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Role of physical fitness test for high school boys

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Abstract
Physical fitness is an inspirable part of sports performance and achievement of a sportsperson. A person is considered fit for a particular task or ability, which he can accomplish with a reasonable degree of efficiency, without undue fatigue and with rapid recovery from the effects of exertion.
To improve the physical fitness and performance in games and sports at national and international levels, our physical education programs should put greater emphasis on all-round development of school children. All those countries which have won medals in sports at international level have made special programs of physical fitness for school children.
Regular participation in well planned and scientific training programs of physical education contribute to improve the physical fitness and performance. The main reason of poor performance at international level sports is the poor physical fitness. In our country, most of the sportsmen belong to government schools and to rural areas.
The present paper has been prepared with the objective to compare the physical fitness of the government and private school boys.

Keywords: Physical, Fitness, Performance

Introduction
We, the Indians are very much concerned with the performance and status of sports persons at different levels. But the performance is a final output and the status includes various other aspects in addition to the performance. In the world of sports, physical education and games, every participating individual and/or spectator generally, puts his eyes on the positioned sportspersons and sportsperson also becomes in the main light in the field. The selectors at various levels, generally consider the performance in the trial and qualifying competitions, whereas the physical fitness, most of the times, is an ignored variable.
Barrow and McGee (1984), acknowledged that the physical fitness is a complex phenomenon consisting of various factors such as speed, strength, flexibility, agility, cardiovascular endurance etc.
Jonsen and Fisher (1989), explained that physical traits which are considered for sportspersons are strength, power, speed, agility, co-ordination, muscular endurance, reaction-time, cardiovascular respiratory endurance, and flexibility.
Mall (1982), stated that the components of physical fitness like strength, speed, endurance (and their complex form) flexibility and the various co-ordinative abilities are essential for a high technique and tactical efficiency. Depending upon the demand of the game, each factor of physical fitness should be optimally developed.

Hypothesis
"There will be significant difference in physical fitness components of govt. and private school boys".

Limitations of the study
The study is based on 100 school boys of Ghaziabad district and involves 5 physical fitness components.

Significant of study
Obtained knowledge about physical fitness of school boys will be useful for talent search and thus will lead to improve the sports performance.

Method and Procedure
A sample of 100 boy students of 14 to 16 years age group, from 5 government high schools and from 5 private high schools has been taken for the study.
Keeping in view the research criteria of availability, suitability, reliability and validity the AAHPER Youth Fitness Test Battery (1976) has been used to study, five components of physical fitness i.e. Abdominal Strength, Agility, Power, Speed and Endurance. In order to analyze the data, t-test is used to know the level of significance of difference between government and private secondary school boys' mean scores of physical fitness components.

Analysis of Data

Table I: Significance of Difference between Mean Scores of Govt. and Private School Boys on Sit-ups (A Physical Fitness Component).

Group	Mean	S.D.	Mean Difference	SED	t-ratio
Govt.	12.40	2.00	3.350	0.116	28.81*
Private	9.05	1.95			

* Significant at.01 level of confidence. Tabulated value $P<.01= 2.43$.

Results
Table1 represents the significance of mean difference between Govt. and Private school boys on physical fitness component test of abdominal strength i.e. Sit-ups.

It is given in Table-1 that the mean values of Sit-ups of Govt. and Private school boys were recorded as 12.40 with S.D. 2.00 and 9.05 with S.D 1.95 respectively. The mean difference was 3.350 and standard error of difference was 0.116. t-ratio was calculated as 28.81, which was found significant at.01 level of confidence.

Table 2: Significance of Difference between Mean Scores of Govt. and Private School Boys on Shuttle Run (A Physical Fitness Component).

Group	Mean	S.D.	Mean Difference	SED	t-ratio
Govt.	11.52	0.79	1.145	0.073	15.65*
Private	12.66	0.85			

* Significant at.01 level of confidence. Tabulated value *P*<.*01*= 2.43.

Results

Table-2 shows the significance of mean difference between Govt. and Private school boys on physical fitness component test of speed and agility i.e. Shuttle Run. It can be observed from Table-2 that the mean values of Shuttle Run of Govt. and Private school boys were recorded as 11.52 with S.D. 0.79 and 12.66 with S.D. 0.85 respectively.

The mean difference was calculated as 1.145 and standard error of difference was calculated as on 0.073. t-ratio was calculate as 15.65, that was found significant at.01 level of confidence.

Table 3: Significance of Difference between Mean Scores of Govt. and Private School Boys on Standing Long Jump (A Physical Fitness Component).

Group	Mean	S.D.	Mean Difference	SED	t-ratio
Govt.	6.07	0.13	0.621	0.007	93.39*
Private	5.45	0.15			

* Significant at.01 level of confidence. Tabulated value *P*<.01= 2.43.

Results

Table 3 depicts the significance of mean difference between Govt. and Private school boys on physical fitness component test of power i.e. Standing Long Jump.

The Table 3 shows that the mean value of Standing Long Jump of Govt. school boys was recorded 6.07 with S.D. 0.13 and of Private school boys was recorded 5.45 with S.D. 0.15. Standard error of difference was calculated as 0.007. t-ratio was calculated as 93.39, that was found significant at.01 level of confidence.

Table 4: Significance of Difference between Mean Scores of Govt. and Private School Boys on 50 Yards Dash (A Physical Fitness Component).

Group	Mean	S.D.	Mean Difference	SED	t-ratio
Govt.	7.45	1.48	1.161	0.086	13.57*
Private	8.62	1.70			

* Significant at.01 level of confidence. Tabulated value *P*<.01= 2.43.

Results

Table-4 shows the significance of mean difference between Govt. and Private school boys on physical fitness component test of speed i.e. 50 Yards Dash.

The Table-4 depicts that the mean value of 50 Yards Dash of Govt. school boys was calculated 7.45 with S.D. 1.48 and of Private school boys was calculated 8.62 with S.D. 1.70. The mean difference was calculated as 1.161 and standard error of difference was calculated as 0.086. t-ratio was calculated as 13.57, which was found significant at.01 level of confidence.

Table 5: Significance of Difference between Mean Scores of Govt. and Private School Boys on 600 Yards Run/Walk (A Physical Fitness Component).

Group	Mean	S.D.	Mean Difference	SED	t-ratio
Govt.	2.12	0.44	0.850	0.031	27.66*
Private	2.97	0.46			

* Significant at.01 level of confidence. Tabulated value *P*<.01= 2.43.

Results

Table-5 represents the significance of mean difference between Govt. and Private school boys on physical fitness component test of endurance i.e. 600 Yards Run/Walk.

The Table-5 shows that the mean value of 600 Yards Run/Walk of Govt. and Private school boys were recorded as 2.12 with S.D. 0.44 and 2.97 with S.D. 0.46 respectively. The mean difference was calculated 0.850 and standard error of difference was calculated as 0.031. t-ratio was calculated 27.66, which was found significant at.01 level of confidence.

Discussion of the Results

1. Abdominal Strength through Sit-ups: This movement was taken as a measurement of abdominal strength. Abdominal strength may be defined as a rate of doing work and it refers to the ability to release maximum force in the shortest possible time against a resistance. Abdominal strength is considered a very important factor of physical fitness parameters.

According to Table-1, t-ratio between government and private school boys on sit-ups in 28.81, which is more than the table value at.01 level of confidence. As the mean difference is 3.350, which is in favour of govt. group. More number of sit-ups indicates more abdominal strength. This shows that govt. school boys have more abdominal strength than private school boys. Hence, Hypothesis, "There will be significant difference in physical fitness components of govt. and private school boys is accepted.

2. Agility through Shuttle Run: This movement was taken as a measurement of agility. This is the ability of an individual to move the body and its parts through as wide range of motion as possible without facing undue strain at the articulations and muscle attachments.

According to Table-2, t-ratio between government and private school boys on shuttle run is 15.65, which is more than the table value at.01 level of confidence. As the mean difference is 1.145, which is in favour of private group and lesser timing in shuttle run indicates more agility. This means that government school boys have more agility than private school boys. Hence, hypothesis "There will be significant difference in physical and fitness components of Govt. and Private school boys" is accepted.

3. **Power through Standing Long Jump:** Power was measured by standing long jump. This is an important factor

in the performance of physical skills. It is muscular force, exerted, against moveable and immovable objects and it differs from individual to individual. A certain degree of power is necessary in performing the physical skills. High degree of power is regarded as luxury for greater cases of performance.

According to Table-3, t-ratio between government and private school boys on standing long jump is 93.39, which is more than the table value at.01 level of confidence. As the mean difference is 0.621, which is in favour of govt. group.High score of standing long jump indicates more power. This means that government school boys have more power than private school boys. Hence Hypothesis "There will be significant difference in physical fitness components of govt. and private school boys" is accepted.

4. Speed through 50 Yards Dash: The speed of the boys was measured by 50 yards dash. The speed is a prime quality of physical fitness components. The speed works which refer to the quickness and early reaction of body.

According to Table-5, t-ratio between government and private school boys on 50 yards dash 13.57, which is more than the table value at.01 level of confidence. As the mean difference is 1.161, which is in favour of private group and decreased time of 50 yards dash indicates more speed. This means that the government school boys have more speed than the private school boys. Hence the Hypothesis "There will be significant difference in physical fitness components of govt. and private school boys" is accepted.

5. Endurance through 600 Yards Run/Walk: Endurance of the subjects was measured through 600 yards run/walk. The endurance is considered the longer stay in ground, working for longer duration as it is the energy of the body to be spent for a longer period.

According to Table-5, t-ratio between government and private school boys on 600 yards run/walk is 27.66, which is more than the table value at.01 level of confidence. As the mean difference is 0.850, which is in favour of private group and decreased timing on 600 yards run/walk indicates more endurance. This means the government school boys have more endurance than the private school boys. Hence the Hypothesis "There will be significant difference in physical fitness components of govt. and private school boys" is accepted.

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