

## Analytical Study on Speed Variable of Bio-motor Ability Among National Level Kho-Kho Players

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**ABSTRACT:** *The objective of the study was to compare the speed component of bio-motor abilities among selected State's national-level kho-kho players in south India. A sample of 60 senior men national kho-kho players were selected from Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, and Telangana. The speed of subjects was measured by the 30mtr Dash test. The Collected data were analysed by computing the descriptive statistics, 'ANOVA', and Bonferroni post hoc test procedure was applied to Analyse and compare the speed among National level kho-kho players of selected states in south India. The result indicated that there was a significant difference in speed ability among National level kho-kho players of selected states. The outcome of the study might help coaches and physical education to .increasing the performance of kho-kho players in respective states.*

**Keywords :** *Bio-motor ability, Speed, Kho-kho.*

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### **Introduction:**

The bio-motor capacities are critical in games, without the advancement of bio-motor capacities one can't enhance any game's execution. In that approach to create bio-motor abilities like, speed, Endurance, flexibility, agility, explosive strength, etc... The enhancement of these capacities is obliging and fundamental in-game preparing and various types of training are required to accomplish these bio-motor capacities.

The kho-kho player's execution depends on a higher state of bio-motor best factors like speed, endurance, agility, power, flexibility, balance, reaction time, neuromuscular co-ordination, explosive strength, speed of movement and match rehearses are the key characteristics that ought to run with the kho-kho players. The Coach and amusement master must be searched for to build up these kho-kho players' capacities by executing the different preparing strategies. Presently a day's greater improvement seen in this amusement on the off chance that they are physically Fitness,

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has been done in this document. The examination researcher experienced the writing accessible with respect to the commitment of various bio-motor abilities parts to the playing capacity of Kho-Kho players. Anyway subsequent to experience it was discovered that lacking logical work has been done in this document. Keeping this in the psyche and after discussion with specialists, at long last research researchers have undertaken the present examination to analyze and compare the speed of bio-motor capacity of male national dimension kho-kho players in various states. In the game of kho-kho lots of fitness, bio-motor abilities, and skills are required to better perform.

#### **OBJECTIVES OF THE STUDY:**

- To know the overall analysis of the speed variable of bio-motor abilities among national-level kho-kho players in selected states.
- To compare the speed variable among National level kho-kho players in selected states.

#### **HYPOTHESIS:**

- There would be no significant difference in speed variables among national-level Kho-Kho players.

#### **METHODOLOGY:**

For the purpose of the study, a total of 60 subjects were selected from National level male kho-kho players in the senior category, those who participated in senior national championships in selected states. In each state 12 subjects were selected from Karnataka, Kerala, Andra Pradesh, Tamil Nadu, and Telangana. The age of the subject ranged from 18 years and above. For this study, the Bio-motor ability variable of Speed (30mtr Dash) was selected. To find out the significant differences among selected National level Kho-kho players in selected states. ANOVA test was applied with the help of SPSS software, for testing the hypothesis, the level of significance chosen was 0.05.

**RESULT AND INTERPRETATION****TABLE:1****Descriptive analysis of Speed among National level senior kho-kho players in selected states**

**Interpretation:** Table.1 Shows that mean and standard error of Speed for selected states

States	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Andra Pradesh	12	4.937	0.316	0.091	4.37	5.59
Karnataka	12	3.508	0.568	0.164	2.30	4.20
Kerala	12	3.419	0.855	0.247	2.18	4.40
Tamilnadu	12	5.805	3.503	1.011	3.16	16.18
Telangana	12	3.772	0.507	0.146	3.12	4.50

since the calculated values of Andra Pradesh  $4.937 \pm 0.091$ , Karnataka  $3.508 \pm 0.164$ , Kerala  $3.419 \pm 0.247$ , Tamil nadu  $5.805 \pm 1.011$  and Telangana  $3.772 \pm 0.146$ . Secondly the minimum and maximum score for Andra Pradesh (4.37 and 5.59), Karnataka (2.30 and 4.20), Kerala (2.18 and 4.40), Tamil Nadu (3.16 and 16.18), and Telangana (3.12 and 4.50). The standard deviation of all states was 0.316, 0.568, 0.855, and 3.503 and 0.507 respectively.

**TABLE: 2****ANNOVA result on speed among National level kho-kho players in selected states**

Source	Dependent Variable	Sum of Squares	Df	Mean Square	F	p-value
States	Speed	52.250	4	13.062	4.772	0.002*

\*Significance at 0.05 level (Table Value for 0.05 level for df 4 & 55 = 2.53)

**Inference:** In the above Table 1 shows the appraised p-value  $0.002^* < 0.05$  at 5% level of significance and f value  $4.772 > 2.53$ , we reject the hypothesis and conclude that there was significance difference obtained among selected states in speed.

**TABLE: 2**

**Result of Bonferroni post hoc test procedure for Speed: Comparison between the States.**

Mean value					Mean difference	Sig
Andra Pradesh	Karnataka	Kerala	Tamil Nadu	Telangana		
4.93	3.50				1.429	0.389
4.93		3.41			1.518	0.286
4.93			5.80		-0.868	1.000
4.93				3.77	1.165	0.902
	3.50	3.41			0.089	1.000
	3.50		5.80		-2.298	<b>0.013*</b>
	3.50			3.77	-0.264	1.000
		3.41	5.80		-2.387	<b>0.008*</b>
		3.41		3.77	-0.353	1.000
			5.80	3.77	2.033	<b>0.039*</b>

\*Significant at 0.05 level

**Inference:** In Table 4.6 multiple comparisons presented that there was a significant difference in speed between Karnataka and Tamil Nadu. The estimated mean difference is -2.298 and the p-value < 0.05 level of significance. Therefore, we rejected the hypothesis.

There was a significant difference between Kerala and Tamil Nadu, the appraised mean difference was -2.387, and the p-value < 0.05 level of significance. Therefore, we rejected the hypothesis.

There was a significant difference between Tamil Nadu and Telangana. The calculated mean difference is 2.033 and the p-value < 0.05 level of significance. Therefore, we rejected the hypothesis.

There was no significant difference between Andra Pradesh compared with Karnataka, Kerala, Tamil Nadu, and Telangana the computed mean difference 1.429, 1.518,

-0.868, 1.165 respectively, and p-values 0.389, 0.286, 1.000, 0.902 > 0.05 level of significance. Therefore, we accept the hypothesis.

In the speed variable There was no significant difference in speed between Karnataka and Kerala (Mean difference = 0.089, p-value 1.000 > 0.05 level of significance), Karnataka and Telangana (MD=-0.264, p-value 1.000 > 0.05 level of significance) and between Kerala and Telangana (MD=-0.353, p-value 1.000 > 0.05 level of significance). Therefore, we accept the hypothesis.

### **CONCLUSION:**

On the basis of the obtained result from the present analysis, It may be concluded that National level kho-kho players in selected states differ on speed variables.

In the speed variable Andhra Pradesh compared with Karnataka, Kerala, Tamil Nadu, and Telangana, there was no significant difference among national-level kho-kho players. Karnataka.

On other hand the Karnataka compared with Kerala, Tamil Nadu, and Telangana, there was no significant difference between Karnataka and Kerala, Karnataka and Telangana and there was a significant difference between Karnataka and Tamil Nadu in the speed variable.

Next, in Kerala compared with Tamil Nadu and Telangana, there was no significant difference between Kerala and Telangana in speed variable and there was a significant difference between Kerala and Tamil Nadu.

Also, there was a significant difference between Tamil Nadu and Telangana in speed variables.

Finally, the study concluded that Kerala players are better than all selected states ( Andhra Pradesh, Karnataka, Tamil Nadu, Telangana) in speed variables.

### **RECOMNADTIONS:**

- It may be recommended to similar study conduct on female national level kho-kho players that future investigator for further research.
- The researcher recommended to similar study conduct on sub-junior and junior kho-kho players.

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