

Comparison of Physical Fitness among Government, Semi Government and Public School Children

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Abstract

According to Dannis Law's(1969) "The long and difficult road from a budding schoolboy star to a top-line performer is littered with pitfalls, the paths are varied. Some players find it easy with no set-backs, others have many obstacles to overcome; for some the 'light' of the star emerges in their early days and only needs kindling by the development of their talent, but for others the road to success is a difficult process which may suddenly appear through the most unusual circumstances"

Objective: To determine the level of fitness in government, semi government and public school children. Secondly, to compare their level fitness in relation to type of school.

Methods: a total of 60 randomly selected students, (20-male student from each group). Students from government, semi government and private schools of UP were selected as the subjects for the study.

Results: no significant difference was found in case of Speed , 600 mts run/walk, Height, Weight, Hand reaction time, Leg reaction time in the school children's of Government, semi-government and private schools as level of significance was greater than the 0.05 level of acceptance.

Conclusions: The physical fitness of the schools children's was similar in nature.

KEYWORDS: Physical fitness, speed etc

Introduction

An important phase of the physical education profession is applied to testing of an individual's ability to meet the demands of varying types of tasks. An equally important application of testing the programme is made by sports scientists and sports trainers in order to assess physical abilities in terms of one's physical, psychological and physiological limits, so as to provide each sportsperson with individualized and properly guided programme schedules for effective training programmes. Such an effort automatically ensures result oriented training plans.

The concept of physical fitness, in general athletic terms, means the capability of the individual to meet the varied physical and physiological demands made by a sporting activity, without reducing the person to an excessively fatigued state. Such a state would be one in which he/she can no longer perform the skills of the activity accurately and successfully(**Bob Davis, 2000**).

The world of training methodology has crossed many milestones as a result of different types of researches in general and their application to the sports development in particular. In the modern scientific age, athletes are being trained by highly sophisticated means for better achievement in their concerned sports. They are being exposed to the exercises and training methods which have proved beneficial for achieving higher standards. Much progress has been made in the recent years in the

acquisition of knowledge about training means and techniques of sports skills. In sport training specialized exercises are being prescribed for the fullest and optimum development for a particular game (**Patel, 1980**)

Due to involvement of numerous agencies like state departments of Physical Education and Sports, military personnel, colleges and universities, multiple terminology of physical fitness, motor fitness, motor ability, general and sports specific physical fitness came into existence where many items appeared in both physical fitness and motor abilities test batteries. In the earliest test batteries the components of motor ability or those of physical fitness were selected arbitrarily. However, during 1950 these components were selected more scientifically through factor analysis whereby the principal components are factored out or selected from a matrix of inter-correlation so as to eliminated the repetition of items measuring the same components of fitness or motor ability.

Although Motor Fitness is most often used synonymously with the physical fitness by the coaches but, it is very important for the physical education students to understand the basic difference between physical fitness and motor fitness. Physical fitness is used to denote the five basic fitness components, i.e muscular strength, muscular endurance, cardiovascular endurance, freedom from obesity and flexibility where as, skill related physical fitness is more comprehensive term which include all the ten fitness components including additional five motor components, ie., power, speed, agility, balance and reaction time which are important mainly for success in sports. In other words, the researchers have already mentioned the six components of physical fitness which come under the AAHPER Youth Fitness Test and that are enlisted below: Muscular Strength, Muscular Endurance, Speed, Agility, Explosive Strength, Cardiovascular Endurance.

In today's techno-scientific age the world has completely changed in all aspects due to discovery and research. Thus, in the field of games and sports also there has been a great change with the help of scientific training and coaching. The athletes are being trained on scientific guidelines with highly sophisticated means, for better achievement in their concerned sports enabling the coaches to get optimum performance with minimum expenditure of energy and time. They are being exposed to the exercise training the benefit for achieving the higher standards. Transfer of technique from one place to another and the increased publicity to sports events inspire and make today's athlete more efficient to reach newer heights (**Bhalla, 1982**).

Thus an attempt has been made to compare the motor fitness characteristics among government, semi government and public school children. The study may help to evaluate the fitness administered to students of government, semi government and private schools. The findings of this study might lead to modify and construct the training programme according to the requirement for the children's aged fourteen to sixteen years. The study would pinpoint the progress/changes if any, in relation to training. The findings of the study could help the coaches and physical education teachers to select potential athletes players. The finding of the study may help experts to formulate training programme and lay importance to performance based on fitness factors.

Methods and Materials

The study was conducted on a total of 60 randomly selected students, (20-male student from each group). Students from government, semi government and private schools of UP were selected as the subjects for the study.

At the beginning, the investigator gathered all the subjects and explained the purpose of the present study to them. Necessary instructions were passed on to the subject before the administration of each test. Confidentiality of response was guaranteed. The required data of physical fitness was collected during the course of six days.

The criterion measures chosen were: Speed was measured by 50 m dash. The score was recorded to the nearest tenth of a second. Cardio vascular endurance was measured by the 600m run/walk and the score was recorded to the nearest one tenth of a second. Height measurement was recorded upto 1/10th of a centimeter. Weight was measured by weighing machine and recorded accurately in kilogram. Hand reaction time was measured by using Nelson Hand Reaction Time test and scores were recorded in sec. Foot reaction time was measured by using Nelson Foot Reaction Time test and the scores were recorded in sec.

For finding out the significance of difference of the mean among the various type of schools (government , semi government and private)analysis of variance ‘F ratio’ was applied, which was followed by LSD test for post hoc comparisons to determine the significance of difference between paired means.

Results and Discussions

Table No. 1 : Descriptive Statistics of Physical Fitness variables

Variables	Type of School	Mean	Std. Deviation
SPEED	<i>Government</i>	7.06;	0.61201,
	<i>Semi Government</i>	7.2995;	0.51218,
	<i>Private</i>	7.313;	0.66248,
	<i>Total</i>	7.2242;	0.60014,
600 MTS RUN/WALK	<i>Government</i>	1.8395;	0.39308.
	<i>Semi Government</i>	2.3995;	0.10855,
	<i>Private</i>	5.579;	9.19656,
	<i>Total</i>	3.2727;	5.4816.
HEIGHT	<i>Government</i>	1.593;	0.0593,
	<i>Semi Government</i>	1.595;	0.05605,
	<i>Private</i>	1.5825;	0.05428,
	<i>Total</i>	1.5902;	0.05589.
WEIGHT	<i>Government</i>	53.635;	3.691,
	<i>Semi Government</i>	54.085;	3.76036,
	<i>Private</i>	54.165;	3.92968,
	<i>Total</i>	53.9617;	3.73754.
HAND REACTION TIME	<i>Government</i>	0.157;	0.01559,
	<i>Semi Government</i>	0.1595;	0.01538,
	<i>Private</i>	0.1555;	0.01877,
	<i>Total</i>	0.1573;	0.01645.
LEG REACTION TIME	<i>Government</i>	0.3215;	0.03964,
	<i>Semi Government</i>	0.3195;	0.04273,

	Private	0.3285;	0.03977,
	Total	0.3232;	0.04023.

The above table reveals that the mean and standard deviation of **SPEED** Government 7.06; 0.61201, *Semi Government* 7.2995; 0.51218, *Private* 7.313; 0.66248, *Total* 7.2242; 0.60014, **600 MTS RUN/WALK** Government 1.8395; 0.39308. *Semi government* 2.3995; 0.10855, *Private* 5.579; 9.19656, *Total* 3.2727; 5.4816. **HEIGHT** Government 1.593; 0.0593, *Semi government* 1.595; 0.05605, *Private* 1.5825; 0.05428, *Total* 1.5902; 0.05589. **WEIGHT** Government 53.635; 3.691, *Semi government* 54.085; 3.76036, *Private* 54.165; 3.92968, *Total* 53.9617; 3.73754. **HAND REACTION TIME** Government 0.157; 0.01559, *Semi Government* 0.1595; 0.01538, *Private* 0.1555; 0.01877, *Total* 0.1573; 0.01645. **LEG REACTION TIME** Government 0.3215; 0.03964, *Semi Government* 0.3195; 0.04273, *Private* 0.3285; 0.03977, *Total* 0.3232; 0.04023 respectively.

Table No. 2: Mean Comparison (Analysis of Variance) among the motor fitness variables in the schools children’s of different type of school

		Sum of Squares	df	Mean Square	F	Sig.
Speed	Between Groups	.810	2	.405	1.130	.330
	Within Groups	20.440	57	.359		
	Total	21.250	59			
600 mts run/walk	Between Groups	162.711	2	81.356	2.880	.064
	Within Groups	1610.119	57	28.248		
	Total	1772.830	59			
Height	Between Groups	.002	2	.001	.282	.756
	Within Groups	.182	57	.003		
	Total	.184	59			
Weight	Between Groups	3.265	2	1.633	.113	.893
	Within Groups	820.917	57	14.402		
	Total	824.182	59			
Hand reaction time	Between Groups	.000	2	.000	.294	.746
	Within Groups	.016	57	.000		
	Total	.016	59			
Leg reaction time	Between Groups	.001	2	.000	.269	.765
	Within Groups	.095	57	.002		
	Total	.095	59			

The above table reveals that no significant difference was found in case of Speed , 600 mts run/walk, Height, Weight, Hand reaction time, Leg reaction time in the school children’s of Government, semi-government and private schools as level of significance was greater than the 0.05 level of acceptance.

Discussion

Troester Jr.(1957) states that physical fitness includes those qualities which will permit an individual to perform life activities involving speed, strength, agility, power and endurance and to engage in various kinds of physical activities required of modern day living including sports and athletics.

Uppal(1990) define physical fitness as “The capacity to carryout reasonably well various forms of physical activities without being unduly tired and includes qualities important to the individual’s health and well being.”

Bucher has defined physical fitness as the state which characterizes the degree to which the person is able to function, implying ability to perform, resisting fatigue, performing with a high degree of motor ability and being able to muscular stress. A pragmatic definition of Nixon states that: “Physical Fitness refers to the organic capacity of the individual to perform the normal task of daily living without undue tiredness or fatigue having reserve of strength and energy available to meet satisfactory, an emergency demands suddenly placed upon him.”

Hunter(1979) elaborately defines physical fitness as “Work capacity, the total functional capacity to perform some specified task requiring muscular effort ; considers the individual involved, task to be performed, quality and intensity of effort; one aspect of total fitness; involves sound organic development, motor skill, and the capacity to perform physical work with biological efficiency”. Such insights of the time, provide material for the evolution of discipline. Physical fitness is in effect, the involvement of muscular movement or a series of movements in coordination with the cardio respiratory system of an individual to perform any kind of task. Such performance is also governed by numerous inherent determinants. Such inherent determinants, on being isolated at various times, provide for the growth of the discipline of physical fitness, consequent to which the performance of an individual is deemed to be enhanced and appreciated.

Physical fitness tends to vary from one individual to another. Apparently, it varies in accordance with the nature of a person, depending on whether he is sedentary or dynamic. As we see individual differences in characteristics of psychological studies, a similar evaluation could be said to hold good with respect to physical fitness also. There may be some generalized facts of individual fitness in a group, but each individual will differ in some or other way as far as physical fitness is concerned. For example, strength is a common factor in everyone, the level of strength one possesses is of the specific quality of an individual.

In the present study, no significant difference was found in the physical fitness of the children’s studying in different type of schools. This may be attributed to the fact, that the physical fitness programme running in all the type of schools are similar in nature. Further, the age groups was similar in nature which may be the other factor of no significant difference.

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