



# A Literature Survey Of Physical Education And Academic Performance Of School Students

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## Abstract

The present study is a review based study depicting the direct relationship between physical activities and academic performance of school students.

Keywords: PE, Physical activities, academic performance

## Introduction

Physical activities & Sports are generally promoted for their positive effect on children's physical health; regular participation in physical activity in childhood is associated with a decreased cardiovascular risk in youth and adulthood.[1] There are conversably increasing number of literatures suggesting that physical activity has beneficial effects on several mental health outcomes, including health-related quality of life and better mood states.[1] Vas (2006) stated that it is a pity for the country that even after more than fifty years of independence, we still find physical education as a co curricular activity in our schools. According to the Quality Council of India (2009) in their document "Quality in School Education" physical education was considered as the compulsory subject in the CBSE affiliated schools.

Hence it is clear that our national and state bodies and boards are actively engaged in making policies for physical and health education and its implementation.

## Background and History

The sports have travelled a long journey on its way to uplift the Indian society. India won in many events since independence in athletics and in other games with a sign of positivity. In our country, India, Government has worked hard with other Non Government organisations for the cause of sports. A lot is yet to be done in this field.

Bryner et al., (1999) affirmed that in promotion of sports in our country, the Indian Government and other regional sports agencies and organisations have set up and implemented various sports schemes. Various institutions and organisations have also been established to encourage the citizens of India for active participation in the sports activities.

In this regard, Vas (2006) stated that it is a pity for the country that even after more than fifty years of independence, we still find physical education as a cocurricular activity in our schools. A separate Sports Ministry was created in 1984 by the Union Government, but it failed to bring the required changes in the attitude and implementation of physical education. Physical education did not get much significance as it was required. There is no proper maintenance of programs and records in the schools. Also the progress shown by a student is not maintained in a better way for better results and achievement. Physical Education was recommended as a compulsory subject by our various commissions, but the situation did not improve. In our school curriculum four periods are allotted per week for physical education. It is imposed over the Physical Education Teacher (PET) to look after the other needs of a school other than his teaching and ground activities. It is also demanded from a single physical education teacher to conduct all sports activities of the entire school irrespective of the strength of the students.

It is a known fact that the schools are nurseries for nurturing sports' talent. But, it is also a fact that without giving proper attention the possibility of producing talented sportspersons is not possible.

### **Problem Statement**

More and more research is focusing on the link between physical activity in schools, including physical education, and school activities and academic performance in school-age children. To better understand these links, this review includes studies from a variety of physical activity contexts, including physical education in schools, recess, physical activity in the classroom (student nature and recess) and extracurricular physical activity. The purpose of this study is to synthesize the scientific literature that has examined the link between physical activity in schools, including physical education, and academic achievement, including indicators of cognitive skills and attitudes, learning behavior, and academic achievement.

### **Objective**

To describe the prospective relationship between physical activity and academic performance.

### **Methodology**

We screened the titles and abstracts for eligibility, rated the methodological quality of the studies. Prospective studies were identified from searches in PubMed, Google Scholar, ResearchGate and Academia from 2000 through 2023.

## Review of related literature

The largest correlations were seen for aerobic fitness and muscular endurance (ranging from 0.12 to 0.27, all  $p < 0.05$ ). Aerobic capacity and muscular endurance seem to positively affect academic achievement in middle school students. Bass, R. et al. (2013). Researchers have made great progress in testing PAs and academics over the past 5 years, but results have remained inconsistent. The majority of published articles report a positive association between PA and cognition, especially executive functions and academic achievement. Howie, et al. (2012). A growing body of literature has examined the association of Physical activity with cognition and learning outcomes in children. Among these studies, mixed results have emerged, showing that physical activity does not affect academic performance or it enhances it (Donnelly et al., 2016; Esteban-Cornejo, Tejero-Gonzalez, Sallis, & Veiga, 2015; Singh, Uijtdewilligen, Twisk, van Mechelen, & Chinapaw, 2012).

Different types of PA appear to have different effects, with the most benefit gained from longitudinal programmes incorporating aerobic exercise. Policymakers at the national, local, and school level should be made aware of the latest evidence and encouraged to make changes accordingly Barbosa et al. (2020). Sufficient PA may be a contributory factor of improved academic achievement and lower level of academic burden in Chinese children and adolescents. However, associations of PA with academic achievement and academic burden may be different across gender or school grade. Promoting PA among girls or middle school students may be a good approach to improve academic achievement and reduce academic burden. Zhang et al. (2022).

## Policy implications

Several policy implications emerge from this assessment:

- There is strong evidence that physical activity can improve academic performance (including grades and standardized test scores).
- The articles in this review suggest that physical activity can have an impact on cognitive skills, attitudes, and learning behaviors, all of which are important components for improving academic performance. . These include increased concentration and attention as well as better behavior in class.
- Increasing or maintaining physical education time can help and is unlikely to affect academic performance.

## Summary and discussion

Most of the studies in this review focused on participation in school physical education or physical education classes. While these activities can provide a general basis for a child's physical activity habits, they do not cover the full range of physical activities a child may engage in. High-quality studies using objective measures of physical activity.

## Conclusion

In conclusion, this study's results support evidence of a positive relationship of physical education or school-based physical activity with academic performance. However, we found evidence that youth participation in physical activity was positively associated with school performance. More high-quality research is needed on the dose-response relationship between physical activity and school performance and the explanatory mechanisms using reliable and validated measurement tools, accurately assess this relationship. While education to promote learning often takes place in sedentary environments, children spend their time sitting in classrooms receiving instruction. This traditional view contributes to the reduction of physical activity at school. However, because physical education and physical activity in schools can positively affect learning and academic achievement, it can also have a positive effect on many other activities important outcomes (e.g., health and quality of life, physical, social and emotional benefits), need to increase physical activity time at school. Increasing physical activity will help improve academic achievement and, of course, will be important in improving Children's physical activity levels, are important for health.

## References

1. Penedo FJ, Dahn JR. Exercise and well-being: a review of mental and physical health benefits associated with physical activity. *Curr Opin Psychiatry*. 2005; 18(2):189-193
2. Bass, R. W., Brown, D. D., Laurson, K. R., & Coleman, M. M. (2013). Physical fitness and academic performance in middle school students. *Acta paediatrica*, 102(8), 832-837.
3. Howie, E. K., & Pate, R. R. (2012). Physical activity and academic achievement in children: A historical perspective. *Journal of sport and health science*, 1(3), 160-169.
4. Donnelly, J. E., Hillman, C. H., Castelli, D., Etnier, J. L., Lee, S., Tomporowski, P., . . . Szabo-Reed, A. N. (2016). Physical activity, fitness, cognitive function, and academic achievement in children: a systematic review. *Medicine and Science in Sports and Exercise*, 48(6), 1197-1222.
5. Esteban-Cornejo, I., Tejero-Gonzalez, C. M., Sallis, J. F., & Veiga, O. L. (2015). Physical activity and cognition in adolescents: A systematic review. *Journal of Science and Medicine in Sport*, 18(5), 534-539
6. Singh, A., Uijtdewilligen, L., Twisk, J. W., van Mechelen, W., & Chinapaw, M. J. (2012). Physical activity and performance at school: a systematic review of the literature including a methodological quality assessment. *Archives of Pediatrics and Adolescent Medicine*, 166(1), 49-55
7. Barbosa, A., Whiting, S., Simmonds, P., Scotini Moreno, R., Mendes, R., & Breda, J. (2020). Physical activity and academic achievement: an umbrella review. *International Journal of Environmental Research and Public Health*, 17(16), 5972.
8. Zhang, D., Hong, J., Chen, S., & Liu, Y. (2022). Associations of physical activity with academic achievement and academic burden in Chinese children and adolescents: do gender and school grade matter?. *BMC Public Health*, 22(1), 1-11.