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# A Comparative Study on Selected Physical Fitness Variables among Government and Private School Going Boys

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## Abstract

The purpose of the study was to compare selected physical fitness variables among government and private school going boys. For the purpose of the study 50 boys (N=50) boys were selected from Government and private schools of Bijnor (UP), with age ranged from 14 to 17 year old. The selected subjects were divided into two groups, one who were studying in government school were labelled as government group and the other who were studying in private school were labelled as non-sports group. For the current study explosive leg strength, muscular strength, agility and speed were selected as variables. Explosive leg strength, muscular strength, agility and speed were measured by standing broad jump, grip dynamometer, 4*10 yard shuttle run and 50 meter dash respectively. There was a significant difference explosive leg strength, muscular strength, agility and speed between government and private school going boys. Hence, we conclude that explosive leg strength, muscular strength, agility and speed is better in government boys than private school going boys.

**Key words** Explosive leg strength, muscular strength, agility and speed

## Introduction

The World Health Organization (WHO) defines Physical activity as a bodily movement produced by skeletal muscles that substantially elevates energy expenditure. It may promote weight loss, reduction of visceral fat, lower blood pressure and even prevent of the onset of type 2 diabetes (**Reaven et al., 1991**). Physical fitness can be thought of as an integrated measure of most, if not all, the body functions (skeletomuscular, cardiorespiratory, hematocirculatory, psychoneurological and endocrine–metabolic) involved in the performance of daily Physical activity and/or physical exercise [1]. Hence, when Physical fitness is tested, the functional status of all these systems is actually being checked. This is the reason why Physical fitness is nowadays considered one of the most important health markers, as well as a predictor of morbidity and mortality for cardiovascular disease and other causes (**Ortega et al., 2008**). Some studies reported that being overweight and obesity decreased the physical exercise capability and then reduced health-related physical fitness, such as cardiorespiratory fitness and speed of movement (**Ding et al., 1990; Kovács et al., 2009).** Childhood and adolescence are crucial periods of life, since dramatic physiological and psychological changes take place at these ages. Likewise, lifestyle and healthy/unhealthy behaviors are established during these years, which may influence adult behavior and health status (**Ortega et al., 2008**). On the other hand

adequate fitness in childhood is likely to carry beneficial biological and behavioral effects into adulthood, for example physically active children are more likely to become physically active adults and physical fitness in children may protect against future cardiovascular disease (**Twisk et al., 2002**).

## Methodology

For the purpose of the study 50 boys (N=50) boys were selected from Government and private schools of Bijnor(UP), with age ranged from 14 to 17 year old. The selected subjects were divided into two groups, one who were studying in government school were labelled as government group and the other who were studying in private school were labelled as non-sports group. For the current study explosive leg strength, muscular strength, agility and speed were selected as variables. Explosive leg strength, muscular strength, agility and speed were measured by standing broad jump, grip dynamometer, 4*10 yard shuttle run and 50 meter dash respectively.

## Result and findings of the study

The data collected from subjects was analysed by employing descriptive statistics and independent t test. For the purpose of the study and statistical analysis the level of significance chosen was 0.05. The calculation was performed using SPSS software and the findings pertaining to descriptive statistics and t-test has been presented below:

**Group Statistics and Independent Sample Test of Selected Variables between Government and Private School Going Boys**

| Variable | Group | N | Mean | Std. Deviation | Std. Error Mean | t | df | Sig. (2-tailed) |
|---|---|---|---|---|---|---|---|---|
| **Explosive leg Strength** | Government | 25 | 6.8440 | .49923 | .09985 | 3.006 | 48 | .004 |
| | Private | 25 | 6.3880 | .57105 | .11421 | | | |
| **Muscular Strength** | Government | 25 | 47.4120 | 6.17875 | 1.23575 | 3.220 | 48 | .002 |
| | Private | 25 | 43.1880 | 2.20025 | .44005 | | | |
| **Agility** | Government | 25 | 7.7880 | .37162 | .07432 | 4.098 | 48 | .001 |
| | Private | 25 | 8.1136 | .14041 | .02808 | | | |
| **Speed** | Government | 25 | 6.4624 | .52814 | .10563 | 3.674 | 48 | .001 |
| | Private | 25 | 7.0496 | .59962 | .11992 | | | |

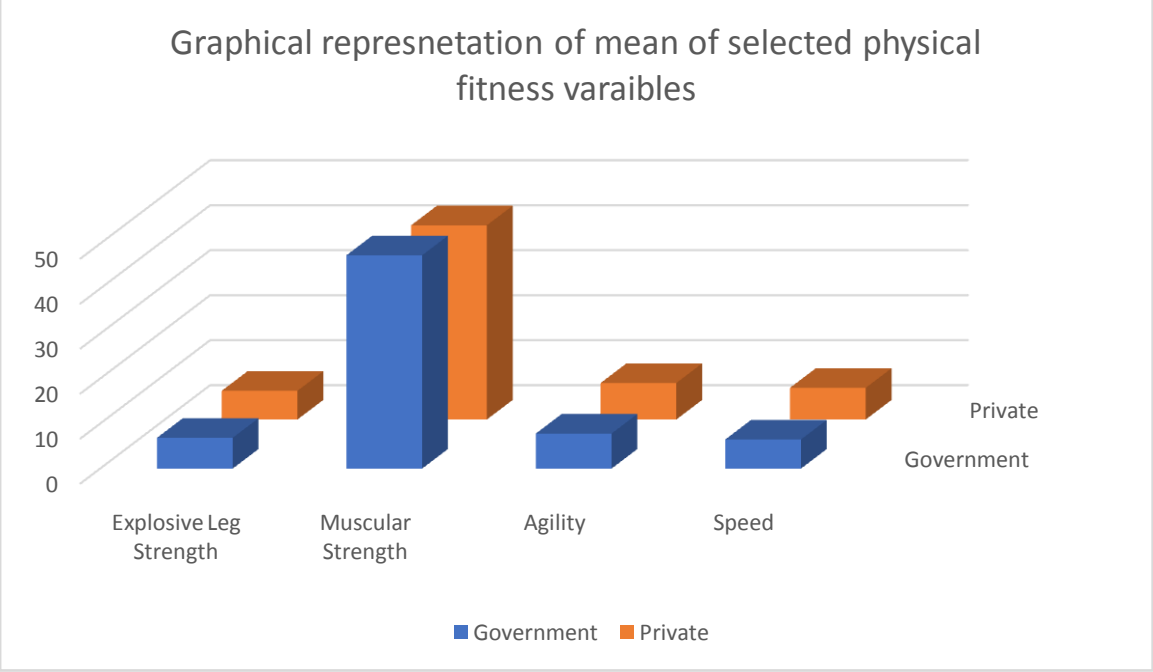
The results indicate that there was a significant difference in explosive leg strength between government and private school going boys t (48) = 3.006, P = 0.004. That is the average score of government (M=6.84, SD=0.49) was statistically different from that of private (M=6.38, SD=0.57). It is evident from table that in explosive leg strength, a t value of 3.006 was obtained and the probability in the significance was P=0.004, which is less than 0.05. Thus, it could be concluded that there was a significant difference in explosive leg

strength between government and private school going boys.

The results indicate that there was a significant difference in muscular strength between government and private school going boys t (48) = 3.22, P = 0.002. That is the average score of government (M=47.41, SD=6.71 was statistically different from that of private (M=43.18, SD=2.20). It is evident from table that in muscular strength, a t value of 3.22 was obtained and the probability in the significance was P=0.002, which is less than 0.05. Thus, it could be concluded that there was a significant difference in muscular strength between government and private school going boys.

The results indicate that there was a significant difference in agility between government and private school going boys t (48) = 4.09, P = 0.001. That is the average score of government (M=7.78, SD=0.37 was statistically different from that of private (M=8.11, SD=0.14). It is evident from table that in agility, a t value of 4.09 was obtained and the probability in the significance was P=0.001, which is less than 0.01. Thus, it could be concluded that there was a significant difference in agility between government and private school going boys.

The results indicate that there was a significant difference in speed between government and private school going boys t (48) = 3.67, P = 0.001. That is the average score of government (M=6.46, SD=0.52 was statistically different from that of private (M=7.04, SD=0.59). It is evident from table that in speed, a t value of 3.67 was obtained and the probability in the significance was P=0.001, which is less than 0.01. Thus, it could be concluded that there was a significant difference in speed between government and private school going boys.



## Discussion

There was a significant difference in explosive leg strength, muscular strength, agility and speed between government and private school going boys. **Singh et al., 2017** revealed that the Government school boys were better on some selected variables viz. coordination, balance, handgrip strength and % body fat. In India, the majority of students enrolled in government schools are usually from low socio-economic status and students with higher socio-economic status usually go to private schools. The cause behind the findings of this study might be the sedentary lifestyle habits prevailed among higher socio-economic status children. On the other hand, children with less socio-economic status are likely to expose to those works which demand more physical activity. **Kumar (2019)** study was to ascertain to differences in physical fitness of school going students in private and government schools. In speed, Agility, balance and flexibility government students found better than private students, whereas, no difference was found in reaction time and explosive power.

## Conclusion

The following conclusions are drawn:

1. There was a significant difference in explosive leg strength between government and private school going boys. Thus it is concluded that in government school going boys explosive leg strength is significantly more that private school going boys.
2. There was a significant difference in muscular strength between government and private school going boys. Thus it is concluded that in government school going boys muscular strength is significantly more that private school going boys.
3. There was a significant difference in agility between government and private school going boys. Thus it is concluded that in government school going boy's agility is significantly more that private school going boys.
4. There was a significant difference in speed between government and private school going boys. Thus it is concluded that in government school going boys speed is significantly more that private school going boys.

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