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## **How Physical Health Affects the Performance of the Students - An Experimental Study**

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### **Abstract**

The study was conducted to explain how physical health affects the performance of the students at secondary level in district Jhelum. The study would help the heads of the secondary schools to schedule their programs for providing physical education to the students, so that they can achieve good results in the academic achievements of the students. The study is also beneficial for the future researchers who wish to get good academic results from the students at the secondary level and also can remove the hurdles that affect the improvement of the quality education.

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All students of government secondary schools of Punjab constituted the population of the study. The study was delimited to the students of government secondary schools in district Jhelum. The study was further delimited to the students of 10<sup>th</sup> class of government comprehensive boys' high school Jhelum. Forty students of 10<sup>th</sup> class were taken as sample of the study. Pre-test and Post-test were used as instruments of the study. Pre-test was used to make the two groups i.e., experimental and control group for finding the effect of physical health on the performance of the 10<sup>th</sup> class students. Data obtained from the Pre-test and Post-test was then presented in tabular form for the purpose of interpretation. Data was manipulated with the help of appropriate statistical tools like; means, standard deviations, and difference of the means was computed for each group. On the basis of the results obtained from the pre-test and the post-test, problems were highlighted and appropriate suggestions were given to meet the future challenges.

**Key Points:** Physical, Achievements, Comprehensive, Enhancement, Quality

## INTRODUCTION

Research on teaching physical education has focused on the relationship of class organization and student engagement time-variables with achievement. Class time was described in three measures: a) allocated time; the time the teacher plans for students to be engaged in motor activities, b) engaged time; the time a student is actually physically engaged in the activities, and c) academic learning time (ALT); the portion of engaged time a student is involved in motor activity at an appropriate success rate (Parker, 1989). The lost time among the three measures is defined 'funnel effect' and reflects 'how' the teacher organizes the lesson time and designs appropriate activities for the students (Siedentop, 1991).

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Teacher and student behavior is documented through systematic observation, which involves an observation system to categorize behaviors, and requires direct observation of classes, usually by videotaping (Rink, 1998). Descriptive studies that took place in '70s and '80s concluded that allocated time fluctuated between 50-80% of the lesson time, while only in half of this time students were motor engaged. The remaining class time was spent on management and transition activities or on waiting to participate. ALT fluctuated between 10- 34% that is considered very low (i.e., Cousineau & Luke, 1990; Silverman, Devillier & Ramirez, 1991).

Evidence supporting the association between physical activity and enhanced academic performance is strengthened by related research that found higher levels of physical fitness to be linked with improved academic performance among children and teens. For example two large national studies in Australia<sup>22</sup> and Korea, <sup>28</sup> along with two smaller studies conducted in the U.S., <sup>29</sup>, <sup>30</sup> found physical fitness scores to be significantly and positively related to academic performance. These studies included students from elementary through high school (Shephard RJ, 1996).

## **RESEARCH METHODOLOGY**

### **POPULATION**

All students of government secondary schools of Punjab constituted population of the study.

### **DELIMITATION**

The study was delimited to the students of government secondary schools in district Jhelum. The study was further delimited to the students of 10<sup>th</sup> class of Government Comprehensive Boys High School Jhelum.

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## SAMPLE

Forty students of 10<sup>th</sup> class were taken as sample of the study.

## RESEARCH INSTRUMENT

Pre-test and Post-test were used as instruments of the study.

## RESULTS AND DISCUSSION

Data was collected through pre-test and post test to find the effect of physical education on the academic performance of the students. It was observed that teachers also participated in different activities and motivated the students to participate with keen interest. Data obtained from the students and their interpretation is discussed below;

**Table 1: Significance of difference between the mean scores of experimental and control group on pre – test**

Group	N	Df	M	SD	SE <sub>D</sub>	t- Value
Experimental Group	20	19	59.2	12.56	1.63	-0.18 *
Control Group	20	19	59.5	12.52		

\* Not Significant

df=38

t-value at 0.05 level = 2.02

Table 1 indicates that the mean score of the pre-test of the experimental group was 59.2 and that of the control group was 59.5. The difference between two means was not statistically not significant at 0.05 level. Hence, the null hypothesis was accepted and both the groups could be treated as equal on the variable of pre-test.

**Table 2: Significance of difference between the mean scores of experimental group and control group on post-test**

Group	N	df	M	SD	SE <sub>D</sub>	t- value
Experimental Group	20	19	66.4	11.71	1.55	6.37*
Control Group	20	19	56.5	12.65		

\*Significant

df=38

t value at 0.05 = 2.02

Table 2 indicates that the mean score of the Experimental Group in Post-test was 66.4 and that of the control group was 56.5. The difference between two means was statistically significant at 0.05 levels. Hence, the null hypothesis was not accepted in the light of the t-value obtained which is greater than the, table value at 0.05 levels which is also significant at 0.05 levels. Thus both the groups treated as different on the variable of Post-test.

It means that there is great role of physical education into the academic achievements of the students. Thus the results support the studies of Orlander and Robertson (1973), that students showed their good performance if they were given physical education during their academic session.

## CONCLUSIONS

In the light of the analysis of data and findings of the study following conclusions were drawn;

1. Multiple assessment strategies and tools are not used (formative and summative) to monitor student learning.
2. Students are not able to articulate relevance and transfer of learning.
3. Students do not demonstrate creative and critical thinking skills.
4. Effective management strategies are not used into the schools.

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5. Allocated time is not used effectively and efficiently allowing students to remain focused on lesson and task expectations.
6. Students are not engaged in relevant, meaningful physical activity a minimum of 60% of the instructional time.

## RECOMMENDATIONS

Following recommendations are made from the study;

1. School should develop and implement a planned, sequential physical education curriculum that adheres to national standards for health and physical education.
2. Schools Department should hire a physical education coordinator District level to provide resources and physical education.
3. Government should offer regular professional development opportunities to physical education teachers which are specific to the field and require teachers to keep current on emerging technologies, model programs, and improved teaching methods.
4. Government should take care of requirements of students for fitness, cognitive, and affective assessment in physical education that are based on student improvement and knowledge gain.
5. District education officer should assure that programs have appropriate equipment and adequate indoor and outdoor facilities.

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