COMPARATIVE STUDY OF SPECIFIC MOTOR FITNESS ABILITIES AMONG HIGH AND LOW ACHIEVERS

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INTRODUCTION

In physical education activities, the individual involved in all types of activities which ultimately leads to increase in the motor performance. Research has shown that the high level of technique perfection alone cannot produce success in competitive sports. Most of the games and sports demands higher level of speed, strength, endurance, flexibility, coordination and optimum fitness of the athletes. Motor fitness plays a very important part in acquiring and developing skills. In team games like soccer, hockey, basketball, volleyball etc. speed, strength, flexibility, endurance, neuro- muscular coordination is very much essential .so the players who are physically more fit adopts the skill success fully and more perfectly. It is experienced that the individual having good skills do have certain motor abilities which enable him to perform the skill with more grace, accuracy and economically in not only one sport but in many sport. It has been experienced by the researcher that there may be certain unique characteristics present in the high achievers in sports, which might contribute significantly. Similarly, the low achiever too may have certain unique characteristics, which might hinder towards their sports performance. The present study was initiates to find the specific differences in motor fitness characteristics between high and low achievers.

METHOD

The subjects were male students of bachelor of physical education from L.N.I.P.E. Gwalior (M.P.). The selection of the subjects was based on the marks scored in their previous years practical examinations. Subjects scoring seventy percent (70%) or more were termed as high achievers and subjects scoring sixty percent (60%) or less were termed as low achievers. Twenty-five subjects were selected randomly from the population of the high achievers and they were termed as high achievement groups. Similarly, twenty-five subjects were selected randomly from the population of low achievers and they were termed as low achievement groups.
There were many tests for measuring different motor abilities but the researcher had selected the test items keeping the limitations and suitability of the test items. For measuring specific abilities, the tests were-

50 yards dash.
Sit-ups
Sit and reach.
Shoulder rotation.
Standing broad jump.
Modified bass test for dynamic balance.

In order to compare the performance on selected motor fitness components of high and low achievement group, T-Ratio was employed. The level of significance was set at 0.05 level.

Results

The significance of mean difference of each test has been presented in table-1.

Table 1
Significance of Mean Difference between High and Low Achievement Group

S. No.	Test Item	Mean of High Achievement Group	Mean of Low Achievement Group	t-value
1	Sit - Ups (in Nos.)	36.24	26.2	**9.29***
2	Standing Broad Jump (in Mts)	2.51	2.13	**6.36***
3	50 Yard Dash (in Sec.)	6.54	7.68	**19.00***
4	Shoulder Rotation (in Cms.)	15.68	12.5	1.12
5	Modified Bass Test (in Nos.)	90.8	58.8	**7.12***
6	Sit and Reach Test (in Cms.)	6.05	4.79	1.85

From the above table it is evident the t-value of sit-ups (9.29), Standing broad jump (6.36), 50 yard dash (19.0) and modified bass test (7.12) were found to be significant at 0.05 level of confidence as the calculated t-values are grater than the tabulated t-values (2.02). Where as the t-value of shoulder rotation (1.12) and sit and reach (1.85) were found to be insignificant at 0.05 level of significance, as the calculated t-values are lesser than tabulated t-values (2.02).

Discussion

The finding reveals that their was a significant difference between high achievement group in 50 yard dash, sit-ups, standing broad jump and modified bass test. It seems logical that the performance of high achievement group was better as they possessed motor fitness components in abundance. It is a known fact that there is a very high relationship between motor fitness and performance. Hence, the presence of grater amount of motor fitness components in high achievement group seems to be justified.

Shoulder flexibility and hip flexibility of low achievement group was slightly better than the high achievement group. This difference was not significant. The reasons for the above findings may be due to the facts that flexibility depends upon the type of joint, strength of the muscle surrounding the joint as well as the length and stretchability of the muscles. It is generally noted that the sportsmen resort the weight training exercises in order to develop their strength of muscles, especially of shoulder, abdominal, back muscle, hamstring and quadriceps that may have negative effect on the flexibility of shoulder and hip. Hence, insignificant but slightly greater value for low achievement group in shoulder and hip flexibility seems to be justified.

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