic factors alone that influence sports performance, psychological factors were also playing dominant role. There are many factors, such as physique, body constitution,

technique, tactics, level of motor and physical abilities, psychological abilities, personality make up of a sportsmen etc., which influence sports performance at National and International events. Sports psychology has emerged as an important field to enhance one's performance during competition. The role of psychology in attaining high performance goes on increasing and becoming greater as the level of competition goes on becoming higher¹

'Till recently Kho Kho game was confined to certain pockets in India. Now it has crossed the boundaries of India and has become an International event. Any nation which desires to acquit well in this game is required to cater to all facets of preparation of players namely physical, social emotional and cognitive while the first two facets are usually taken care of the cognitive aspects are not given due consideration. Therefore the researcher has ventured to take up the present study'.

Delimitations

- The study was delimited to 160 male Kho Kho players from three different categories.
- The study was delimited to male Kho Kho players of south zone states namely Karnataka, Tamilnadu, Kerala, Andhra Pradesh and Pondicherry.
- The study was further delimited to Reaction time only

Limitations

- The reaction time variables were measured by administering the field test protocol. The difference in the value obtained in comparison with laboratory method was considered as limitation of the study.
- The performance of the players will be provided by the experts through subjective rating which is considered as one of the limitation.

Hypothesis

- Chasers, dodgers and all-rounder do not differ significantly in their performance.

PROCEDURE OF TESTS: REACTION TIME

Series I visual stimuli: With the above arrangements, instructs the ‘S’ thus: I am interested in measuring the speed with which you can react to the appearances of light. (P. Nataraj, 2002) the light will always appear in the same place (demonstrate it to the ‘S’) When I say ready place your index finger on the telegraphic key. As soon as you see the light withdraws your finger from the key, but do not withdraw your finger before you see the light. Do not keep your finger on the key again until I say keep. With the above instruction say ready and press the key connected with the light. After the ‘S’ responds, release your (E) hand and say keep. Then note down the readings of chronoscope thus present 10 trials to the ‘S’.

Series II Sound Stimuli: Instruct the S to keep pressing the key connected with sound at the signal ready and to release it on hearing the buzzer sound. Thus present 10 trials following the same procedure and note down the readings after each trial.

Series: discrimination RT for 10 auditory stimuli and 10 visual stimuli, mix up 20 auditory and visual stimuli in order. Keep your right hand on right side key (sound key) and left hand on left side key (light key). With the signal ready, I will present either light

or sound in an irregular order. You have to respond only to sound by releasing the right hand key and should not respond to light. When you release your hand, do not keep it again, on the key until you are asked to keep. With the above instructions, say ready and present the stimulus according to the schedule prepared. After releasing your (E) hand as the S to keep. Then note down the time taken to respond to sound only and not to light, follow the same procedure throughout².

REACTION TIME AND PERFORMANCE

Table 1: Correlation between Reaction Time and Performance of Kho-Kho Players

Variable	Statistics	Performance
Reaction Time and performance		
Simple Reaction Time Sound	Pearson correlation	-.197**
	Sig. (2-Tailed)	0.006
	N	180
Simple Reaction Time : Light	Pearson correlation	-0.163**
	Sig. (2-Tailed)	0.024
	N	180
Simple Reaction Time : Sound	Pearson correlation	-.093
	Sig. (2-Tailed)	0.202
	N	180
Simple Reaction Time : Light	Pearson correlation	-.126
	Sig. (2-Tailed)	.081
	N	180

** correlation is significant at the 0.01 level (2-tailed)
 * correlation is significant at the 0.05 level (2-tailed)

FINDINGS OF THE STUDY

- The correlation between simple Reaction time : light score and the performance of the players was negative and $r = -0.197$
- The correlation between simple reaction time-sound score and the performance of the players was negative and $r = -0.163$
- The correlation between discrimination reaction time-light score and the performance of the players was negative and $r = -0.126$
- The correlation between the discrimination reaction time-sound score and the performance of the players was negative and $r = -0.093$

DICUSSIONS

The mean reaction time was found to be significantly different among chasers, dodgers, and al rounder kho-kho players. Chasers had better reaction time than the other two.

Chasers, better performance of chasers in the simple reaction time test was considered Logical closed scrutiny of training and game play of kho-kho

illustrates as chasers have to react in quick span of time in order to maximum

See the chances of cashing in on the situations and either put-out a Defender or put him/her in peril. The chaser is called upon to take after decision in split second time as regards to rushing a dodger or to give Kho.

As an attacking team member while sitting on a square, a chaser is required to be in reading position-through he was touched by his team male expecting him to utter the word "Kho" only after which he will start the purist. A slight movement of the doing before the utterance of the work 'kho' by the attacker will turn out to be counterproductive and such kho-kho players who lack the touch and auditing reaction will grave to be liabilities. Similarly, the chaser on hearing the word 'kho' uttered by the attacker is required to make critical analysis of the situation relate his position to that of the defender his vulnerable and dominant players among the co-chasers and resort to appropriate movement patterns. On account of pregeminal reposition of such moves during training and competitions the kho-kho players who discharge the duties as predominantly chasers will develop better reaction time and concentration.

- The mean reaction time was found to be significantly different among chasers, dodgers, and al rounder. Kho-kho players Dodgers had least reaction time then the other two.

The defense player for showing in reaction time is also logical. The defense players are called upon to consume as much chasing time as possible by staying on field remaining as not-out. Thus the defenders perform under physical strain more than the other of players. It is common knowledge that agility and reaction time are affected by fatigued constriction.

The mean reaction time was found to be significantly different among chasers, dodgers, and al rounder. Kho-kho players. All-rounders had in between reaction time than the other two.

The intermediate level of performance in simple reaction time and concentration test by the all rounding is also logical since this category of Kho-Kho players spend considerable amount of time in rehearsing the attacking skills, which facilitates acquire better reaction time and concentration. However their involvement in the training of reference skills deter the performance in reaction time and concentration events and hence their status

CONCLUSIONS

From the findings of the study it may be concluded that:

There exists significant mean difference in the score of the simple reaction time : sound among dodgers, chasers and all-rounders with chasers having better simple reaction time : sound score than dodgers and all-rounder; significant mean difference in the score of the discrimination reaction time-light among dodgers, chasers and all-rounders with chasers having better discrimination reaction time-light score than dodgers and all-rounders; and significant mean difference in the score of performance among dodgers, chasers and all-rounders with chasers having better performance score than dodgers and all-rounder.

REFERENCE

- P. Nataraj (2002). "Manual of Experiments in Psychology" 3rd Revised Edition, Srinivas Publication, Mysore, pp. 209-216.
- Schollarnder, D (2003). Deep Water. Journal of sports and sports sciences, SAI publication N.S. NIS Patiala, Vol, 26(3), p. 35.

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