

A Comparative Study on Speed of Footballers at different Sports Authority of India Centres

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Abstract

The purpose of the study was to compare Speed of Footballers at different Sports Authority of India Centres. In this study two hundred eighty football fourteen different players training at training centres and sub centres of Sports Authority of India were selected. Twenty football players with their age ranging between 18-22 years were selected from each Sports Authority of India training centres and sub centres.

To characterize football players by Speed, the Descriptive statistics were used. To examine significant differences in different Sports Authority of India training centres and sub centres of India, Descriptive statistics and Analysis of Variance were calculated with the help of SPSS and was tested at 0.05 level of significance.

The results were analyzed statistically and on the basis of the obtained results from the present study it may be concluded that among different training centres and sub centres of SAI significant differences were observed in the Speed.

Key Words: Speed, Football Trainees, SAI.

1. Introduction:

The game of football is any of several similar team sports of similar origins which involve advancing a ball into a goal area in an attempt to score. Many of these involve kicking a ball with the foot to score a goal, though not all codes of football using kicking as a primary means of advancing the ball or scoring. The most popular of these sports worldwide is association football, more commonly known as just "FOOTBALL" or "SOCCER" unqualified the word football applies to whichever form of football is the most popular context in which the word appears, including American football, Australian rules football etc.

2. Materials & Methods:

2.1 Sample of the Study:

The present study was conducted on two hundred eighty football fourteen different players training at training centres and sub centres of Sports Authority of India of India were selected. Twenty football players with their age ranging between 18-22 years were selected from each Sports Authority of India training centres and sub centres. The subjects had participated in football training programme regularly for a number of years in their respective SAI centre.

2.2 Selection of the Variable:

The Speed have been selected for purpose of this study.

2.3 Collection of Data:

The data was collected from all the subjects in their respective SAI training centres as mention below:-

- Kolkata, West Bengal.
- Burdwan, West Bengal.
- Labong, West Bengal.
- Siliguri, West Bengal.
- Patna, Bihar.

- Agartala, Tripura.
- Gandhinagar, Gujarat.
- Aurangabad, Maharashtra.
- Sikkim, Sikkim.
- Shillong, Meghalaya.
- Dimapur, Nagaland.
- Imphal, Manipur.
- Guwahati, Assam.
- Golaghat, Assam.

2.4 Criterion Measures:

Speed was measured by the 40 Yard Dash and recorded to the nearest seconds.

2.5 Administration of the Test:

SPEED (40 Yard Dash)

Purpose -To measure the speed of the subjects.

Equipment- Smooth surface test course, scorecards, electronic stopwatch, and a starting clapper.

Procedure- The subject was asked to take starting position behind the starting line. The test administrator raised both arms sideways to designate the set position. The Go signal was given by rapidly lowering the arms. The administrator had a stopwatch which was started as soon as the GO signal was given. The subject ran to cross the finish line and the watch was stopped when the subject's torso crossed the finish line. Best of two trials was considered.

Scoring- The time was recorded in the nearest of a second.

2.6 Statistical Technique:

To characterize football players by speed, the Descriptive statistics were used. To examine significant differences in different Sports Authority of India training centres and sub centres of India, Descriptive statistics and Analysis of Variance were calculated with the help of SPSS and was tested at 0.05 level of significance.

3. Results of the Study:

Table 1:
Descriptive Statistics of the Physical Fitness Variable of Speed for Footballers Training at SAI

SAI TRAINING CENTRES	N	MINIMUM	MAXIMUM	MEAN	SD
Kolkata SAI	20	3.20	6.20	4.75	0.63
Burdwan SAI	20	3.20	6.10	4.40	0.83
labong SAI	20	3.20	5.30	4.36	0.65
Siliguri SAI	20	3.20	5.30	4.34	0.72
Patna SAI	20	3.30	6.15	4.70	0.73
Agartala SAI	20	3.10	5.20	4.33	0.72
Gandhinagar SAI	20	3.10	4.80	4.02	0.47
Aurangabad SAI	20	3.50	5.60	4.56	0.56
Sikkim SAI	20	3.20	5.20	4.18	0.65
Shillong SAI	20	3.20	5.00	4.16	0.64
Dimapur SAI	20	3.30	4.90	4.31	0.48
Imphal SAI	20	3.50	5.10	4.64	0.47
Guwahti SAI	20	3.20	6.20	4.55	0.77
Golaghat SAI	20	3.20	5.90	4.64	0.72

Above table 1 indicates that the mean and SD of SAI football players in their Speed was Kolkata SAI 4.75 ± 0.63 , Burdwan SAI 4.40 ± 0.83 , labong SAI 4.36 ± 0.65 , Siliguri SAI 4.34 ± 0.72 , Patna SAI 4.70 ± 0.73 , Agartala SAI 4.33 ± 0.72 , Gandhinagar SAI 4.02 ± 0.47 , Aurangabad SAI 4.56 ± 0.56 , Sikkim SAI 4.18 ± 0.65 , Shillong SAI 4.16 ± 0.64 , Dimapur SAI 4.31 ± 0.48 , Imphal SAI 4.64 ± 0.47 , Guwahti SAI 4.55 ± 0.77 , Golaghat SAI 4.64 ± 0.72 , respectively.

**The Combined depictions of mean scores of all the SAI centres are given in figure: 1.
 (Means Scores of Speed of Footballers Training at SAI)**

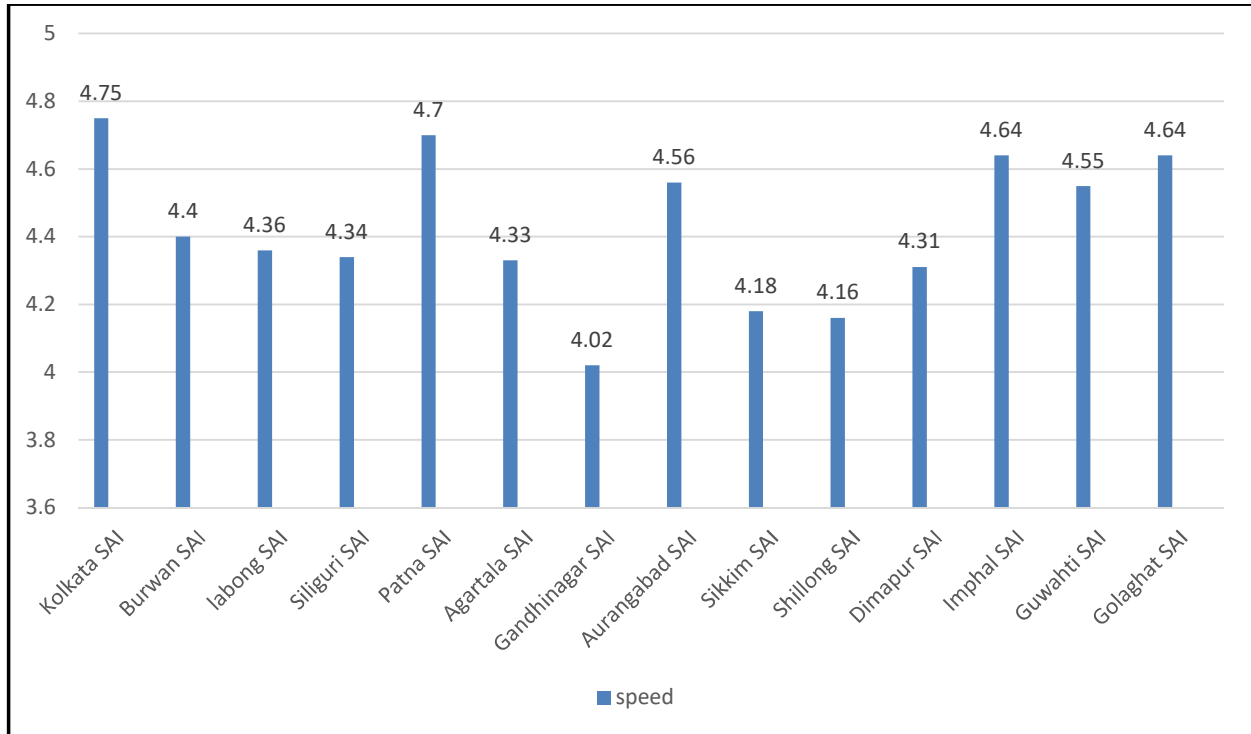


Table 2:
Analysis of Variance of Speed of the Footballers Training at Different SAI Centres

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	12.777	13	.983	2.251	.008
Within Groups	116.157	266	.437		
Total	128.934	279			

The F-value in Table 2 is significant as its p-value is .008 which is less than 0.05. Thus, the null hypothesis of no difference among the means of the different SAI groups may be rejected at 5% level.

Since F-value is significant, post hoc comparisons need to be done. SPSS output shown in Table 3 provides such comparison. It can be seen that the difference between speed of Kolkata SAI and Aurangabad SAI is significant as the p-value for this mean difference is .042 which is less than 0.05. Similarly, the mean difference between the speed Siliguri SAI and Aurangabad SAI .036, Patna SAI and Shillong SAI, Imphal SAI .010, .010, Gandhinagar SAI and Shillong SAI, Imphal SAI .004, .004, Aurangabad SAI and Shillong SAI, Dimapur SAI, Imphal SAI, Golaghat SAI .001, .024, .001, .032 are also significant as the p-value for this difference are also less than 0.05. However, there is no difference between the other SAI as far as speed is concerned because the p-value of another SAI is more than 0.05.

Table 3:
Post Hoc Mean Comparison of Speed of Footballers Training at Different SAI Centres

(I) SAI Centre	(J) SAI Centre	Mean Difference (I-J)	Std. Error	Sig.
Kolkata SAI	Burdwan SAI	.35000	.20897	.095
	labong SAI	.39500	.20897	.060
	Siliguri SAI	.41500*	.20897	.048
	Patna SAI	.05250	.20897	.802
	Agartala SAI	.42500*	.20897	.043
	Gandhinagar SAI	.73000*	.20897	.001
	Aurangabad SAI	.19500	.20897	.352
	Sikkim SAI	.57500*	.20897	.006
	Shillong SAI	.59500*	.20897	.005
	Dimapur SAI	.44000*	.20897	.036
	Imphal SAI	.11500	.20897	.583
	Guwahti SAI	.20000	.20897	.339
	Golaghat SAI	.11000	.20897	.599
Burdwan SAI	labong SAI	.04500	.20897	.830
	Siliguri SAI	.06500	.20897	.756
	Patna SAI	-.29750	.20897	.156
	Agartala SAI	.07500	.20897	.720
	Gandhinagar SAI	.38000	.20897	.070
	Aurangabad SAI	-.15500	.20897	.459
	Sikkim SAI	.22500	.20897	.283
	Shillong SAI	.24500	.20897	.242
	Dimapur SAI	.09000	.20897	.667
	Imphal SAI	-.23500	.20897	.262
	Guwahti SAI	-.15000	.20897	.474
Golaghat SAI	-.24000	.20897	.252	
labong SAI	Siliguri SAI	.02000	.20897	.924
	Patna SAI	-.34250	.20897	.102
	Agartala SAI	.03000	.20897	.886
	Gandhinagar SAI	.33500	.20897	.110
	Aurangabad SAI	-.20000	.20897	.339
	Sikkim SAI	.18000	.20897	.390
	Shillong SAI	.20000	.20897	.339
	Dimapur SAI	.04500	.20897	.830
	Imphal SAI	-.28000	.20897	.181
	Guwahti SAI	-.19500	.20897	.352
Golaghat SAI	-.28500	.20897	.174	
Siliguri SAI	Patna SAI	-.36250	.20897	.084
	Agartala SAI	.01000	.20897	.962
	Gandhinagar SAI	.31500	.20897	.133
	Aurangabad SAI	-.22000	.20897	.293
	Sikkim SAI	.16000	.20897	.445
	Shillong SAI	.18000	.20897	.390
	Dimapur SAI	.02500	.20897	.905
	Imphal SAI	-.30000	.20897	.152
	Guwahti SAI	-.21500	.20897	.304
Golaghat SAI	-.30500	.20897	.146	

	Agartala SAI	.37250	.20897	.076
	Gandhinagar SAI	.67750*	.20897	.001
	Aurangabad SAI	.14250	.20897	.496
	Sikkim SAI	.52250*	.20897	.013
Patna SAI	Shillong SAI	.54250*	.20897	.010
	Dimapur SAI	.38750	.20897	.065
	Imphal SAI	.06250	.20897	.765
	Guwahti SAI	.14750	.20897	.481
	Golaghat SAI	.05750	.20897	.783
	Gandhinagar SAI	.30500	.20897	.146
	Aurangabad SAI	-.23000	.20897	.272
	Sikkim SAI	.15000	.20897	.474
Agartala SAI	Shillong SAI	.17000	.20897	.417
	Dimapur SAI	.01500	.20897	.943
	Imphal SAI	-.31000	.20897	.139
	Guwahti SAI	-.22500	.20897	.283
	Golaghat SAI	-.31500	.20897	.133
	Aurangabad SAI	-.53500*	.20897	.011
	Sikkim SAI	-.15500	.20897	.459
	Shillong SAI	-.13500	.20897	.519
Gandhinagar SAI	Dimapur SAI	-.29000	.20897	.166
	Imphal SAI	-.61500*	.20897	.004
	Guwahti SAI	-.53000*	.20897	.012
	Golaghat SAI	-.62000*	.20897	.003
	Sikkim SAI	.38000	.20897	.070
	Shillong SAI	.40000	.20897	.057
	Dimapur SAI	.24500	.20897	.242
Aurangabad SAI	Imphal SAI	-.08000	.20897	.702
	Guwahti SAI	.00500	.20897	.981
	Golaghat SAI	-.08500	.20897	.685
	Shillong SAI	.02000	.20897	.924
	Dimapur SAI	-.13500	.20897	.519
Sikkim SAI	Imphal SAI	-.46000*	.20897	.029
	Guwahti SAI	-.37500	.20897	.074
	Golaghat SAI	-.46500*	.20897	.027
	Dimapur SAI	-.15500	.20897	.459
Shillong SAI	Imphal SAI	-.48000*	.20897	.022
	Guwahti SAI	-.39500	.20897	.060
	Golaghat SAI	-.48500*	.20897	.021
	Imphal SAI	-.32500	.20897	.121
Dimapur SAI	Guwahti SAI	-.24000	.20897	.252
	Golaghat SAI	-.33000	.20897	.115
	Guwahti SAI	.08500	.20897	.685
Imphal SAI	Golaghat SAI	-.00500	.20897	.981
Guwahti SAI	Golaghat SAI	-.09000	.20897	.667

*The mean difference is significant at the 0.05 level

4. Discussion:

Significant difference was found in case of speed of football players trained in training centres and sub centres of different Sports Authority of India. Therefore, proposed hypothesis has been rejected in case of speed.

The significance difference that was found in the present study may also be attributed to the fact that every individual has a different and unique combination of muscles fibers which produces speed in various body parts & in different intensity

The conclusion of the present study here by justify with the scientific reason and attributed to the types of muscle fibers found in the body.

5. Conclusion:

The results were analyzed statistically and on the basis of the obtained results from the present study it may be concluded that among different training centres and sub centres of SAI significant differences were observed in the speed.

6. References:

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