

Comparative study of coordinative ability of male and female athletes

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Abstract

During the past some decades or so, the concept of scientific training has been very important role in sports and physical Education. Many studies have been completed on scientific training literature. Many studies also have proved the effects of scientific training on performance of sports persons. Reaction ability is the deciding factor in achieving the top performance in athletics, therefore the researcher took reaction ability test for their study.

40 junior track and field athletes of Sirsa and Fatehabad District were randomly selected for the study and were compare their reaction ability. The reaction ability was tested with Nelson reaction test manual

The study showed that the track athletes has more reaction ability in both category hand-eye and leg-eye reaction ability, and it was significantly different at .05 level of significance.

Keywords: Hand-eye reaction, leg-eye reaction, nelson reaction test

Introduction

Coordinative ability variables which were previously considered as the part of the physical fitness factors of the players of different games are now studied separately and have the equal importance in terms of achievements in that game as physical fitness factors effect. The agility ability is covered both under the physical fitness factors and as one of the coordinative ability factors. In fact, some of the researchers have derived coordinative ability has wide scope and importance in game and sports.

Coordinative abilities primarily depend, upon the motor control and regulation process of Central Nervous System. The theory of motor coordination, therefore, is the basis of understanding the nature of coordinative abilities, as mentioned by Blame (1978). Different experts have observed different number of coordinative abilities.

Schanable (1974) was of the opinion that the concept of agility be replaced by the concept of three coordinative abilities:-

1. Orientation Ability
2. Differentiation Ability
3. Reaction Ability

Physical Fitness & coordinative factors are the component which helps in achieving excellence in the competitive arena of games and sports. The physical fitness factor co realities to the capacities and capabilities of the human physiology to make the movement in physical activities and sports more efficient effective and economical. The best performance can be achieve by making the movement and desired above. The same time any performance or skill in any game in the arena of competitive sports can bring laurels and achievement. If the body movement is summarized by the coordination of the body movement of each part such type of coordination leads to lesser energy consumption and can perform extreme movement with maximum use of body energies. The body rhythm, differentiation, orientation and balance by the body helps in well coordination of body movement. Hence the coordinative ability is very important in the area of physical activities, games and sports. Even the cricket game which is

played on a wider field requiring a lot of skill i.e. speed of bowler and fielder, agile movement of the fielders and lot of coordination of body movement during batting and catching a ball. Even the smallest body part i.e. fingers and their tips play important roll in a well coordinative manner for producing leg spin and off spin bowling skill to achieve better performance. Lot of roll, divers, jumps, terms are performed by the fielders to catch and hold the ball for better fielding purpose. Hence the coordinative ability is essentially required for the athletes at every level.

Objective

To compare the coordinative ability of male and female athletes.

Methodology

40 athletes of Sirsa and Fatehabad district were randomly selected for the study out of these 20 were male athletes and 20 were female athletes included. The age of athletes was 16 to 20. Three items of coordinative ability i.e. balancing, agility and rhythmic included in the study. The data is collected on the subjects cited above by the investigator by personality approaching the student at their colleges/training centres. The test battery selected was used to collect the data. The investigator took the help of Physical Education teachers at these colleges, and sports.

The t-test were applied for statistical treatment and after the statistical analysis, the results were presented in the tables. The means difference was test at .05 level of confidence.

Results of the study

Table 1: Comparison Mean Score of Zig Zag Run Test Between male and female athletes

Respondents	N	Mean	S.D.	S.E.D.	't'- value
Male	20	4.03	.86	.267	6.21
Female	20	6.44	1.05		

Level of Significance - 0.05

Table-1 the above, the mean male athletes were 6.44 and female athletes were 4.03. The S.D. of male athletes were .86 and female athletes were 1.05, and the calculated value of 't' was 6.21, which was more than P value. It means that the null hypothesis was rejected at the 0.05 level of significance and significant difference was found between the male athletes and female athletes in Zig Zag Run.

Table 2: Comparison Mean Score of Item Rhythmic Test Between male and female athletes

Respondents	N	Mean	S.D.	S.E.D.	't'- value
Male	20	22.6	1.85	.254	10.28
Female	20	18.9	1.75		

Level of Significance - 0.05

As shown in Table-2 above, the mean score of male athletes was 22.6 and female athletes was 18.9. The S.D. of male athletes were 1.85 and female athletes were 1.75 and the calculated value of 't' was 10.28, which was more than P value. It means that the hypothesis was rejected at the 0.05 level of significance and significant difference was found between the male athletes and female athletes in Rhythmic Test.

Table 3: Comparison Mean Score of the Beam Walk Test Between male and female athletes

Respondents	N	Mean	S.D.	S.E.D.	't'- value
Male	20	4.31	.83	.432	4.37
Female	20	2.79	.61		

Level of Significance - 0.05

As shows in Table-3 above, the mean score of male athletes group were 4.31 and female athletes were 2.79. The S.D. of male athletes were .83 and female athletes were .61, and the calculated value of 't' was 4.37 which was more than P value. It means that the hypothesis was rejected at the 0.05 level of significance and significant difference was found between the male athletes and female athletes in balance test.

Result

On the basis of analysis and interpretation of the data showed that the Male athletes has better than female athletes in agility whereas female athletes was better in rhythmic and balancing ability and it was significantly different at .05 level of significance.

References

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