

ORIGINAL ARTICLE

Effects of Teachers' Job Satisfaction and Sports Activities on Students' Results

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Conflict of Interest

All authors declare that there are no conflicts of interest.

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Introduction

Job satisfaction reflects the attitudes and feelings of personnel toward their work. A positive attitude toward work reflects job satisfaction, whereas a negative attitude indicates job dissatisfaction [1]. Job satisfaction arises from an employee's perception of how effectively their job provides outcomes that are considered important [2]. In the teaching profession, job satisfaction is associated with many factors, such as working conditions, teachers' financial situation, and students' responses to teachers' dedication [3]. Some researchers have also examined teachers' experience in the field of education in relation to students' academic achievement, using students' grades as an outcome measure after assessing their teachers' level of experience [4-6]. Motivational

Abstract

The purpose of this study was to investigate the effects of elementary school teachers' job satisfaction and sports activities on students' academic results at the elementary level. A survey design was employed, and data were collected from 186 elementary school teachers using a structured questionnaire. A rating scale was used to measure teachers' job satisfaction, students' involvement in sports activities, and students' academic results. The Statistical Package for the Social Sciences was utilized to manage and analyze the collected data. The results revealed that gender showed no significance influence on students' academic performance. Teachers with higher qualifications were associated with better student academic results. Teachers' age and teaching experience showed a significant association with both teachers' job satisfaction and students' academic results. Additionally, students' involvement in sports activities was associated with improved academic performance. Based on these findings, it is recommended that teachers' qualifications and students' participation in sports activities be given due consideration by government educational authorities.

Keywords: Job satisfaction, Sports activities, School teachers, Students

factors such as financial incentives, health benefits, and other intrinsic rewards also play a vital role in enhancing teachers' performance [7, 8].

The current situation of elementary school teachers indicates a heavy workload in terms of working hours, which directly affects job satisfaction. In addition, a lack of motivation exists due to insufficient appreciation from stakeholders for students' academic achievements, leading to job dissatisfaction. Such dissatisfaction may result in poor teacher performance in schools in Lahore. Therefore, the present study is timely and necessary to find the effect of elementary school teachers' job satisfaction on students' academic achievement. Studies on teacher behavior have shown that teachers are often willing to make extra efforts to

improve students' academic outcomes. A study explained that teachers' job performance can be demonstrated through the actions [9] and efforts they undertake to achieve educational objectives [10].

Students perceive teachers as supportive when teachers establish empathetic engagement with students, employ diverse and productive teaching techniques, recognize and encourage academic success, demonstrate fairness in communication, and create a classroom atmosphere where questions are welcomed [11]. A study suggested that achievement and recognition significantly contribute to the development of self-esteem [12]. Research has also identified various effects of extracurricular activities on students' academic achievement. A study reported a strong relationship between athletic activities and academic performance, suggesting that physical movement stimulates axonal growth, which facilitates communication between neurons in the brain. An increase in axonal connections was associated with higher intelligence levels. Individuals engaged in regular physical activity demonstrated greater cognitive development compared to those with sedentary lifestyles. Additionally, aerobic exercise was found to enhance recall speed, reduce cortical alertness, increase neurotrophin production, and promote capillary development in the brain [13]. A study by Vandervoort and Berliner (2004) pointed out that students taught by highly trained and qualified teachers demonstrated greater academic success [14]. In addition, a recent systematic review suggested to develop appropriate policies and interventions to enhance teachers' well-being and job satisfaction among physical education teachers in the Asian region, with particular emphasis on Southeast Asia [15].

Public schools provide free educational materials, technological resources, and monitoring mechanisms to ensure effective implementation of educational programs. These initiatives positively influence students' interest, concentration, attendance, and learning outcomes. However, it is important to examine the extent to which government initiatives are achieving their intended goals, as these efforts may also contribute to teachers' job satisfaction and, ultimately, to improved student results. Consequently, the present study, titled "Effects of Teachers' Job Satisfaction and Sports Activities on Students' Results," is both relevant and necessary.

A substantial proportion of school-age children remain out of school, and student dropout rates at the middle

and secondary levels remain high. Based on current trends, universal school enrollment in Pakistan is projected to occur only by 2076. Multiple factors may contribute to this concerning situation. Against this background, it is reasonable to assume that teachers' job satisfaction may serve a vital role in students' academic achievement. The apparent link between low job satisfaction and poor academic performance in government schools provided the impetus for conducting the present study. Therefore, there is a clear need to investigate elementary school teachers' job satisfaction and its effect on student learning outcomes in Lahore.

Material and Methods

The study adopted a descriptive quantitative research design drawing on a survey of elementary school teachers' responses. A scale-based survey questionnaire consisting of 20 items was developed to measure job satisfaction and related dimensions. The items were organized into four subcategories: incentives, sports activities, students' retention at school, and students' academic achievement. Each variable comprised five items. The instrument was subjected to validity and reliability testing prior to data collection.

The study was conducted among elementary school teachers in District Lahore, Pakistan. Ethical approval was granted by the Ethical Committee of the University of Lahore. Participation in the study was voluntary, and teachers were free to decide whether or not to take part. The researcher ensured the confidentiality of all information provided and safeguarded the privacy and dignity of the participants. In this regard, a study emphasized that confidentiality involves individuals' rights to control access to their personal information and records, as well as decisions regarding the sharing of such information [16].

The city of Lahore contained nearly 333 government elementary schools in the city of Lahore, including both boys' and girls' schools. Lahore is administratively divided into several zones, including Shalimar, Data Gunj Bakhsh, Ravi, Aziz Bhatti, Samanabad, Allama Iqbal, Gulberg and Nishtar Towns. The overall number of elementary school teachers was approximately 3,073, of whom 899 were male and 2,174 were female.

In research, a sample refers to a subject of participants selected from a larger population for the purpose of a

study. Although smaller in size, a sample should be representative of the population's characteristics [17]. In the present study, Government elementary school teachers of both gender were chosen as the study sample from Allama Iqbal and Samanabad Towns.

Thirty percent of the schools were randomly selected from the available population for inclusion in the study. Table 1 presents the division of the sample with respect to towns and gender.

Table 1: Sample distribution in Allama Iqbal and Samnabad towns

Towns	Towns' male teachers	Towns' female teachers
Allama Iqbal	130	191
Samanabad	132	150
Total number of teachers	262	341

The total population comprised 603 male and female elementary school teachers distributed across two towns. From this population, a total of 186 elementary school teachers from boys' and girls' schools participated in the study. The study utilized a previously developed survey questionnaire by Crawford (2017) for review and adaptation, which had already been established as valid and reliable [18]. However, exploratory fieldwork was conducted to identify and confirm the specific parameters relevant to the present study.

A preliminary list of questionnaire items was presented to subject-matter experts, who were asked to identify items concerning the job satisfaction of elementary school teachers working in Lahore,

particularly in Allama Iqbal and Samanabad Towns. Based on expert consensus, 20 items were finalized; items with minor disagreements were excluded. The resulting rating-scale instrument was then subjected to validity and reliability testing.

Quantitative data were analyzed using the Statistical Package for the Social Sciences (SPSS) to determine frequencies, mean scores, standard deviations, and percentages. Descriptive, differential, and inferential statistical procedures were applied to analyze and interpret the collected data for fulfilling the research objectives. Statistical significance was determined using the p-value criterion. A result was considered statistically significant when the p-value was found to be ≤ 0.05 , the accepted level of significance.

Results

The demographics and social characteristics of responders' are explained in Table 2.

Table 2: Demographics and social characteristics of responders

Categories	Occurrence	% Rate
According to the gender		
Male/Female	87/99	47/53
According to the age		
Less than 30 years	74.00	40.00
From 30 to 40 years	77.00	41.40
From 40 to 50 years	24.00	13.00
More than 50 years	11.00	6.00
According to the qualification		
Matriculation	1.00	0.50
Bachelor degree	14.00	7.50
Master degree	124.00	66.70
M.Phil degree	47.00	25.30
PhD degree	0.00	0.00

According to the teaching of experience

From 1 to 3 years	22.00	12.00
From 4 to 6 years	41.00	22.00
From 7 to 10 years	73.00	39.00
More than 10 years	50.00	27.00

Note: Total responders were 186.

The frequency analysis of sports activities indicated that students' participation in school sports was associated with improved academic results. However, the majority of teachers reported that insufficient time was allocated for conducting sports activities in schools. The frequency analysis related to students' retention revealed that 108 respondents (58.1%) reported that students were guided in selecting subjects of their choice. In response to another item, 158 respondents (84.9%) affirmed that students' questions were addressed by teachers whenever required. A clear majority of respondents ($n = 166$; 89.2%) stated that students were provided counseling to encourage regular school attendance. Furthermore, 113 respondents (60.8%) reported that parents were educated to assist students with their homework, while 135 respondents (72.6%) indicated that parents were informed about their children's strengths and weaknesses to support student retention.

Regarding facilitating academic achievement, 110 respondents (59.1%) reported that classroom practices were organized in two different instructional approaches. Additionally, 146 respondents (78.5%) agreed that teaching methods were appropriately matched to both subject content and students' needs. A majority of respondents ($n = 137$; 73.7%) indicated that daily lesson plans were prepared in advance based on students' needs. Moreover, 142 respondents (76.3%) reported that audiovisual aids were developed using locally available resources to align with subject content and students' learning requirements. Finally, 154 respondents (82.8%) stated that student-friendly rules were implemented to ensure a comfortable learning environment.

The association between demographics and social characteristics and teachers' job satisfaction was examined using the Chi-square test. The results indicated that teachers' job satisfaction was not significantly influenced by gender; approximately equal proportions of male (51.7%) and female (53.5%) teachers were satisfied with promotion procedures. No significant gender-based differences were observed in

decision-making related to job satisfaction. In contrast, age showed a significant positive relationship with teachers' job satisfaction, with teachers aged 30–40 years reporting lower satisfaction compared to other age groups. Teachers' qualifications were not significantly associated with job satisfaction; however, teaching experience demonstrated a significant effect.

Since students' marks (percentage) were measured on a continuous scale, descriptive statistics were used instead of frequency analysis. The mean percentage score of students was 95.72 ($SD = 4.16$), indicating overall excellent academic performance. The reliability of the 20-item instrument was assessed using Cronbach's alpha. The obtained alpha coefficient was 0.853, which falls within the acceptable range of 0.70–0.90, indicating high internal consistency. To evaluate validity, Pearson's product-moment correlation coefficient was applied, which yielded a value of 0.827 ($p < 0.001$), confirming that all items included in the instrument were valid. Correlation analyses were conducted to examine relationships among study variables. As the variables were categorical, Spearman's rank-order correlation coefficient was used along with corresponding p -values. At the 10% level of significance, age was found to be related to facilitating academic achievement, teachers' qualifications were associated with facilitating academic achievement, and teaching experience was related to incentives and sports activities. Pearson's correlation coefficient was utilized to determine the relationships between socio-demographic variables and students' academic percentage. All socio-demographic variables except gender demonstrated a moderate positive correlation with students' academic percentage. However, the analysis revealed a weak association between the four dependent variables and students' academic percentage.

Multiple regression analysis revealed that the model predicting facilitating academic achievement from socio-demographic variables was marginally significant ($p = 0.053$) and explained 56% of the

variance. In this model, age emerged as a significant predictor. The regression model predicting students' academic percentage from socio-demographic variables was statistically significant with $p < 0.001$ and explained 66% of the variance, with all variables except gender identified as significant predictors. The regression model examining students' academic percentage in relation to the four dependent variables was not statistically significant ($p = 0.261$) and explained 42% of the variance, indicating that these variables were not significant predictors of students' academic performance. Conversely, the regression model assessing teachers' job satisfaction as a function of students' academic percentage was statistically significant with $p < 0.001$ and explained 39% of the variance, identifying students' academic achievement as a statistically meaningful factor affecting teachers' job satisfaction.

The distribution of socio-demographic characteristics in relation to students' academic results indicated that students taught by teachers holding an M.Phil. qualification achieved a higher average percentage of marks (92%) compared to those taught by teachers with qualifications below the M.Phil. level. Regarding teachers' age, students taught by teachers aged 40–50 years achieved an average score of 90%, while those taught by teachers over 50 years of age achieved an average score of 96%, which was higher than other age groups. Similarly, teaching experience was found to play a significant role in students' academic performance; students taught by teachers with at least 10 years of experience achieved an average score of 90%.

Discussion

The impact of gender on job satisfaction has been investigated in numerous studies, with most findings indicating that gender was not found to be significantly related to job satisfaction. Consistent with prior research, the present study found that gender had no significant effect on students' academic performance. Students taught by male and female elementary school teachers achieved comparable academic results. A study reported no significant gender differences in job satisfaction levels [19]. Similarly, another study has identified age as a major factor contributing to job satisfaction [20]. In the current study, teachers' age was found to be associated with students' academic performance. Teachers under the age of 30 years reported a mean student achievement score of 93.39%, those aged 30–40 years reported a mean score of 96.37%, and teachers over 40 years of age reported the highest mean score of 99%.

Teaching experience also had a significant effect on students' academic performance. Teachers with 1–3, 4–6, and 7–10 years of experience reported mean student achievement scores of 91.45%, 92.75%, and 96.17%, respectively, whereas teachers possessing more than 10 years of professional experience reported a mean score of 99%. A study reported that teachers with higher age and longer teaching experience were associated with improved academic achievement among students than younger as well as less experienced teachers [21]. Previous studies have also emphasized teaching experience as a key determinant of job satisfaction [22]. Billingsley and Cross (1992), in a quantitative investigation of 1,147 educators, found that experienced teachers demonstrated higher levels of organizational commitment [23]. Increased commitment was also associated with higher job satisfaction, although the reciprocal association between commitment and job satisfaction was not clearly established. Factors such as accumulated time investment and limited alternative career opportunities may contribute to this relationship.

Service tenure represents the span of time a teacher has spent in the teaching profession. Research has shown that teachers with longer tenure demonstrate higher job satisfaction than less experienced teachers [24, 25]. Experienced teachers typically exhibit greater maturity and confidence in interacting with students and parents. Moreover, senior teachers often have greater access to instructional resources, as schools tend to facilitate resource utilization more effectively for experienced staff. Schools thus serve as fundamental settings for students' academic, emotional, and social development [26].

Teachers' qualifications represent another important factor influencing job satisfaction and student achievement. Several studies have examined this variable and reported varied findings. Teachers with higher academic qualifications and professional training tend to exhibit significantly higher job satisfaction than less qualified counterparts [27]. Educators with advanced academic degrees and higher levels of professionalism demonstrated more positive attitudes toward their jobs [28]. Highly qualified teachers believed that they were better able to deliver subject content due to their deeper subject knowledge and more effective communication skills [27]. These teachers also possessed greater instructional resources and employed more effective teaching strategies to engage students and enhance learning outcomes.

A study reported that students perceive teachers as supportive when teachers establish emotional connections, use diverse and evidence-based instructional practices, acknowledge and encourage academic success, demonstrate fairness in communication, and create classroom environments that encourage questioning [11]. Maslow (1943) emphasized that achievement and recognition contribute significantly to the development of self-esteem [12]. A previous study reported a direct relationship between students' academic achievement and their satisfaction levels [29].

The empirical findings of the current study further indicated that teachers' qualifications were positively associated with students' academic performance. Students taught by more highly qualified teachers achieved a mean academic score of 98%. Consistent with these results, the study conducted by Vandervoort and Berliner (2004) indicated that teachers with higher educational and professional qualifications were associated with greater student achievement [14]. Similarly, Guarino et al. (2006) identified a positive relationship between teachers' qualifications and students' academic grades, with higher-qualified teachers producing better academic outcomes than those with lower qualifications [21].

Conclusion

The study findings demonstrated that the proportion of female teachers was higher than that of male teachers. Gender and teaching experience showed a significant effect on students' academic performance, whereas teachers' age did not demonstrate a significant effect. Teachers with higher academic qualifications were associated with higher student achievement. The results further revealed that cash prizes were not offered to teachers for producing good academic outcomes, nor were teachers provided preferential treatment in the issuance of driving licenses. However, teachers reported satisfaction with daily lesson planning and the use of two-way teaching methods.

The survey findings also indicated that participation in sports activities at school served as a positive role model for students and contributed to physical fitness. Students' involvement in sports activities was associated with improved academic performance. Pearson's product-moment correlation analysis showed that all socio-demographic variables, except gender, had a moderately high correlation with students' academic achievement. Furthermore, multiple regression analysis revealed that gender, age, teachers' qualifications, teaching experience, and

teachers' job satisfaction were significant predictors of students' academic performance.

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Institutional Review Board Statement

Not Applicable

Informed Consent Statement

Written informed consent was obtained from the participants.

Declaration of Competing Interest

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