

## SPORTS PARTICIPATION AND ACADEMIC ACHIEVEMENT OF GOVERNMENT SCHOOLS BOYS IN BUNDELKHAND REGION – A LONGITUDINAL STUDY



Sachin Gupta  
Research Scholar, Karpagam University, Coimbatore.

### Short Profile

Sachin Gupta is a Research Scholar at Karpagam University, Coimbatore. He has completed B.P.E., M.P.E., M.Phil., UGC-NET. He has professional experience of 18 years.



### ABSTRACT:

The purpose of the study was to study the effect of sports participation on academic achievement of government schools boys of Bundelkhand region. The study was delimited to the 120 boys of 14 -17 years of age group who were studying at Government Schools in Bundelkhand Region of Uttar Pradesh, India. The subjects were from three groups i.e. one who were participating in individual sports, another who were participating in team sports and others who were not at all involved in any sports. To assess the academic achievements of the selected subjects, Academic Achievement verbal intelligence

test developed by Mr. Rk Ojha and K Ray Chowdhury was used. ANCOVA was employed in the study find the significant differences among the selected groups. Individual games group was found to be best as far as the academic achievements are concerned.

### KEYWORDS

*Academic Achievement , Sports Participation , physical activity.*

## INTRODUCTION:

The relationship between physical activity and academic achievement has been the subject of research and speculation for many decades. Positions taken by scholars on the influence of sport and activity participation on scholastic performance have varied from negative to neutral to positive. The negative side suggests that sport involvement is detrimental to academic performance for a variety of reasons, such as "energy drain," time taken away from studying, and sport becoming a primary focus instead of school work. Counter arguments to the above are that energy may be derived from being physically active and consequent improvement in fitness, that time away from the classroom and studying may be refreshing as a relief from boredom and time for mental diversion, and that sport involvement does not seem to affect the valuing of academic importance. Positive relationships between sport involvement and academic performance have been reported by Snyder and by Snyder and Spreitzer, while a link between physical education lessons/exercising/fitness and scholastic achievement was indicated by a number of researchers. The present study has been done to know the effect of sports participation on academic achievement of government schools boys in Bundelkhand region.

## METHODOLOGY

### Selection of subjects

The study was delimited to the 120 boys of 14 -17 years of age group who were studying at Government Schools in Bundelkhand Region of Uttar Pradesh, India.

Forty boys of individual games and sports (Group I) engaged in playing the activities, namely badminton, athletics, judo, table -tennis, lawn tennis. Other forty boys belonging to team games and sports (Group II) engaged in playing the games, namely hockey, football, volleyball, basketball, cricket, handball. And last forty sedentary boys (Group III) who are not participating in any games and sports will be selected randomly as control group for the study.

### Selection of variables

Academic Achievement of the subjects has been selected as a variable in the study. To assess the academic achievement of the selected subjects, Academic Achievement verbal intelligence test developed by Mr. R k Ojha and K Ray Chowdhury was used.

### Seasons and Participation

S.No.	Season	Participation	Intensity
1	Rainy season	Academics Sports	Light Moderate
2	Autumn/Winter	Academics Sports	Moderate Heavy
3	Spring	Academics Sports	Heavy Light
4	Summer	Academics Sports	Heavy

## STATISTICAL PROCEDURE USED

Analysis of Covariance (ANCOVA) was employed to find out the intra-group differences and where the 'F' ratio found significant then Post-hoc test Least Significant Difference (LSD) was applied to find out the direction and degree of differences. To test the hypothesis, the level of significance was set at 0.05.

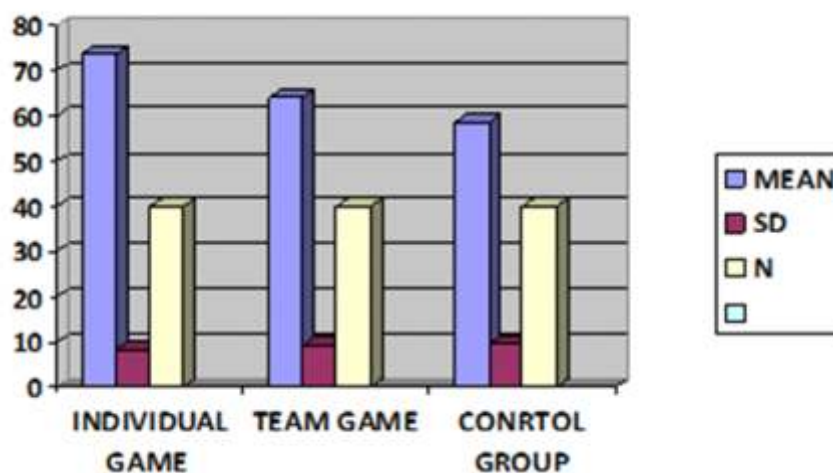
## RESULTS

**TABLE 1**  
**MEAN AND STANDARD DEVIATION OF DIFFERENT GROUPS MEASURED IN POST-TESTING**

TREATMENT GROUP	MEAN	STANDARD DEVIATION	N
INDIVIDUAL GAME	73.62	8.257	40
TEAM GAME	64.02	9.160	40
CONTROL GROUP	58.67	9.728	40

The table above shows the descriptive statistics of experimental group (Individual Game, Team Game) and Control group. The post testing observed values for Individual game group are 73.62 (Mean), and 8.257 (Standard Deviation). For Team game group, observed values are 64.02 (Mean), and 9.160 (Standard Deviation). For Control group, observed values are 58.67 (Mean), and 9.72 (Standard Deviation).

Mean and standard deviation scores of individual game group, team game group, and control group of post test are graphically presented below.



Adjusted means for data on academic achievement of different groups during post test are shown in the table below.

**TABLE 2**  
**ADJUSTED MEANS FOR THE DATA ON ACADEMIC ACHIEVEMENT**

TREATMENT GAME	MEAN	STD. ERROR	95% Confidence Interval	
			Lower Bound	Upper Bound
INDIVIDUAL GAME GROUP	71.67	.624	70.436	72.907
TEAM GAME GROUP	66.03	.624	64.798	67.271
CONTROL GROUP	58.61	.618	57.395	59.843

Covariates appearing in the model are evaluated at the following values pre academic achievement = 59.591.

The table above shows the adjusted means of Individual game group, Team game group and control group on academic achievement. Adjusted means for individual game group was found 71.672, for team game group it was found 66.035 and for the control group was 58.619.

The table below shows the F-value for the post test data on academic achievement.

**TABLE 3**  
**ANCOVA TABLE FOR THE DATA ON ACADEMIC ACIEVEMENT**

Source	Sum of Squares	df	Mean Square	F	Sig. (p-value)
Pre	7851.301	1	7851.301	514.019	.000
Group	3406.485	2	1703.242	111.510	.000
Error	1771.824	116	15.274		
Corrected total	14213.592	119			

R Squared = .875 (adjusted R Squared = .872)

Since p-value of groups is less than 0.05, which indicates that there is significant difference in adjusted means of academic achievement between the three groups.

**TABLE 4**  
**PAIRWISE COMPARISON**

Treatment Group (I)	Treatment Group (J)	Mean Diff. (I-J)	Sig. a (P- Value)
Individual Game Group	Team game	5.637*	.000
	Control game	13053*	.000
Team Game Group	Individual game group	-5.637*	.000
	Control group	7.416*	.000
Control group	Individual game group	-13053*	.000
	Team game group	-7.416*	.000

Based on estimated marginal means

\*The mean difference is significant at the 0.05 level.

a. Adjustment for multiple comparisons: Least significant Difference (equivalent to no adjustments).

## CONCLUSION

The results of the study conclude that the subjects who were involved in the individual games were found at the top as far as their academic achievements are concerned. The subjects who were involved in team games were also found significantly better than control group. But, the control group which was composed of the subjects who were deprived from physical activities were found at the lower side in the academic achievements.

## REFERENCES

1. Coleman, J. *The Adolescent Society*. New York: Free Press, 1961.
2. Edwards, H. Sport within the veil: The triumphs, tragedies and challenges of Afro1 American involvement. *Ann. Am. Acad. Polit. Soc. Sci.* 445: 116-127, 1979.
3. Eitzen, D.S. The educational experience of intercollegiate student-athletes. *J. Sport SOC. Iss.* 11:15-31, 1987. 10.
4. Eitzen, D.S. Athletics and high education: A conflict perspective. In: *Sport and Social Theory*, C.R. Rees and A.W. Miracle (Eds.). Champaign, IL: Human Kinetics, 1986, pp. 227-237
5. Godin, G., and R.J. Shephard. Psychological factors influencing intentions to exercise of young students from Grades 7 to 9. *Res. Quart. Exerc. Sport.* 57:41-52, 1986.
6. Gow, L., B. Balla, D. Kember, and KT. Hau. The learning approaches of Chinese people: A function of socialization processes and the context of learning? In: *The Handbook of Chinese Psychology*, M.H. Bond (Ed.). Hong Kong: Oxford University Press, 1996, pp. 109-123.
7. Gruber, J.J. Physical activity and self-esteem development in children: A meta-analysis. In: *Effects of Physical Activity on Children (The American Academy of Physical Education Papers No. 19)*, G.A. Stull and H.M. Eckert (Eds.). Champaign, IL: Human Kinetics, 1986, pp. 30-48.

8. Gruber, J.J. Exercise and mental health. *Int. J. Sport Psych.* 6:28-40, 1975.
9. Harris, I.D., and M.A. Jones. Reading, math and motor performance. *J. Phys. Educ. Rec. Dance.* Nov.-Dec.:21-22,28, 1982.
10. Harris, O. Athletics and academics: Contrary or complementary activities? In: *Sport, Racism and Ethnicity*, G. Jarrie (Ed.). London, UK: Burgess Science Press, 1991, pp. 124-129.
11. Hart, E., and C.T. Shay. Relationship between physical fitness and academic success. *Res. Quart.* 35:443-445, 1964.
12. Hauser, W.J., and L.B. Lueptow. Participation in athletics and academic achievement: A replication and extension. *Sociol. Quart.* 19:304-309, 1978.
13. Ho, D.Y.F. Filial piety and its psychological consequences. In: *The Handbook of Chinese Psychology*, M.H. Bond (Ed.). Hong Kong: Oxford University Press, 1996, pp. 155-165.