

A Comparative Study of Physical Fitness (Strength, Cardiovascular Endurance) of International and SSC School Boys of Standard Eighth to Tenth

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Abstract

In the present study, an attempt has been made to compare physical fitness components namely strength, cardio vascular endurance, between international and SSC school boys of standard eight to tenth. The study was carried out on 100 male students, 50 boys of International school and 50 boys of SSC School. The data was collected as explosive strength and cardio vascular endurance by application of tests like standing broad jump test, and 12 minutes run and walk test.etc. The data was analyzed and compared with the help of statistical procedures in which arithmetic mean, standard deviation (S.D.), standard error of mean (SEM), t-test were employed. SSC School boys were superior students were found to be superior in explosive strength. International school boys on the other hand, were found to be superior in cardiovascular endurance.

Introduction

Concept of physical education is as old as human kind. Throughout the history of mankind physical fitness has been considered an essential element of everyday life. The ancient people were mainly dependent upon their individual strength, vigour, vitality for physical survival. Over the past four decades, there has been an increase in the prevalence of over-weight and physical fitness deterioration in adult across all genders, ages and racial/ethnic groups (Ichinohe et al.2004). The negative effects of graded physical fitness on both the individual and society are serious and multi-dimensional. It can cause many risk factors to health including coronary heart disease, certain forms of cancer, diabetes, osteoarthritis, respiratory problems and is associated with increases in all cause mortality (Cataldo 1999). Low level of physical activity and cardio-respiratory fitness are both associated with higher risk of all cause and disease specific mortality (Thune et al. 1998). The present study was designed by keeping the following objectives in the mind.

- To compare the level of Physical fitness (explosive strength) of International and SSC school boys of standard eight to tenth.
- To compare the level of Physical fitness (Cardio vascular endurance) of International and SSC school boys of standard eight to tenth.
- To understand the status of physical fitness of International and SSC school boys of standard eight to tenth.
- To suggest remedies to improve the physical status of students.
- To give understanding to physical education teachers and coaches so as which sports to be given to which students.
- To get the conclusion that which school is developing well and which part is not doing equal development.

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If the students are made fit it will surely act as a prevention of diseases and promote healthy lifestyle.

Hypothesis

Null hypothesis was sought to be tested were:

H₁: There will be no significant difference in strength of the boys of international and SSC board school

H₂: There will be no significant difference in Cardio-vascular endurance of the boys of international and SSC board school.

Methodology

Having specified the problem listing the objectives, formulation of the hypothesis and providing review of related literature in the previous chapters, the method and procedure adopted by the investigator is described herein.

Research procedure is a strategy, which is based on sample technique. It includes sample tools for collection of data and statistical techniques for reporting the findings.

The present study consists of selected students of selected International school and SSC schools in Mumbai, of male students and are ranging from standard from eight to tenth. The students of school having IGCSE board (international general certification) are considered as International school sample and school with secondary school certificate considered as SSC School Sample. From Each Board School 100-100 Boys Were Selected As Sample.

Statistical Technique

To compare the study of physical fitness (strength, cardio-vascular endurance) of International and SSC school boys of standard eighth to tenth t-test was applied. Further the level of significance was set at 0.05 level of confidence.

$$MEAN = \frac{\sum fx}{N}$$

$$t = \frac{M_1 - M_2}{SED}$$

Comparison of Explosive Strength of International School and SSC School Boys of Standard Eighth To Tenth

School	N	MEAN	SD	T	Mean difference
International	100	180.86	13.838	-.430	-850
SSC	100	181.71	14.119		

*Significance at 0.05 Level, Where df = 198, 't' = 1.97

Comparison of Cardio Vascular Endurance of International and SSC School Boys of Standard Eighth to Tenth

SCHOOL	NUMBER	MEAN	SD	T	Mean difference
SSC	100	2029.10	381.004	-.458	25-900

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INTERNATIONAL	100	2003.20	417.273		
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*Significance at 0.05 Level Where df = 198, 't' =1.97

Result and Discussion

- The Main Findings of The Present Study is that, There is No Significant Difference Between Explosive Strength Of International school boys and SSC Board School Boys Of Standard Eighth – Tenth. The Differences were Significant at 0.05 Level.
- The International School Boys and SSC board School Boys Comparison of Explosive Strength Performance Shows No Significant Difference.
- Therefore the First Hypothesis That, There Will Be No Difference In Strength Of The Boys Of International And SSC Board School Is Accepted.
- Significant Difference was not Found Between Cardio Vascular Endurance of International And SSC Board School Boys Of Standard Eighth – Tenth. The Differences Were Significant At 0.05 Level.
- The International School Boys and SSC Board School Comparison of Cardio Vascular Endurance Performance Shows No Significant Difference.
- Therefore the Second Hypothesis That, There Will Be No Difference In Cardio-Vascular Endurance Of The Boys Of International And SSC Board School Is Accepted.

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