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COMPARATIVE STUDY ON AEROBIC ENDURANCE BETWEEN GOVERNMENT AND PRIVATE SCHOOL STUDENTS OF LUDHIANA

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ABSTRACT:

The present study was designed to assess aerobic endurance between government and private school students of Ludhiana. Total three hundred (N=300) male subjects, which includes one hundred fifty ($n_1=150$) government school students and one hundred fifty ($n_2=150$) private school students, who were studying in different government and private schools of Ludhiana, during the session 2021-22. The simple random sampling technique was used to attain the objective of the study. The age of the subjects ranged between 15 to 18 years. The 12-minute run & walk test was used to measure the aerobic endurance of subjects. t-test was employed to assess aerobic endurance between government and private school students of Ludhiana. The level of significance was set at 0.05. Results revealed significant differences between government and private school students of Ludhiana.

KEYWORDS: Aerobic Endurance, Government, Private and Students

INTRODUCTION

Physical fitness has been considered as one of the most important aspects of human existence. A sound body and an active mind are interrelated. In other words physical fitness can be defined as that state of body, through which a person can do work for a longer duration without undue fatigue. Fitness is the state which characterizes the degree to which a person is able to function efficiently. Implies the ability of each person to live most effectively with his potential. Ability to function depends upon the physical, mental, emotional, and moral components of fitness: all of which are related to another and are mutually interdependent.

Endurance is the ability to do sports movements, with the desired quality and speed, under conditions of fatigue (Singh, 1991). Aerobic Endurance is the amount of oxygen intake during exercise. During Aerobic work, the body is working at a level that demands oxygen which acts as fuel for the body's intake. Aerobic capacity is the capacity of large skeletal muscle groups to adapt to work by using energy

obtained as a result of aerobic metabolism. Aerobic capacity is used as a physiological criterion to determine the exercise capacity of the athletes. Physiologically, maximum endurance is articulated as the maximum aerobic capacity of the individual. In other words, it is the total amount of oxygen that can be used by an individual during an exercise of maximal stress (Tamer, 1996).

Physical fitness means maintaining the various systems of the body healthily and making them function effectively. The fit person should engage in these physical activities without unreasonable fatigue” (William, 1994). Health is considered as the most precious asset of humankind. Physical exercise plays an important role to maintain our health and wellness. It also helps to maintain our healthy body weight, healthy bones, joints and muscles and encourages keeping fit our different types of body systems i.e. circulatory, respiratory etc. Physical activity or yogic exercises builds strength and endurance for us. Keeping the importance of aerobic endurance in mind for the games in question, the investigators therefore, designed the present study to assess the aerobic endurance between government and private school students of ludhiana.

OBJECTIVES OF THE STUDY

- To assess significant differences with regard to aerobic endurance between government and private school students of ludhiana.

HYPOTHESIS OF THE STUDY

- It was hypothesized that there would be no significant difference on aerobic endurance between government and private school students of ludhiana.

SELECTION OF VARIABLES:

- Independent variables: Government and Private School Students (Boys).
- Dependent variable: Aerobic endurance.

METHODOLOGY:

The sample consists of three hundred (N=300) subjects, who were studying in government and private school of ludhiana, during the session 2021-22. It includes one hundred fifty ($n_1=150$) male students of government school and one hundred fifty ($n_2=150$) male students of private school. The simple random sampling technique was used to attain the objective of the study. The age of the subjects ranged between 15 to 18 years. The 12-Minute run-walk was applied to assess the aerobic endurance between government and private school students of ludhiana. t- test was employed to assess significant difference on the variable aerobic endurance between government and private school students of ludhiana. The level of significance was set at 0.05 to test the hypothesis.

RESULT:

Table-1: Descriptive Statistics Analysis of 12- Minute run/walk of Male Government and Private School students of ludhiana

Variable	Group	N	Mean	Std.Deviation	Std.Error Mean
12-Minute Run/Walk	Government school	150	2260.20	311.081	25.400
12-Minute Run/Walk	Private school	150	2103.20	314.946	25.715

It can be seen from the table-1: That the Mean, S.D and S.E scores of male Government school students are 2260.20± 311.081 and 25.400 respectively. Moving to the Private school male students the Mean, S.D and S.E scores are 2103.20±314.946 and 25.715. Mean value of private school student is less than government school students, therefore private school students have low cardiorespiratory endurance as compared to Government school students.

Table-2:T-test Description of Government School Students and Private School Students value of 12-Minute Run/Walk

Variable	Group	df	T-Value	Sig.
12-Minute Run/Walk	Government school & Private school	298	4.34	0.00

***Significant at 0.05**

It has been observed from table-2: The t-test value of 12 Minute run/walk test of government school students and private school Students. As shown in the table, government school students had significantly higher endurance (t=4.34, P<0.05) than the private school students. There was a significant difference in the Health Related Physical Fitness variable 12-Minute run/walk test between government school students and private school Students.

DISCUSSION OF FINDINGS:

It has been observed from (tables-1 to 2) that significant differences have been found between government school students and private school students on the variable of 12 Minute run/walk test. While calculating the mean values of both the groups, it has been observed that government school students had demonstrated significantly better on the variable 12 Minute run/walk as compared to their counterpart private school students. The outcome of the results may be due to the fact that government school students have better aerobic endurance. **Kumar and Ahlawat (2018)** reported that government school students demonstrated significantly better endurance than private school students. **Gill et al. (2010)** had conducted a study to compare physical fitness components namely speed, strength, endurance and flexibility between female students belonging to rural and urban areas. The result shows that rural female students were found to be superior in agility. **Thakur et al. (2012)** had carried out a study to compare the physical fitness components between table tennis and badminton male players. The results found noticeable differences in speed, and agility, whereas there was no difference with reference to their explosive strength, endurance and flexibility components.

CONCLUSION:

It is concluded that significant differences have been found between government school students and private school students with regard to the variable aerobic endurance. While calculating the mean values of both the groups, it has been observed that government school students had demonstrated significantly better on the variable 12 Minute run/walk as compared to their counterpart private school students.

REFERENCE:

AAHPER.(1965). AAHPER Youth Fitness Test Manual Revised; Washington, D.C., American Alliance for Health, Physical Education, and Recreation. P.79.

- Dhanda, R.S. (2018). Comparative Analysis of Selected Physical Fitness Components Women Judo Players of Weight Categories. *International Journal of Physiology, Nutrition and Physical Education*, 3(2), 725-727.
- Gill, M., Deol, N.S., & Kaur, R. (2010). Components of Rural and Urban Female Student of Punjabi University Patiala, *Journal Anthropologist*, 12 (1), 17-21.
- Hunsicker, P. (1976). American Alliance for Health, Physical Education and Recreation. AAHPER Publication-Sales, Washington D.C.20036, U.S.A.
- Kamlesh, M. L. (1990). Manual of Sports Achievement Motivation Test. *NIS Scientific Journal*, 13 (3).28-39
- Kansal, D. K. (1996). *Test and Measurements in Sports and Physical Education*. New Delhi: D.V.S. Publications
- Kolkur, S., & Malipatil, R. (2019). Comparison of Motor Fitness Components between Judo and Wrestling male players. *International Journal of Physiology, Nutrition and Physical Education*, 4(1), 618-619.
- Kumar, S., & Ahlawat, R.P. (2018). Comparative study among physical fitness variables between the Government school boys and private school boys. *International Journal of Physiology, Nutrition and Physical Education*. 3(2), 1094-1095.
- Singh, H. (1991). *Science of Sports Training*. New Delhi: D.V.S
- Tamer K. (1996) The relationship between aerobic fitness and recovery from high intensity intermittent exercise. *Sport Med* 31:1-11.
- Thakur, V., Kumar, S., Chaurasia, S., & Singh, P.K. (2012). Comparative Study of Physical Fitness Components of Tennis and Badminton Male Players from Maharishi Markandeshwar University, Mullana. *International Journal of Sports Science and Fitness*, 2(1), 154-162.
- William, (1994). *Fitness for College and Life*. 4th ed, Philadelphia: Mosby
- Yobu, A. (2010). *Test, Measurement and Evaluation in Physical Education and Sports*. New Delhi: Friends Publications.