



Influence of Principal Leadership Skills on Parent–Teacher Collaboration and Student Outcomes: Evidence from Primary Schools of District Malakand

Mehak Shah¹, Mehnaz Fazal², Mahnoor³, Nayab⁴

1. BS Student, Department of Education, University of Malakand, WSC
Email: javed8677067@gmail.com
2. Lecturer, Department of Education. University of Malakand WSC,
(Correspondence Author), Email: educationist.mehnaz@gmail.com
3. BS Student, Department of Education, University of Malakand, WSC
Email: norikhan204@gmail.com
4. BS Student, Department of Education, University of Malakand, WSC
Email: javed8677067@gmail.com

Abstract

The present study was conducted to examine the influence of principal leadership skills on parent-teacher collaboration and the impact of parent-teacher collaboration on student outcomes in public primary schools of District Malakand. The study adopted a quantitative research approach using a descriptive-correlational design. The population of the study consisted of principals, teachers, and parents of public primary schools, while a sample of 291 respondents was selected through stratified random sampling techniques. Data was collected through a structured questionnaire based on a five-point Likert scale. The validity and reliability of the instrument were ensured through expert review and Cronbach's Alpha which was 0.92. The collected data were analyzed using SPSS through descriptive statistics, and regression analysis. The findings revealed that principal leadership skills were at a high level and had a significant positive influence on parent-teacher collaboration ($\beta = 0.68$, $p = 0.000$). Furthermore, parent-teacher collaboration was found to have a significant positive impact on student outcomes ($\beta = 0.58$, $p = 0.000$). The results confirmed that all hypotheses were accepted. It was concluded that effective principal leadership plays a vital role in strengthening collaboration between parents and teachers, which in turn enhances student outcomes. The study recommends leadership training programs for principals and improved communication strategies to strengthen school-community collaboration.

Keywords: Principal Leadership Skills, Parent-Teacher Collaboration, Student Outcomes, Primary Schools, District Malakand

Introduction

Effective school leadership plays a crucial role in improving the quality of education and enhancing student outcomes (Leithwood et al., 2008). One of the most important responsibilities of school principals is to build strong relationships with parents to promote their involvement in school activities and support student teaching (Epstein, 2011). Parent–teacher collaboration refers to the joint effort of parents and teachers in supporting students' academic, social, and

behavioral development. Research shows that strong collaboration between parents and teachers leads to improved student achievement, attendance, and overall development (Henderson & Mapp, 2002). Principals play a key role in strengthening this collaboration by promoting effective communication, shared decision-making, and an inclusive school environment (Kempa et al., 2025). Leadership styles such as transformational leadership further enhance teacher motivation, parental engagement, and instructional quality, which ultimately contribute to better student outcomes (Sultana et al., 2024). Strong leadership also helps in building trust, improving school-home communication, and encouraging parental participation in educational activities (Hallinger & Heck, 1998). Theoretical perspectives on leadership, including trait, situational, contingency, and transformational theories, emphasize that effective leadership depends on personal qualities as well as the ability to adapt to different situations. Among these, transformational and situational approaches highlight the importance of leadership in fostering collaboration and improving organizational performance. Despite the importance of principal leadership in promoting parent-teacher collaboration, limited research has been conducted in the context of Malakand, Pakistan, where schools face challenges such as limited resources, cultural barriers, and weak parental involvement. Therefore, this study aims to examine the impact of principal leadership skills on parent-teacher collaboration and their effect on student outcomes in primary schools of District Malakand.

Statement of the problem:

In primary schools of Malakand, weak parent-teacher collaboration remains a significant challenge that negatively affects student outcomes. Although school principals play a key role in fostering collaboration, many lack the necessary leadership skills to effectively engage parents and support teachers. This results in limited communication and low parental involvement in students' learning. Furthermore, there is a lack of research examining how principal leadership skills influence parent-teacher collaboration and student outcomes in this context. Therefore, this study aims to address this gap by exploring the impact of principal leadership on enhancing collaboration and improving student performance.

Objective of the study

This study has following objectives.

1. To examine the influence of principal leadership skills on parent-teacher collaboration in Primary school of Malakand.
2. To assess the impact of parent-teacher collaboration on student's outcomes.

Hypotheses of the study

Following hypotheses were formulated for the achievement of the objectives.

H₁: There is a significant influence of principal leadership skills on parent-teacher collaboration in primary schools of Malakand.

H₂: There is a significant impact of parent teacher collaboration on student's outcomes

Significance of the study

This study is significant as it examines how principal leadership skills influence parent-teacher collaboration and how this relationship improves student outcomes in schools of District Malakand. Effective leadership helps create a cooperative school environment by strengthening communication, trust, and involvement between parents and teachers, leading to better student academic and behavioral development. The study also provides useful insights for principals, teachers, parents, and policymakers to improve school effectiveness. It supports the development

of leadership training programs for school heads and promotes strategies that enhance parent–teacher collaboration. Additionally, it contributes to the existing literature by focusing on the specific educational and cultural context of Malakand and offers a foundation for future research in school leadership and student achievement.

Methodology

A quantitative, descriptive–correlational design was employed to analyze relationships among variables using numerical data. The study population included principals, teachers, and parents from approximately 250 public primary schools, with an accessible population of 1,250 respondents. A sample of 291 participants was selected through stratified random sampling using the Krejcie and Morgan table to ensure proportional representation of principals, teachers, and parents. Data were collected through a structured five-point Likert scale questionnaire, and its validity and reliability were ensured through expert review and Cronbach’s Alpha testing. Data were analyzed using SPSS through descriptive statistics, Pearson correlation, and regression analysis to test hypotheses at a 0.05 significance level.

Data Analysis and Results

Descriptive Statistics of Variables

The descriptive statistics show that all three variables are at a moderate to above-average level. Principal leadership skills have the highest mean ($M = 3.85$, $SD = 0.72$), indicating that respondents generally perceive principals as demonstrating effective leadership. Parent-teacher collaboration has a mean of 3.70 ($SD = 0.68$), showing a moderately positive level of cooperation between parents and teachers. Student outcomes have a mean of 3.65 ($SD = 0.75$), reflecting average to good academic and behavioural performance. Overall, the results suggest that leadership, collaboration, and student outcomes are positively perceived in public primary schools of District Malakand.

Table .1: Descriptive Statistics of Study Variables

Variables	N	Mean	Std. Deviation
Principal Leadership Skills	291	3.85	0.72
Parent-Teacher Collaboration	291	3.70	0.68
Student Outcomes	291	3.65	0.75

Hypothesis Testing

H₁: There is a significant positive influence of principal leadership skills on parent–teacher collaboration in primary schools of Malakand.

Table 2 shows a **significant positive influence** of principal leadership skills on parent-teacher collaboration ($\beta = 0.68$, $p = 0.000$). The R^2 value of 0.65 indicates that **65%** of variation in collaboration is explained by leadership skills. This means strong leadership significantly improves cooperation between parents and teachers.

Table 2: influence of principal leadership skills on parent–teacher collaboration

Hypothesis	Regression Weights	Beta Coefficient	R ₂	F	t-value	p-value	Hypothesis Supported
H ₁	LS → PTC	0.68	0.65	45.40	9.30	0.000	Yes

H₂: There is a significant impact of parent teacher collaboration on student’s outcomes

Table 3 indicates a **significant positive impact** of parent-teacher collaboration on student outcomes ($\beta = 0.58, p = 0.000$). The R² value of 0.54 shows that **54% of student outcomes are explained by collaboration**. This suggests that better cooperation between parents and teachers leads to improved student performance and behaviour.

Table 4.3: Influence Parent Teacher Collaboration on Student’s Outcomes

Predictor Variable	Beta (β)	R ²	t-value	p-value
Parent-Teacher Collaboration	0.58	0.54	7.10	0.000

Table 5: Hypotheses Results Summary

Hypothesis	Statement	Result
H ₁	Leadership → Collaboration	Accepted
H ₂	Collaboration → Student Outcomes	Accepted

Findings of the Study

Based on the statistical analysis of data collected from principals, teachers, and parents in public primary schools of District Malakand, the following major findings were obtained:

The descriptive results showed that **principal leadership skills are at a high level (M = 3.85)**, indicating that principals are perceived as effective in their leadership roles. While Parent-teacher collaboration was found to be moderately high (M = 3.70), showing that cooperation between parents and teachers exists but can still be improved. Likewise, Student outcomes (M = 3.65) were also at a moderate level, indicating satisfactory academic and behavioral performance of students. Regression analysis revealed that principal leadership skills have a significant positive influence on parent-teacher collaboration ($\beta = 0.68, p = 0.000$). Similarly, Parent-teacher collaboration was found to have a significant positive impact on student outcomes ($\beta = 0.58, p = 0.000$). Therefore, all hypotheses of the study were accepted, confirming the positive relationships among variables.

Discussion of Findings

The findings of the study clearly indicate that principal leadership skills play a crucial role in strengthening parent-teacher collaboration in primary schools. This supports the idea that effective leadership improves communication, coordination, and mutual involvement between school stakeholders. The strong positive relationship between leadership and collaboration suggests that principals who are more active, supportive, and communicative are able to build stronger partnerships with parents and teachers. This finding is consistent with educational leadership theories that emphasize the role of school leadership in improving school climate and

stakeholder engagement. Furthermore, the study found that parent-teacher collaboration significantly improves student outcomes. This shows that when parents and teachers work together, students benefit academically and behaviourally.

Conclusion

It is concluded that principal leadership skills are a significant determinant of parent-teacher collaboration in public primary schools of District Malakand. Effective leadership promotes better coordination and communication between parents and teachers. Moreover, parent-teacher collaboration has a direct and positive influence on student outcomes, indicating that students perform better when there is strong cooperation between home and school. Therefore, it can be concluded that strong leadership not only improves school functioning but also indirectly enhances student achievement through improved collaboration among stakeholders.

Recommendations

Based on the findings of the study, the following recommendations are made:

Leadership Development Programs

The education authorities should organize regular training workshops for principals to enhance their leadership, communication, and decision-making skills.

Strengthening Parent-Teacher Collaboration

Schools should establish structured systems such as regular meetings, parent-teacher conferences, and communication platforms to enhance collaboration.

Improving School Communication System

Effective communication channels between parents and teachers should be developed to ensure continuous involvement in student progress.

Enhancing Student Support Programs

Schools should implement collaborative programs involving parents and teachers to support students' academic and behavioural development.

Future Research Direction

Future studies should include additional variables such as school environment, teacher motivation, and socio-economic factors to gain a deeper understanding of student outcomes.

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