

Effect of Sports Facilities on Academic Performance of the Female Students of Elementary Classes

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Abstract

Sports facilities in educational institutes play a vital role towards sports and academic activities. The aim of investigation was to examine the relationship of sports facilities (SF) on academic performance of the students in elementary schools. A sample of 400 students was selected from public and private schools. At first stage, 40 schools were selected through stratified random sampling and at second stage 10 students were selected from each selected school by simple random sampling. Measurement scale of Impact of Sports Facilities on the Performance of Academic Achievement of the students (Tharnhill & Lewis, 2009) was used for data collection. Descriptive statistics, correlation and regression analysis were applied for data analysis. The Cronbach's alpha reliability statistic was 0.85. The sports infrastructure in elementary and secondary schools was very poor. However, sport facilities in public schools were slightly better than private schools. The athletic and academic performance level of the students of elementary classes in district Lahore was below average. Students of public schools were better in athletic and academic activities as compared to the students of private sector. SF had positive, linear and significant ($p < 0.01$) correlation with academic performance ($r = 0.28$) of students. It had positive and significant ($p < 0.01$) impact on academic performance ($\beta_1 = 0.52$, $t = 11.06$) of the students of elementary classes in district Lahore. It is concluded that in elementary schools, academic performance of students was significantly associated with sports facilities in school premises. Therefore, management of public and private schools should provide sports facilities to improve performance of the students.

Keywords: Sports Facilities, Academic, Performance, Elementary, Schools

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Introduction

Physical Education is a process through which individuals and society transmit experience and values from generation to generation. It makes them able to make all rounded contribution in progress through skills, knowledge and positive attitude. According to Audit (2016) education is distribution of courses at wide range for the acquisition of knowledge with creative thinking and effective communication. Both Education and Sports are mandatory and need a strong platform in the form of a school. As it is mentioned by Al-Shorman (2009) that it an education system which promotes mental and intellectual powers and make them able to adjust themselves according to situation. Schools were considered an only source to discover and promote the abilities and talent of athletes since early ages (Albert et al., 2006). An opportunity is provided to every young person to practice the physical hobbies in healthy and sound atmosphere.

Sports programs are essential part of all higher-secondary, secondary, elementary and primary schools. These programs support the academic activities of the schools. These sports activities in educational institutes produce good dynamic citizens. They support the school going guys experience and make skills which will help them in later life, for example time management and interpersonal skills. Academic activities can produce the light of knowledge, but physical and sports activities help to maintain healthy body and sound mind. Sports and physical activities in schools are also important towards entertainment and provide a better use of energy after study hours. Students performance can be increased in classroom due to sports and physical activities in school time and after school time as well. It is an established fact that sports participation in schools encourages self-esteem, better moods and self-efficacy (Sanni et al., 2018).

Students are energetic; their all energy cannot be spent in academic activities only. Therefore, extra energy may lead students towards unhealthy activities which are dangerous to their health and their studies and for the society as well. This can be controlled or avoidable with the help of sports and physical activities in schools and colleges. Students who take part in sports activities have their mind free from wrongful thoughts. Students learn that they play not only for themselves but also for the success of their team or school. The students have to keep in mind the success of their school. Students learn that the ups and downs in life are to be expected aspects of life. Sports or physical activities can help the students in experience of hardships and can prepare them to face the troubles in their daily life. Fair play is the breathing of sportsman. The other names of sports are “loyalty, honesty and integrity” for students. So, a good sportsman is a good citizen of the nation. Physical and sports science education is a type of education that describes body development, the learning of movement abilities, skills and communication (Dacica, 2013). Sports sciences and physical education represent the

aspect of general education which is the form of development and organization for the optimization of physical potential of the individual to increase the quality of life (Dacica, 2012). Sports represent the culture and health of the society.

Unfortunately, young people tend to ignore sports arenas. Today, the fact that most of the students are busy in electronic gadgets instead of physical activities represent a real picture of the society, which is dangerous one. This reality shows an alarming sign for all process involved in the development process of youth generation. All these sport and physical activities are not prioritized in the schools and colleges. It should be imperative for the students to participate in sports or other physical activities. The humanizing of the customs of practicing in different sports and physical education activities must be understand by schools and colleges (Colibaba-Evuleț & Colab, 2011).

There are several contexts correlated to schools for hopeful and reinforcing sports and physical activities (Jago & Baranowski, 2004). The school has become a very convincing influencer, not least because it works with a confined audience approximately forty to fifty percent of children and youth's waking hours (Harris and Elbourn, 1997). However, as with all social manipulators, the strength of its influence changes over the period of time. Investigations suggest that attitudes of the students of both genders, towards physical education and sports sciences are significantly positive during their elementary school education. While this attitude changes in teenage, boys tend to maintain their interest towards sports and physical activities into their teenaged years but there is a marked decline in girls' positive attitudes towards sports in their thirteen and fourteen years of age (Dismore, 2006).

The University of Cambridge (2019) reported that the 4000 Tripos results of undergraduate students of their Gymnastic Club who had participated in sports had achieved (5.3%) greater scores than the percentage achieved by undergraduates in the university as a whole. Wood (2020) conducted a surveyed about 6891 students and found that students more likely to get a higher grade, and it were 10% above the expectation of inactive students. And they were more confident about finding a job just after graduation.

As it is revealed in National Education Policy (NEP) in 2017, that holistic growth of a child needs to keep focus on academic goals and physical, psychological, emotional and social aspects of education. Sports activities play a key role of spine in cultivating various recreational and cultural activities; and respecting others and also develop abilities to make right decisions on right time (Oudat et al., 2009).

Sports and Physical education have great advantages connected with active participation. Baily (2006) reported that PE helps people and individuals in developing self-confidence, self-respect, integrating social contacts, physical and cognitive growth. Webber (2016) suggested that health related habits attained in school or colleges at childhood were maintained into maturity. It was also described by Baily (2006) that PE increased academic achievements by boosting self-esteem, increasing blood flow in brain, and mental alertness. The programs or classes that include PE with activities boost up the confidence level of the students which also helps to reduce anxiety, depression and stress (Baily, 2006).

Reach to quality facilities is significant if we are to ensure that everyone can take part in physical activities and sports. We distinguish the valuable role that physical activities or sports can play an importance role in the country of providing facilities. So, we have to increase physical activities in our normal daily life through our routine life, or participation in sport, irrelevant of age (Castelli and Rink, 2003).

Most of the schools or other fitness centres provide sports leagues for schools such as badminton, basketball, football, table tennis, volley ball and lane tennis. While some schools or colleges do not offer sports as fraction of regular academic curriculum, school going kids may need to find sports and physical activities outside of the academic activities in their school days. Therefore, most of the students may move away from sports and physical activities if these activities are not required in schools (Dagkas and Stathi, 2007).

Various types of the school sports can involve competition within a public and private school. Students can compete within their own school in a regular weekly program. This type of intra-school program can be a rich learning experience, including basic skills, rules, preparation and umpiring. Sports participation in high schools enable the school community to develop and promote a strong identity and brings the school and local sporting communities together (Kramer, 2008).

Access to facilities is important if we are to ensure that people should have the opportunity to take part in sport and physical activities. We distinguish the valuable role sports in a community and significance of providing facilities. We should look to increase levels of activity whether through our daily routine life (Stevens-Smith, 2004).

In public schools the fee structure is very low because these institutes are funded by the Punjab government, state and central governments as well. In public schools, students have much time for sports as compared to their study times. Students of public schools and students who are encouraged and provided the required opportunities and facilities would participate more in such healthy activities. Normally, with the exception

of some elite schools, there is nominal sports budget in private schools. Comparatively, the public schools have greater sports budget than that of private schools. Frankly, there is no trend of organising inter-competitions between public and private schools. During sports tournaments, extra time is given to students for games not for studies. Nominal incentives are given to the athletes (Merkel and Molony, 2012).

The inequity between the sports team of private and public schools does not need to be adjusted. As compared to private schools, public schools offer an extra service regarding sports activities. These services are better teachers and better sports instructors or coaches. Due to these facilities and athletic success most of the students or athletes want to go in public schools. This gives to the student or athlete a better opportunity to be recruited. There is one thing that most private schools do very well to attract the students such as arts, drama and science but they never come to the topic of sports or athletics. This is the major reason by which the private schools cannot meet the honour of public schools (Merkel and Molony, 2012).

With limited finance and teachers, private schools are not able to meet those specialized needs of sports. While public schools have the more staff, more finance and more playgrounds to offer a different variety of classes especially for sports. It is not possible to give a proper report about which school provides more classes because the conditions are highly dependent on the specific school and district. The administrators of private school allocate budget carefully and mostly they do not have enough money to pay for additional products or for additional staff (Goncalves, et al., 2012).

In public schools, it is required to educate all the students, the budget is allocated and services are rendered without hurdles. The teacher to student ratio is less than the ratio in private schools but the class size is larger in any given public school. The size and building of the school depend on the local or regional influences. The teacher to student ratio depends on the parameters of each individual school. Another aspect about size is the concept of uncontainable growth in government schools. The finance of private schools comes from tuition and fundraising as well. It means overall finance of private school depends on number of enrolled students and the donors who paid for norms (Castelli and Valley, 2007).

The objectives of the study were to examine the relationships of sports facilities and academic performance of the students of elementary classes.

Methodology

Study Design

This is a descriptive and analytical survey study. The sample size (n=400) of students is computed through Yamane formula (1967). At first stage 40 schools, 20 from each sector (public & private) are selected through equal proportions by using stratified random sampling technique. At second stage 10 students from each selected school are selected through simple random sampling.

Data Collection Procedure

The list of all private and public elementary schools is obtained from District Education Office of Lahore. The questionnaires are distributed among the students at the selected schools. One hour time is given to the participants / respondents in the presence of concerned teacher and scholar. The questionnaires are translated in Urdu version so that respondents may understand them easily.

Data Analysis Tools

Data was analysed by using SPSS (version 21.0). Descriptive statistics, correlation and regression analysis techniques were applied for statistical analysis.

Results

The mean age of the participants was 10.28 ± 1.09 years. The descriptive statistics of the study are discussed here.

Descriptive Statistics of the Scales

Table 1
Sports Facility Level in Public and Private Schools (n=400)

Variables	Mean	SD
Public Schools (n=200)	2.12	0.59
Private Schools (n=200)	1.82	0.62

The results of the Table-1 show the sports facility levels in public and private schools, respectively. The mean values show that the facility level in public schools is a little bit much better as compared to private schools. But over-all scenario of sports facilities in both public and private sectors schools is below average. It can be stated that the sports infrastructure in public and private elementary schools of both sectors in district Lahore is very poor.

Table 2

Academic Performance Level in Public and Private Elementary Schools (n=400)

Variables	Mean	SD
Public Schools (n=200)	2.43	0.59
Private Schools (n=200)	2.31	0.59

Academic performance levels of public and private sector elementary schools are listed in Table 2. The mean values indicate that the academic performance level of the students at public schools is slightly better than the academic performance level of the students of private schools. The over-all mean (2.37 ± 0.59) value shows that the academic performance levels of the students of elementary classes of public and private schools in district Lahore is below average.

Regression Analysis

To determine the effect of sports facilities on academic performance the regression analysis is applied. The generated score variables of sports facility (SF), and academic performance (AcP) are used to find out the regression model. The following regression equation is fit to analyze the effect sports facilities on academic performance.

Model

Academic Performance = f (Sports Facilities) + ε

$$AcP = \beta_0 + \beta_1 (SF) + \varepsilon \quad (Eq-1)$$

Where β_0 is intercept, β_1 is slope of the line and ε is random factor or error term.

Table 3

Model Summary (n=400)

Model	R	R ²	Adj R ²	SE
	0.28	0.08	0.07	6.27

Predictor variable is "Sports Facilities" & Dependent Variable is "Academic Performance"

The value of $R^2=0.08$ for model shows that only 8% of the variability in academic performance of the female students can be explained by the regression model (Eq-1).

Table 4

Analysis of Variance for Significance of the Models (n=400)

Model	Items	Sum of Squares	df	Mean Square	F	p
	Regression	1276	1	1276	32	0.000
	Residual	15643	398	39		

Predictor= Sports Facilities, Dependent Variable = Academic Performance

df= Degree of freedom, F= F-distribution statistic, p=probability value

To examine the significance of the fitted model, the analysis of variance (ANOVA) technique is used under the regression analysis. The results of ANOVA (table-4) show that the p-value for the academic performance model is less than $\alpha=0.05$, therefore, it is concluded that the fitted model is significant ($p<0.01$).

Table 5

Regression Coefficients of the Models (n=400)

Models	Coefficients	B	SE	t	p
	(Constant)	20.42	1.04	19.60	0.000
	Sports Facilities	0.26	0.05	5.70	0.000

Predictor= Sports Facilities, Dependent Variable= Academic Performance

The regression coefficients (β), standard error of the estimate (SE), t-statistic value and significant p-value for both the models are listed in Table-5. The (slope) regression coefficient ($\beta_1=0.26$) and p-value ($p<0.00$) for the model have positive values which indicate that sports facilities have positive and significant effect on academic performance of the students of elementary classes in district Lahore.

Discussion

Gore (2006) emphasis that sports activities and facilities strength the social and emotional stability in children. Heilman (2012) supports this notion that physical education and physical activities benefit children in academic achievement. The current study also shows that sports facilities have positive and significant impact on academic performance of the students. Therefore, it validates the investigations of Gore (2006) and Heilman (2012).

Sanni and Fashina (2018) designed a study to explore the development of sports in Nigerian schools, particularly, in the primary schools. Their study identifies that the academic and social impacts of providing adequate sporting activities, equipment and facilities are important. This investigation supports the results of Sanni and Fashina (2018) because sports facilities have significant and positive effect on academic performance.

Ramli and Zain (2018) concluded that teaching aids, library, hostels, parking and sports facilities were all significant to impact the academic achievement of students. These factors contributed about 51.5% towards the student's achievement while the current study shows that sports facilities contribute 8% towards the academic achievement.

Conclusion

This study has been conducted on the students of elementary classes of public and private schools in district Lahore. It is concluded that sports facilities at institute level have positive and significant effect on academic performance of the students. Therefore, sport federations, government and school administration should allocate funds for sports grounds, gyms and other facilities at campuses.

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