

## Comparative Analysis of Sports Participation Levels among Government, Private, And Aided Schools in Karnataka, India

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### Abstract

This study aimed to compare the levels of sports participation among government, private, and aided schools in Karnataka, India, and provide suggestions to improve sports participation levels among students. The study utilized a descriptive research design and collected data from 3152 students using a self-administered questionnaire. The results showed that government schools had the highest number of students participating in sports activities, followed by private and aided schools. However, private schools had the highest mean level of sports participation, followed by aided schools and government schools. The ANOVA results confirmed that school type had a significant effect on sports participation levels, with government schools having significantly lower participation levels than private and aided schools. Based on the results and discussion, the study suggests that government schools should be given more resources and support to increase their sports participation levels, private and aided schools can share their resources and expertise in sports with government schools, sports curriculum should be made mandatory for all students, and government and educational authorities should take a proactive approach in encouraging sports participation among students. These findings have implications for policy-makers, educators, and parents in promoting sports activities among students in schools.

**Key words:** *Sports participation, Government schools, Private schools, Aided schools, Karnataka, India.*

### 1. Introduction

The role of physical education is to promote sport participation from a sociological perspective, with sport and physical education stimulating involvement in sport activities as the pivotal factor (**Drummond and Pill, 2011**). In the Indian context, there has been a growing interest in sports participation. India is still facing challenges in promotion of sports participation, including limited access to sports facilities and equipment, a lack of funding, and societal pressures towards academic achievement. The sociological perspective of physical education can provide insights into these challenges and how they can be addressed through inclusive and diverse sports programmes. Additionally, a focus on broader sociological issues such as gender, social class, and cultural diversity can promote greater inclusivity in sports participation and encourage a more holistic approach to physical education (**Mohanty et al., 2019**).

Sports participation is an essential component of physical education in schools. In recent years, physical education programmes have constantly provided opportunities for all school-age children to access health-enhancing physical activities. However, the effective implementation of supportive physical education policies varies from state to state and from school to school, resulting in disparities in access to sports participation opportunities during the school day. Therefore, promotion of sports participation in schools requires supportive physical education policies that prioritise the inclusion of sports activities as a crucial component of physical education. (**W. Kohl et al., 2013**).

Particularly, educational institutions must promote sports participation at school levels, including all types of sports and physical exercise, both individual and team sports activities, at various levels. Sports meets organised at the school, district, division, and state levels play a vital role in boosting physical health, teamwork, and skill acquisition, enhancing academic performance, and promoting general well-being (**Jayabharathi, 2017; Shankara Murthy and Ravindra Gouda, 2022**).

Here, Sport participation and time spent engaging in sports are linked to higher physical activity levels in teenagers. To promote physical activity in youth, interventions should address the needs of deprived neighbourhoods and obese individuals and avoid gender stereotypes. Possible strategies include improving sports availability and quality, providing school sports grounds, offering enjoyable competitive and non-competitive options, and promoting family, peer, and teacher interaction. Encouraging participation in sports and other physical activities, such as unstructured play, active transport, and physical education classes, can effectively increase overall physical activity in teenagers (**Mandic et al., 2012**).

As, access to education and sports programs can have a positive impact on underprivileged children. Sports support programs equip learners with the necessary tools to excel in sports and emerge as community leaders, empowering them to reach their potential in sports and future careers. School sports provide numerous benefits for children's physical,

social, and cognitive development. They enhance fundamental movement skills and physical competencies, foster social skills, self-esteem, pro-school attitudes, cognitive development, and academic achievement. Physical education also fosters respect for the body and promotes an understanding of the role of physical activity in health (**Khulani Nathi Sport Academy, n.d; Samagra Shiksha, Department of School Education & Literacy, 2020; Van Boekel et al., 2016**). Thus, promoting school sports can be an effective strategy for improving students' academic achievement and social well-being.

The differences in sports participation and support among government, government-aided, and private management schools in India are apparent. Government schools receive significant funding from the government, allowing them to offer extensive sports programmes and facilities to their students. In addition, inter-school and inter-district sports competitions are organised to promote sports and physical activity among students. Private schools, on the other hand, receive little or no government funding for sports programmes and facilities, which results in limited sports support for their students. However, some private management schools with a focus on sports may provide excellent sports facilities and training for their students (**Pawar and Kumar, 2019**).

## 2. Review Of Literature

This section presents a review of recent literature on sports participation in schools. A recent study by **Lisha and Sussman (2010)** observed that sports participation is associated with increased alcohol use, but decreased cigarette smoking and illicit drug use. Study concluded that, the relationship with illicit drugs is not consistent and requires further investigation. Prevention efforts should emphasize the negative impact of drinking on athletic performance and the potential for harmful behaviours. While sports are often seen as protective against drug use, a deeper understanding of these correlations is needed to assess their true impact on young people.

Another study **Zhang et al., (2023)** provides signal for a positive relationship between sports participation and academic performance among Chinese primary school children. The study found that Chinese, math, and English academic performance were positively correlated with participation in sports. Children who participate in sports 1-3 times a month, 1-2 times a week, and 3 or more times a week are more likely to achieve better grades compared to those who never participate. The study confirms the positive effect of sports participation on children's academic performance.

**Moeijes et al., (2019)** study explored the association between specific characteristics of sports participation and health-related quality of life in children. The study found that membership of a sports club, moderate or high frequency of sports participation, and performing outdoor sports were all significantly associated with better health-related quality of life, mainly in the physical and social domains. The study highlights the importance of considering specific aspects of sports participation for promoting health-related quality of life in children.

**Curtis et al., (1999)** study examined the relationship between high school sport participation and involvement in sport as adults using a representative sample of adult Canadians. Results supported the school sport experiences hypothesis, with inter-school sport activities during high school being a strong predictor of adult sport involvement. This effect held across age and gender subgroups, persisting even 40-59 years beyond high school. High school sport involvement may contribute to lifelong sport participation and should be considered in promoting physical activity.

Similar study observed by **Van Boekel et al., (2016)**. Study analyzed data from the 2010 Minnesota Student Survey to examine the effects of participation in school-organized sports on academic achievement and students' perceptions of support and safety. Results showed that regular participation in school sports was associated with higher GPAs, positive perceptions of school safety, and increased perceptions of support from family and teachers/community.

**Liu and Wang (2022)** study investigated that the impact of the "Double Reduction" policy on primary school students' sports participation in Shenyang, China. The study finds that parents and schools pay more attention to physical health and exercise, but communication is lacking, and there is a lack of diversity in sports projects in schools. Wealthy families have greater access to off-campus sports training, creating an unequal distribution of opportunities among families of different social classes.

**Fisher et al., (1996)** study surveyed 838 inner-city high school students in New York City to investigate positive and negative correlates of sports participation. The majority of students participated in sports, with enjoyment, recreation, and competition being the main reasons. However, some had unrealistic expectations and utilized unhealthy behaviors. No significant association was found between sports involvement and academic performance, self-esteem, or depression.

Another study explored by **Maniam (2017)** observed that the influence of parental support on Australian year 11 students' participation in sports. Primary data from 111 students' written personal statements revealed that 80% of respondents played a total of 23 different sports, with

soccer being the most popular. Parental support for sports participation was evident in 89% of comments, but only 11% of parents played an active role.

**Jordan (1999)** study examines the relationship between sports participation and various outcomes for Black adolescents, using a nationally representative sample. The study found that sports participation improves school engagement and academic self-confidence for all student athletes. Furthermore, there is a positive relationship between sports participation and academic achievement.

At this juncture, there is a research gap in understanding the disparities in sports support among government, government-aided, and private management schools in Karnataka and how these disparities are influenced by factors such as funding, culture, geography, and student demographics. The present study is limited to comparative analysis of sports participation levels among schools. Further studies are needed to compare sports participation levels and inform strategies to promote and support sports participation among students.

### 3. Objective of the Study

The objective of study is to analyse the disparities in sports support among government, government-aided, and private management high schools in Karnataka state. The study aims to compare the level of support in terms of District level, Division level and State & above level across different types of schools. By identifying the factors that contribute to these disparities, the study aims to inform strategies to promote and support sports participation among students and create a more inclusive and equitable environment for sports in schools.

### 4. Study Area and Methodology

The study area for this research is the high schools in Karnataka state, India, encompassing classes 8th–10th and comprising students aged between 14 and 17 years. The study aims to analyse disparities in sports support among government, government-aided, and private management high school students in Karnataka state. The study will focus on selected educational districts in Karnataka, grouped into four educational divisions, each with its headquarters in Bangalore, Belgaum, Gulbarga, and Mysore.

For this study, primary data were collected through purposive sampling methods, and 3152 students from sample high schools from the four educational divisions, namely Bangalore, Mysore, Belagavi, and Kalaburagi, were questioned using self-administered questionnaires and interviews. The data obtained were analysed using the SPSS programme. Descriptive statistical methods and inferential statistical methods such as one-way ANOVA statistical methods used to test for differences among means sports participation levels among government, private, and aided schools in Karnataka as per research data.

### 5. Results and Discussion

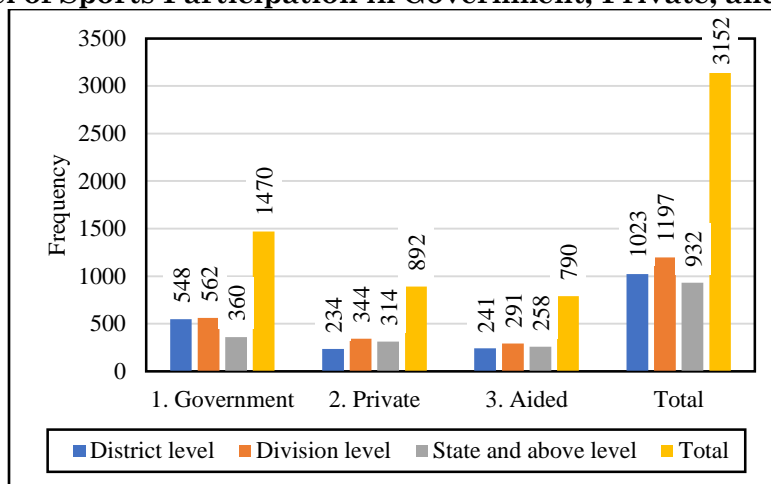
According to the study, sports participation refers to the involvement of individuals or groups in sports activities, either individually or as part of a team. The research collected data from four divisional students from government, private, and aided schools who were participated in sports activities at various levels, including district, division, state, and above. Participants were asked to report their highest level of sports participation.

**Table 5.1. Comparison of Sports Participation Levels among Government, Private, and Aided Schools Based on Number of Students**

Schools	Level of Sports Participation			Total
	District level	Division level	State and above level	
1. Government	548	562	360	1470
2. Private	234	344	314	892
3. Aided	241	291	258	790
<b>Total</b>	<b>1023</b>	<b>1197</b>	<b>932</b>	<b>3152</b>

The table presents a comparison of sports participation levels among government, private, and aided schools based on the number of students. The data indicates that government schools have the highest level of sports participation, with a total of 1470 students participating in district, division, state, and above level sports events. Private schools have the second-highest level of sports participation with a total of 892 students participating, while aided schools have the lowest level of participation with a total of 790 students. These findings suggest that government schools offer more opportunities for sports participation than private and aided schools based on the number of students.

**Figure 5.1. Level of Sports Participation in Government, Private, and Aided Schools**



The figure 5.1 presents a comparison of sports participation levels among government, private, and aided schools based on the number of students.

**Table 5.1. Mean and Std. Deviation scores of sports supports among Schools of Karnataka**

Sports support	N	Mean	Std. Deviation	Std. Error	95% CI for Mean		Min	Max
					Lower Bound	Upper Bound		
1. Government	1470	1.87	0.776	0.020	1.83	1.91	1	3
2. Private	892	2.09	0.779	0.026	2.04	2.14	1	3
2. Aided	790	2.02	0.795	0.028	1.97	2.08	1	3
<b>Total</b>	<b>3152</b>	<b>1.97</b>	<b>0.787</b>	<b>0.014</b>	<b>1.94</b>	<b>2.00</b>	<b>1</b>	<b>3</b>

The descriptive statistics of sports participation levels show that the government schools have a total of 1470 students participating in district, division, state, and above level sports events, with a mean participation level of 1.87 ( $SD = 0.776$ ). Private schools have a total of 892 students participating in sports activities, with a mean participation level of 2.09 ( $SD = 0.779$ ). Aided schools have a total of 790 students participating in sports activities, with a mean participation level of 2.02 ( $SD = 0.795$ ). The overall mean sports participation level for all types of schools is 1.97 ( $SD = 0.787$ ). The minimum and maximum values for sports participation are 1 and 3, respectively, for all types of schools. The 95% confidence interval (CI) of the mean values indicates that there is a 95% chance that the true population means of sports participation levels fall between the lower and upper bounds of the CI. The findings suggest that government schools have the lowest mean level of sports participation based on the number of students, while private schools have the highest mean level of sports participation, followed by aided schools.

**Table 5 Analysis of Variance and Bonferroni Post-hoc Comparisons for Sports Participation Levels by School Type**

Sports Participation Levels	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	28.957	2	14.479	23.704	.000
Within Groups	1923.416	3149	.611		
Total	1952.373	3151			

Note: SS = sum of squares, df = degrees of freedom, MS = mean square, CI = confidence interval. The Bonferroni correction was used to adjust for multiple comparisons. \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

A one-way analysis of variance (ANOVA) was conducted to compare sports participation levels based on number of students among government, private, and aided schools. The results showed a significant main effect of school type on sports participation levels,  $F(2, 3149) = 23.704, p < .001$ . Post hoc multiple comparisons using Bonferroni correction revealed that government schools had significantly lower sports participation levels than private schools (mean difference = -0.218,  $SE = 0.033, p < .001$ ) and aided schools (mean difference = -0.149,  $SE = 0.034, p < .001$ ), while private and aided schools did not differ significantly (mean difference = 0.068,  $SE = 0.038, p = .223$ ). These findings suggest that government schools may need additional support to increase sports participation levels among their students.

**Conclusion**

The study examined the levels of sports participation among government, private, and aided schools in Karnataka, India. The results indicated that government schools had the highest number of students participating in sports activities, followed by private and aided schools. However, private schools had the highest mean level of sports participation, followed by aided schools and government schools. The ANOVA results confirmed that school type had a

significant effect on sports participation levels, with government schools having significantly lower participation levels than private and aided schools.

Based on these findings, the study suggests that government schools require more resources and support to increase their sports participation levels. This could involve providing funding for sports equipment, facilities, and training programs for coaches and students. Private and aided schools can also share their resources and expertise in sports with government schools to help improve their sports programs.

The study also highlights the importance of making sports curriculum mandatory for all students in schools. This not only improves physical health but also helps to develop team-building skills, leadership qualities, and sportsmanship. Furthermore, the government and educational authorities should take a proactive approach in encouraging sports participation among students by creating awareness about the benefits of sports in overall development through campaigns, seminars, and workshops in schools and local communities.

In conclusion, the study suggests that government schools need additional support to increase sports participation levels among their students, while private and aided schools should maintain their current efforts to promote sports activities. By implementing these recommendations, schools in Karnataka, India, can improve their sports participation levels, which will ultimately contribute to the overall development of students.

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#### Bibliography

“Khulani Nathi Sport Academy ”. (n.d.). , Khulani Nathi Sport Academy , available at: [https://khulaninathisport.co.za/?gclid=CjwKCAjwue6hBhBVEiwA9YTx8Gvapms-vfOW4c5yopmbbioBAd\\_9ywC9GG8FOMZxU8c9LM1Y97eJ0BoCVRcQAvD\\_BwE](https://khulaninathisport.co.za/?gclid=CjwKCAjwue6hBhBVEiwA9YTx8Gvapms-vfOW4c5yopmbbioBAd_9ywC9GG8FOMZxU8c9LM1Y97eJ0BoCVRcQAvD_BwE) (accessed 17 April 2023).

1. “Samagra Shiksha, Department of School Education & Literacy”. (2020), , Ministry of Education, Government of India., 17 August, available at: <https://samagra.education.gov.in/sports.html> (accessed 17 April 2023).
2. Curtis, J., McTeer, W. and White, P. (1999), “Exploring Effects of School Sport Experiences on Sport Participation in Later Life”, *Sociology of Sport Journal*, Human Kinetics, Vol. 16 No. 4, pp. 348–365.
3. Drummond, M. and Pill, S. (2011), “The role of physical education in promoting sport participation in school and beyond”, *Youth Sport in Australia*, Sydney University Press, pp. 176–190.
4. Fisher, M., Juszczak, L. and Friedman, S.B. (1996), “Sports participation in an urban high school: Academic and psychologic correlates”, *Journal of Adolescent Health*, Elsevier BV, Vol. 18 No. 5, pp. 329–334.
5. Jayabharathi , A. (2017), “Influence of psycho-social factors on sports participation of college women in coastal Karnataka”, *International Journal of Physical Education, Sports and Health*, Vol. 4 No. 3, pp. 366–370.
6. Jordan, W.J. (1999), “Black High School Students’ Participation in School-Sponsored Sports Activities: Effects on School Engagement and Achievement”, *The Journal of Negro Education*, JSTOR, Vol. 68 No. 1, p. 54.
7. Lisha, N.E. and Sussman, S. (2010), “Relationship of high school and college sports participation with alcohol, tobacco, and illicit drug use: A review”, *Addictive Behaviors*, Elsevier BV, Vol. 35 No. 5, pp. 399–407.
8. Liu, S. and Wang, G. (2022), “Exploration of Sports Participation and Curriculum Resource Utilization in Primary Schools Before and After the ‘Double Reduction’”, *Frontiers in Psychology*, Frontiers Media SA, Vol. 13, available at: <https://doi.org/10.3389/fpsyg.2022.898675>.
9. Mandic, S., Bengoechea, E., Stevens, E., Leon de la Barra, S. and Skidmore, P. (2012), “Getting kids active by participating in sport and doing It more often: focusing on what matters”, *International Journal of Behavioral Nutrition and Physical Activity*, Springer Science and Business Media LLC, Vol. 9 No. 1, p. 86.
10. Maniam, V. (2017), “Secondary School Students’ Participation in Sports and their Parents’ Level of Support: A Qualitative Study”, *Physical Culture and Sport. Studies and Research*, Walter de Gruyter GmbH, Vol. 76 No. 1, pp. 14–22.
11. Moeijes, J., van Busschbach, J.T., Wieringa, T.H., Kone, J., Bosscher, R.J. and Twisk, J.W.R. (2019), “Sports participation and health-related quality of life in children: results of a cross-sectional study”, *Health and Quality of Life Outcomes*, Springer Science and Business Media LLC, Vol. 17 No. 1, available at: <https://doi.org/10.1186/s12955-019-1124-y>.
12. Mohanty, G.S., Natarajan, H., Joshi, P. and Soneja, J. (2019), *Sports Infrastructure: Transforming the Indian Sports Ecosystem*, No. DC0,

<https://www.pwc.in/Assets/Pdfs/Industries/Entertainment-and-Media/Sports-Infrastructure.Pdf>, The Associated Chambers of Commerce and Industry of India (ASSOCHAM) & PwC, India, available at: <https://www.pwc.in/assets/pdfs/industries/entertainment-and-media/sports-infrastructure.pdf> (accessed 20 April 2023).

13. Pawar, S.S. and Kumar, A. (2019), "Utilization of Sports Facilities in Government and Private Schools of Delhi: A Comparative Analysis", *International Journal of Physical Education & Sports Sciences*, Vol. 14 No. 2, pp. 26–39.
14. Shankara Murthy , K.M. and Ravindra Gouda , S.M. (2022), "Determinants of Sports Participation in Davanagere District, Karnataka State", *Kanpur Philosophers*, Vol. 9 No. 1, pp. 943–948.
15. Van Boekel, M., Bulut, O., Stanke, L., Palma Zamora, J.R., Jang, Y., Kang, Y. and Nickodem, K. (2016), "Effects of participation in school sports on academic and social functioning", *Journal of Applied Developmental Psychology*, Elsevier BV, Vol. 46, pp. 31–40.
16. Van Boekel, M., Bulut, O., Stanke, L., Palma Zamora, J.R., Jang, Y., Kang, Y. and Nickodem, K. (2016), "Effects of participation in school sports on academic and social functioning", *Journal of Applied Developmental Psychology*, Elsevier BV, Vol. 46, pp. 31–40.
17. W. Kohl, I.H., Cook, H.D., Physical Activity and Physical Education in the School Environment, C. on, Nutrition Board, F. and and Medicine, I. of. (2013), "Approaches to Physical Education in Schools - Educating the Student Body - NCBI Bookshelf", *Approaches to Physical Education in Schools - Educating the Student Body - NCBI Bookshelf*, 30 October, available at: <https://www.ncbi.nlm.nih.gov/books/NBK201493/>.
18. Zhang, Y., Yan, J., Jin, X., Yang, H., Zhang, Y., Ma, H. and Ma, R. (2023), "Sports Participation and Academic Performance in Primary School: A Cross-Sectional Study in Chinese Children", *International Journal of Environmental Research and Public Health*, MDPI AG, Vol. 20 No. 4, p. 3678.