

## RELATIONSHIP BETWEEN PHYSICAL FITNESS AND ACADEMIC ACHIEVEMENT OF SENIOR SECONDARY STUDENTS

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**Abstract**

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*The present study was conducted to investigate the relationship between physical fitness and academic achievements. For this, Government Senior Secondary School of Directorate of Education, G.N.C.T.Delhi, comprised the sample of the study. 828 students from 27 schools constituted the sample of the study. (AAHPERD) youth fitness test has been used for measuring the physical fitness. Class-X CBSE examination was taken as their academic achievement. The study concluded that there is no relationship between physical fitness and academic achievement except good physical fitness category students. Most of the students (72%) were found average in physical fitness.*

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Physical fitness is a basic requirement for good programmes in various achievements. It should not be forgotten that man is an individual unit, wherein all parts act and react as an integrated whole i.e. we cannot possibly divide him into different components. Numerous researchers in this connection have related physical traits to the total effectiveness of the individual physically, mentally, psychologically and socially. Medical authorities have universally emphasized that in order to maintain a sound mind throughout one's life, physical activity is a must. Nutritionists advice exercise for weight control, psychologists insist that strong person tend to be socially and psychologically well adjusted, while weaker ones show tendencies towards social deficiency, inferiority complex and other symptoms of such mal – adjustments. Physical educators have shown the totality of the individual, thus justifying the concept of organic integrity, which again is an entirely complex matter as we know that gross components of the physical, mental and psychological are not only integrated in innumerable combinations but separately as well as in combinations are affected fundamentally by a number of their influences.

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The essential organic ingredients of physical fitness include muscular power, endurance, strengths, flexibility, cardiovascular fitness and neuromuscular co-ordination. The human body is built for movement and vigorous activity and not for rest. It functions more efficiently, when it is active. Physical fitness increased academic performance.

### **Objectives of the Study**

1. To study present status of physical fitness of the students. Classifying them into three categories namely, students, with good, average and poor physical fitness.
2. To find out the relationship between physical fitness and academic achievements.
3. To find out the relationship between good, average and poor physical fitness category students and academic achievements.

### **Sample of the Study**

Student studying in class XI in the Government Senior Secondary School of Directorate of Education, Govt. of National Capital Territory Delhi, comprised the population of the study. 27 schools were included in the sample of the study. Thus, 828 students from 27 schools constituted the sample of the study.

### **Tool Used**

American Association for Health Physical Education, Recreation and Dance (AAHPERD) youth fitness test has been used for measuring the physical fitness. The individual marks obtained in class – X, C.B.S.E. examination were taken as their academic achievement.

**Table 1: Classification of Students in Terms of Physical Fitness I.E. Good, Average and Poor Categories**

1	2	3	4	5	6	7	8
Total No. of Students	Mean Physical Fitness Score	Standard Deviation (Physical Fitness Score)	Mean Plus (+) Standard deviation i.e.298.23 +25.38	Good Physical Fitness (Case above 323.61)	Mean Minus (-) Standard Deviation i.e.298.23 -25.38	Poor Physical fitness (Cases below 272.84)	Average Physical fitness (cases between M+SD &M-SD) i.e.323.61 - 272.84
828	298.23	25.38	323.61	121 (14.61%)	272.84	113 (13.65%)	594 (71.74%)

Table-1 shows the classification of students in terms of good, average and poor physical fitness categories of the total, 14.61% (121) are good, 13.64% (113) are poor and 71.73% (594) are average in physical fitness.

**Table 2: Relationship between Physical Fitness and Academic Achievement of the Total Students**

S. No	Physical Fitness	N	'r'	Level of significance
1	Total Physical Fitness	828	.025	INS.
2	Good Category Physical Fitness	121	.087**	SIG
3	Average Category Physical Fitness	594	.023	INS
4	Poor Category Physical Fitness	113	.056	INS

\* Significant at .05 level. \*\* Significant at .01 level.

Table-2 displays relationship between physical fitness and academic achievement of students belonging to total sample as well as good, average & poor categories students. It shows significant 'r' value of **total physical fitness** for N of 828 which should be .062 and .081 at .05 level and .01 level of significance respectively. It shows that the obtained 'r' value of total physical fitness is insignificant at .05 level. There is insignificant relationship between physical fitness with academic achievement of students.

Table displays relationship between physical fitness and academic achievement of students belonging to **good physical fitness category**. In order to be significant, 'r' value of physical fitness for N of 121 should be .062 and .081 at .05 level and .01 level of significance

respectively. It shows that the obtained 'r' value for physical fitness .86 is significant at .01 level. This indicates that the students belonging to good physical fitness category have significant relationship between physical fitness with academic achievement score.

Table displays relationship between physical fitness and academic achievement of students belonging to **average physical fitness category**. In order to be significant 'r' value of physical fitness for N of 594 which should be .062 and .081 at .05 level and .01 level of significance respectively. It shows that the obtained 'r' value for physical fitness is insignificant. This indicates that there is insignificant relationship between physical fitness with academic achievement of students belonging to average category.

Table displays relationship between physical fitness and academic achievement of students belonging to **poor physical fitness category**. In order to be significant 'r' value of physical fitness for N of 113 which should be .062 and .081 at .05 level and .01 level of significance respectively. It shows that the obtained 'r' value for physical fitness is insignificant. This indicates that there is insignificant relationship between physical fitness and academic achievement of students belonging to poor category.

**Discussion:** In order to validate findings displayed in table - 2 the researcher computed correlation between physical fitness and academic achievements of the students. In preceding pages this relationship has been presented in table - 2 It is obvious from the result drawn, that physical fitness, except good physical fitness category, is not related with academic achievements of the students. Average and poor physical fitness category students can have academic achievements score as well as students of good in physical fitness category. But in only one case physical fitness of high order shows positive correlation with academic achievements. Table -1 reveals that students showing superior physical fitness achieve higher score in school subjects. It means superior / good physical fitness category student enters in the phenomena of academic achievements.

**Conclusion:**

1. It was found that most of the student's physical fitness was average i.e. 72%.
2. It was found that good physical fitness category students were related with academic achievement.
3. It was found that average and poor physical fitness category students were not related with academic achievement.

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