

Comparison of Speed and Agility among the three different levels of School Athletes

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Abstract

The purpose of the present study was to determine the difference in the variables of speed and agility among the three different levels of athletes i.e. School, Tahsil and District .For purpose of this study total 120 male athletes were randomly selected from different level of school competitions as subjects i.e. School(40), Tahsil (40), and District (40).The data pertaining to this study were collected on the selected subjects by administering the tests of 50m.dash for Speed and 4X10 m shuttle run for Agility. To determine significant difference among the three selected levels of athletes ,One way Analysis of variance (F-ratio) and LSD Post Hoc Test statistical techniques were employed. Significant difference was observed among the mean performance of District, Tahsil and School level male athletes in the variables of Speed and Agility. Superior performances was shown by the district levels of athletes, followed by tahsil level and last performance by school level athletes.

Introduction

Fitness is the basis of any games and sports, accordingly every coach or trainers pay due attention to develop the physical fitness of their athletes or players up to optimum level, so as to their athletes or players can exhibit best performance during competition and tournaments.

Hence researcher was interested to undertake the study , entitled comparison of Speed and Agility among the three different levels of School Athletes. Singh, Amarpreet , concluded that there was significant difference in the differentiation and orientation ability in between inter collegiate and inter university players. Inter university Basketball players showed significantly superior performance compare to Inter collegiate players .Raju ,Jonson and Babu stated on the basis of their research findings that the students belong to 14 years of age are superior in differentiations, Orientation, Balancing and Reaction ability while compared against other age groups of between 11 to 14 years. Significant difference was found in the selected coordinative abilities in between intercollegiate and intervarsity level female basketball players as Lohchab's.

Purpose of Study

The main purpose of the study was to determine the difference in variables of speed and agility among the three different levels of School Athletes.

Hypothesis

On the basis of available literatures and scholars own understanding the problem ,it was hypothesized that there would be significance of difference in the

variables of speed and agility among the Male Athletes of School, Tahsil and District level.

Methodology

Selection of Subjects — For the purpose of this study, subjects were selected from different levels of school competitions. Total 120 male student athletes belonged to School (N=40), Tahsil (N=40) and District (N=40) competitions of athletics from Maharashtra state were selected using simple random sampling method.

Collection of Data

The data pertaining to the study were collected on the selected subjects by administering the tests of 50 dash for speed and 4X10 mts. shuttle run for agility.

Before collecting the data the research scholar explained the purpose of the study to the subjects and also explained the procedure of testing, so as the subjects put their best. The obtained scores of each athletes were tabulated for further statistical treatment.

Analysis and Interpretation of Data

To determine the significant difference if any in the selected physical fitness components of School Male Athletes from Three levels of competition, One way Analysis of variance (F-ratio) and LSD Post Hoc test statistical techniques were employed.

Table-1

SUMMARY OF ANOVA FOR THE DATA ON SPEED AND AGILITY OF THREE LEVELS OF SCHOOL MALE ATHLETS

| Variable | Score of variance | Sum of Square | df | Mean Square | F-ratio |
|----------------|-------------------|---------------|-----|-------------|---------------|
| SPEED | Between groups | 2.95 | 2 | 1.47 | 11.85* |
| | Within Groups | 14.56 | 117 | 0.124 | |
| AGILITY | Between groups | 16.24 | 2 | 8.12 | 42.07* |
| | Within Groups | 22.66 | 117 | 0.193 | |
| | Total | 38.90 | | | |

*Significant at 0.05 level

Tabulated $F_{.05(2,117)} = 3.0764$

From the Table-1, it is evident that the F-value of 11.85 and 42.07 are significant at 0.05 level with df 2/117. It means speed (50 yards dash), agility (4X10

shuttle Run) differ significantly among the male athletes of School, Tahsil and District level.

Since the obtained F-ratio were found to be significant, therefore for finding out Paired Mean difference between the groups LSD Post hoc test was applied and it has been given below.

Table-2

PAIRED MEAN DIFFERENCE IN SPEED AND AGILITY FOR SCHOOL, TAHSIL AND DISTRICT LEVELS OF SCHOOL MALE ATHLETES

| Comparison of Group | | Mean Difference | Critical Difference | |
|---------------------|--------|-----------------|---------------------|-------|
| Mean Difference | | | | |
| Speed | School | Tahsil | 0.010 | 0.156 |
| | School | District | 0.168* | 0.156 |
| | Tahsil | District | 0.158* | 0.156 |
| Agility | School | Tahsil | 0.303* | 0.194 |
| | School | District | 0.790* | 0.194 |
| | Tahsil | District | 0.486* | 0.194 |

***Significant at 0.05 level**

The findings of table 2 indicate that the District level of athletes performance in speed differ significantly (MD = 0.168 and 0.158) with School level and Tahsil level, whereas insignificant difference was found in between School and Tahsil levels (MD=0.010) of athletes in mthe variable of speed.

It is also evident from the above table that the mean of Agility of School athletes differs significantly with tahsil level (MD =0.303) and District level (MD = 0.790), and

mean difference value are higher than the critical difference value of 0.194 at 0.05 level. District levels athletes showed superior performance than Tahsil levels of athletes (MD=0.486) at 0.05 level.

Discussion

From the analysis of data it is observed that the competitors of higher level had the better timing in 50 yards dash as well as shuttle run performance than the lower level, i.e. District levels athletes shown the best timing than the School and Tahsil level. The reason may be because the speed is considered as a strength dominated as well as anaerobic activity which is greater an inherited potential, those who possess greater proportion of white muscle fibers, they become good sprinters, simultaneously they need to develop optimum level of muscular power which needs more systematic training schedule. Hence the result of the study revealed that District level athletes were shown fastest than the others. The results of the present study are in the consonance with the finding of Singh, Raju, P. Johnson, Babu And Lohchab.s

Conclusions

Within the limitations of the present study and on the basis of findings the following conclusions are drawn.

- 1) Significant differences were observed among the mean performers of District level, Tahasil and School male athletes in the variables of Speed and Agility.
- 2) District level school male athletes were significantly superior in the variables of Speed and Agility while compared against the Tahsil and School level.
- 3) In both the variables superior performances was shown by the District levels of athletes and it was followed by Tahasil of athletes and least performance was shown by School levels of athletes.

References:

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