

A Distributed Systems Perspective on School Culture: Examining Its Structural and Relational Impact on Teacher Performance

Dr Ijaz Ahmad ¹, Dr. Irum Jabeen ², Dr. Naseer Ahmad ³, Dr. Noreen Ayaz ⁴, Dr. Asghar Ali ⁵

¹ Assistant District Education Officer E&SE Department KP ijazsherpa@gmail.com

² Ph.D (Education) Principal Government Girls Higher Secondary School Kangra, Haripur

³ Postdoc-Education Department of Elementary and Secondary Education (E&SE), Khyber Pakhtunkhwa. E-mail: drnaseerahmad1979@gmail.com

⁴ Principal Government Girls High School Dingi Haripur Email: noreenamir1244@gmail.com

⁵ Deputy Controller of Exams, The University of Haripur asgharali@uoh.edu.pk (Corresponding Author)

DOI: <https://doi.org/10.70670/sra.v4i1.1934>

Abstract

The purpose of the study is to find the effect of school culture on secondary school teachers' performance. Similarly, the aim of the study is to identify various characteristics of school culture practiced at secondary level. Furthermore, to find the relationship between various aspects of school culture and secondary school teachers' performance. Population of the study comprised of 197 secondary schools of Khyber Pakhtunkhwa. A total of 118 secondary schools were selected as sample through stratified sampling technique along with four students from each school using homogenous sampling technique. Data regarding school culture and teacher performances were collected from school heads and students using two different questionnaires. Data were analyzed using mean and standard deviation, person correlation and regression analysis. It was found that delegation of responsibilities is a vital aspect of the school culture that greatly influences teachers' performance. Similarly, Cooperation and appreciation are other dimensions that positively influence schools' culture. The analysis shows that the school culture of public and private secondary schools does not differ significantly. It was recommended delegation of responsibilities and Cooperation may be initiated in all schools to enhance teachers' performances. Similarly, a culture of peace, respect and appreciation can be fostered in order to create a conducive learning environment."

Keywords: School culture, teachers' performances, distributed leadership.

Introduction

School culture plays a vital role in the success of students and teachers' performances. It not only influences teachers' actions but also shapes their decision-making processes and professional viewpoints. Freiberg (1998) compared school culture to the "air we breathe" (p.17). A positive school culture motivated teachers to improve their performances because it positively influences the teaching and learning process (Hansen and Childs, 1998). It is often acknowledged that paying attention to school culture is one of the core responsibilities of a principal. School leaders indirectly influence teachers' performances and mostly through motivation, commitment and working condition (Leithwood et al , 2007). Similarly, Hallinger and Heck (1998) explained that the school leader

influences students' accomplishments indirectly through the school climate and culture. According to research, all successful school leaders prioritize school culture and establish a conducive learning atmosphere for boosting teachers' performances. According to Hunt (2009), "teachers will perform effectively and students will learn in accordance with our expectations if the school provides a clear vision, instructional leadership, and a safe and conducive environment"(p,13). Finding out how school culture affects teachers' performance in Khyber Pakhtunkhwa's secondary schools was the main goal of this study. The aspects of school culture examined in this study are delegation of responsibilities, Cooperation and appreciation and were used to compare these institutions.

Study Objectives

The following research objectives are formulated to investigate the problem

1. To identify and categorize the structural and relational dimensions of school culture in secondary schools.
2. To examine the relationship between school culture and teachers' performance at the secondary level.
3. To analyze the impact of school culture on teachers' performance.
4. To compare the structural and relational characteristics of school culture in public and private secondary schools.

Research Questions

Research questions of the study are as follow:

1. What are the key structural and relational dimensions of school culture practiced in secondary schools?
2. What is the relationship between school culture and secondary school teachers' performance?
3. How does school culture influence teachers' performance at the secondary level?
4. Is there a significant difference between public and private secondary schools in terms of their school culture?

Significance of the Study

The goal of our educational system is to develop students for a sustainable future and teachers play the most important role in this development. Therefore, their performance matters. The finding of this study might help the principals to make strategy to interact with all members including teachers to shape a conducive learning environment for better performance. For policy maker, these findings might help in promoting a positive school culture, which can influence teachers' performance.

Literature Review

School Culture

The success of a school depends on its culture. It has an impact on instructors' feelings and interactions with other educators in addition to their behavior. Relationship between teachers and other stakeholders, such as students and the community, is an important aspect of any school culture. This not only enhance teachers' effectiveness but also school's general atmosphere. The culture of any school influences the attitudes, behaviors, and choices of both teachers and pupils, (Peterson & Deal, 1998). Research indicates that a positive culture necessitates paying particular attention to the performance of both teachers and pupils.

From a distributive leadership perspective, some aspects of school culture are as under,

- i) Cooperation: It is essential to a successful school environment and is a key component of a strong school culture. Collaboration between teachers and the administration is present in a positive school environment (Stoll, 1998). Teachers exchange ideas, resources, and assistance in resolving issues in a collaborative learning environment. By doing these things, they perform better and make the school exam more enjoyable. Likewise, in a cooperative school culture, there is a common sense of purpose

and high expectations for students' learning (Peterson & Deal, 1998).

ii) Appreciation: This quality is a hallmark of a positive school culture and is crucial to its enhancement. Teachers are encouraged when their achievement is appreciated (Maye, Henkin & Egley, 2005).

iii) Delegation of Authority: Allocating leadership duties is crucial to fostering a positive school culture (Spillane, 2006). Shared leadership results from having a common vision, goals, and commitment. Teachers perform better as a result of this delegation. Professional development is enhanced and schools achieve greater success when more people participate in leadership activities and the decision-making process (Bogler & Nir, 2012). Teachers get more involved and assess their performance as a result of this delegation (Vernon Dotson & Floyd, 2012).

Teacher Performance and School Culture

For teachers' performances, school culture is very important and acts as a catalyst. It is not a good indication for a school when there is not a proper school culture (Freiberg, 1998). A positive school culture enhances teacher performance because teachers are motivated by invitational environment (Hinde, 2004). A culture of respect and recognition makes the school an attractive and supportive place (Peterson & Deal, 1998; Hansen & Childs, 1998). A Positive school culture possesses the characteristics of; i) Sharing sense of purpose ii) Teacher innovation iii) Storytelling of heroes and heroines for supporting iv) Giving joy and success. While a negative school culture can make the school environment dull and unattractive. It badly affects teaching learning process. It also affects interaction, communication and communication among school staff (Peterson & Deal, 1998). In such environment, school staff do not take interest in school affairs. This thing is greatly felt by newcomer teachers (Gruener, 2008). According to Gruener (2008), School culture is greatly influenced by the school head and therefore, school head indirectly affects students' performances.

School culture & Distributed Leadership

Most of leadership theories on individual skills. However, current research shows that one individual alone cannot lead a school to success (Friedman, 2002). Especially in schools, where leaders play different roles and are unable to communicate with each individual due to their complex role. (Nhundu, 1999). At the beginning of the new millennium, the concept of distributed leadership gained widespread attention from researchers and policymakers. Spillane (2006) define distributed leadership as the "collaboration between school leaders, teachers and situation" (p. 26). The main message of distributed leadership is to delegate authority and involve as many people as possible in the decision-making process. Research indicate that delegation of authority is used to recognize teacher performance (Bogler & Nir, 2012). Distributed leadership encourages collaboration among teachers and leaders and allows them to assess their school culture (Vernon Dotson & Floyd, 2012). Sharing the leadership responsibilities increases teachers' commitment and organizational citizenship behavior and job satisfaction (Bogler & Somech, 2004; Meng & Han, 2013). In distributed leadership, leaders prioritize teachers' opinions and value their efforts. According to Hollingworth (2012), this approach fosters professional learning communities, contributing to the professional development of the teachers. It also plays a vital role in shaping a positive school culture; as Hokanson (1999) indicated that delegation of authorities and involving a larger number of individuals in decision-making contributes significantly to building a successful school culture.

Research Methodology

This research aims to evaluate the impact of school culture on teacher performance in public and private secondary schools in Khyber Pakhtunkhwa province. A quantitative approach was adopted to answer the research questions. Two questionnaires were used to collect data: the first

surveyed school principals' opinions on various aspects of school culture, while the second questionnaire was designed for students to evaluate their teachers' performance across five key areas: pedagogical skills, classroom management, student achievement, interpersonal relationships, and professional responsibilities.

Population

The Population included all 197 high school principals, including 78 principals in government schools and 119 principals in private schools, along with all the tenth-graders enrolled in these schools during the 2022-2023 academic year in Khyber Pakhtunkhwa province.

Sample

To minimize the margin of error, a representative sample of secondary schools was selected. Stratified random sampling was used to select 60% of the schools to gather feedback from their principals, while homogeneous purposive sampling was used to select four students from each of the selected schools. The resulting sample size consisted of 118 principals (47 from public schools and 71 from private schools) and 482 tenth-grade students (188 from public schools and 284 from private schools).

Data analysis was conducted using SPSS version 21, employing methods such as calculating means, standard regressions, Pearson correlation coefficients, multiple regression, and t-tests to ensure accurate and reliable results

Ethical Considerations

In order to get full cooperation of the respondents, they were told confidentially that their views will be kept in secrete and that the data will be used only for research purpose only and should be destroyed after the study. Moreover, the name of the students or teachers will never be displayed at any forum and that their responses will be coded and this coded response will be included in the study. Students were encouraged to respond truthfully and honestly as their views will be used only for research purpose and no one will be allowed to get these data.

Delimitation

The study was delimited to:

- 1) Only boys' secondary schools (public and private).
- 2) District Charsadda.
- 3) Boy Students of class ten.

Data Analysis

The analysis in Table 1 shows that secondary schools in Khyber Pakhtunkhwa province have an organizational culture based on respect, appreciation, and support. Principals of these schools reported that they promote collaborative practices within their institutions (mean = 3.32, standard deviation = 1.57) by providing available resources for teachers, supporting their professional performance, adopting a shared vision, and encouraging their participation in decision-making.

Both the mean (3.22) and the standard deviation (1.70) indicate that school principals not only appreciate and encourage staff, but also support teachers and give tangible value to their efforts, while emphasizing the principle of mutual respect among all members of the educational institution.

Furthermore, the high mean (4.20) demonstrates that principals do not rely solely on their personal experience in managing the school but adopt a participatory approach based on distributing responsibilities, valuing teachers' opinions, and actively involving them in decision-making processes.

Table1:
Mean and Standard Deviation of School Culture

Characteristics of school culture	Public Schools		Private Schools		Over all	
	Mean	SD	Mean	SD	Mean	SD
Collaboration	3.35	1.47	3.30	1.67	3.32	1.57
Recognition	3.37	1.66	3.20	1.73	3.22	1.70
Distribution of Authority	4.32	0.65	4.12	0.76	4.20	0.77

The results showed a positive correlation between all dimensions of school culture and teacher performance, the delegation of authority dimension registering the highest correlation with performance, followed by the cooperation and appreciation dimensions (see Table 2). Correlation analysis showed a statistically significant moderate relationship between school culture and teacher performance, with a correlation coefficient ($r = 0.64$) at the significance level ($p = 0.000$), indicating that promoting school culture is closely related to improving teacher performance.

Table2:
Correlation Analysis

		Cooperation	Appreciation	Delegation of Authority	Teachers Performances
School. Culture	Pearson Correlation	.857**	.799**	.881**	.649**
	Sig. (2-tailed)	.000	.000	.000	.000
	N	118	118	118	118
Cooperation	Pearson Correlation		.598**	.609**	.541**
	Sig. (2-tailed)		.000	.000	.000
	N		118	118	118
Appreciation	Pearson Correlation			.534**	.419**
	Sig. (2-tailed)			.000	.000
	N			118	118
Delegation of Authority	Pearson Correlation				.609**
	Sig. (2-tailed)				.000
	N				118

(**. Correlation is significant at the 0.01 level (2-tailed).)

The regression analysis revealed that school culture is a crucial predictor of teacher performance. Teacher performance was treated as the dependent variable, while the dimensions of school culture—collaboration, appreciation, and distribution of authority—were the independent variables. The statistical results (adjusted coefficient of determination = 0.44, $F(117) = 31.65$, and $p = 0.000$) indicate that approximately 44% of the variance in teacher performance can be explained by the nature of the prevailing school culture, reflecting the profound influence of the organizational environment on teachers' professional practices.

When examining the different aspects of school culture, the distribution of authority ($\beta =$

0.503) emerged as the strongest predictor of improved teacher performance, highlighting the importance of empowering teachers with greater decision-making authority and responsibility. Following closely in terms of impact is the collaboration dimension ($\beta = 0.225$), which reflects the role of teamwork and knowledge sharing in enhancing professional competence. Next is the appreciation dimension ($\beta = 0.117$), which confirms that the feeling of recognition and respect, while important, is less significant compared to other factors.

Table 3
Effect of school culture on teachers' performance

Model	Un-standardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	55.443	8.894	-----	6.234	1.000
Cooperation	2.199	.939	.224	2.343	.021
Appreciation	.191	1.030	.117	1.186	.033
Delegation of Authority	3.783	.681	.503	5.559	.000

adjusted $R^2=.44$; $F(117) = 31.65, p=.000$

With 116 degrees of freedom and a p-value of 0.506, exceeding the significance level of 0.05, the t-test value of 0.666 indicates no statistically significant difference between the mean scores of public and private high schools in Charsadda District regarding school culture. The t-test was used to compare the cultures of public and private high schools from the perspective of participative leadership, with the mean score for public high schools being 32.85 and the mean score for private high schools being 33.32, as shown in Table 4.

Table4:
T-Test Analysis

Sectors	N	Mean	SD	t-value	Df	Sig.(2-tailed)	Mean difference
Public	47	32.85	3.82	.666	116	.506	.472
Private	71	33.32	3.74				

Findings

All schools are characterized by a culture based on trust, respect, and cooperation among their members., acknowledgment, and support, according to the mean score for secondary schools (public and private) (3.35). The results indicate a statistically significant moderate relationship between teacher effectiveness and school culture, with a correlation coefficient of ($r = 0.64, p = 0.000$). Teachers' performance was found to be significantly impacted by school culture (Adjusted "R" ^ "2" =.44, $F(117) = 31.65, p=.000$). With a $\beta=.503$, the distribution of authority has been identified as the best predictor. It was discovered that the cultures of public and private secondary schools did not differ significantly (Independent- $t(116) =.66, p =.50 >.05$).

Discussion

The focus of this study was to describe the cultural variables and to investigate its effect on teachers' performance in secondary schools (public and private) of Khyber Pakhtunkhwa from a

distributed leadership perspective. The descriptive statistic in table 1 shows that according to school principals, they did not depend entirely on their own expertise and the leadership responsibilities are widely distributed with teachers to improve their performance by creating a culture of trust and respect which are similar to Heller and Firestone (1995) and Spillane (2006) findings. Similarly, Mcleskey and Waldron (2010) finding shows that sharing leadership responsibilities increases teachers' trust which can lead them to better performance. The schools principals also believe that they encourage a collaborative school culture. Because teachers' works are supported and they can take part in decision-making process. This result is supported by Hulpia and Devos (2009) finding. Results also show that teachers' work is recognized and they are supported at risk. It is similar to Mangin (2007) finding that teachers' leaders are most successful when school leaders support and recognize their work. The correlation analysis shows that there is significant relationship between school culture and teachers' performance. This result confirmed the finding of Werang and Lena (2014), Babu (2013) and Selamat, Samsu, and Kamalu (2013) that school culture can affect teachers' performance. Correlation analysis reveals that the delegation of authority is the most influential factor in school culture on teacher performance, followed by both cooperation and appreciation. These findings are confirmed by the multiple regression analysis that distribution of authority explains 50% of variance in teachers' performance, 22.4% by collaboration and recognition explain only 11.7%. It concludes that a positive school culture could improve teachers' performance. The t-test analysis indicates that public and private high schools are adopting a similar culture of respect, appreciation, and cooperation, which fosters a positive learning environment

Conclusion

Based on the findings, it is clear that school culture has a significant impact on improving teacher performance. Therefore, it is recommended that secondary school principals pay particular attention to fostering and strengthening a positive school culture that supports the educational work environment. School leaders can also contribute to building a climate of mutual respect and appreciation, which will enhance the effectiveness of the educational process and improve its outcomes.

Furthermore, it is suggested that similar studies be conducted in other areas of Khyber Pakhtunkhwa province to generalize the findings and increase their applicability. It is also advisable to expand the scope of the research to include different categories of teachers, including female teachers, to gain a more comprehensive and accurate view of the impact of school culture on educational performance.

Future Research

1. **Geographic Expansion of Studies:** Similar studies should be conducted in other districts and regions of Khyber Pakhtunkhwa to enhance the generalizability and reliability of the findings.
2. **Involving Diverse Groups of Teachers:** Future studies should include female teachers and diverse demographic groups to provide a more comprehensive and accurate understanding of the impact of school culture.
3. **Exploring Additional Variables:** Researchers can investigate other influential factors such as leadership styles, teacher motivation, job satisfaction, and student outcomes.
4. **Future studies should employ mixed research methods (quantitative and qualitative) to gain deeper insights into how school culture functions in different contexts.**

References

Babu. (2013). Organizational climate as a predictor of teacher effectiveness. *European Academic Research*, 1(5), 553-568.

- Bogler, R., & Nir, A. E. (2012). The importance of teachers' perceived organizational support to job satisfaction: What's empowerment got to do with it? *Journal of Educational Administration*, 50(3), 287-306.
- Bogler, R., & Nir, A. E. (2012). The importance of teachers' perceived organizational support to job satisfaction: What's empowerment got to do with it? . *Journal of Educational Administration*, 50(3), 287-306.
- Bogler, R., & Somech, A. (2004). Influence of teacher empowerment on teachers' organizational commitment, professional commitment and organizational citizenship behavior in schools. *Teaching and Teacher Education*, 20(3), 277-289.
- Freiberg, H. J. (1998). Measuring school climate: Let me count the ways. *Educational Leadership*, 56(1), 22-26.
- Friedman, I. (2002). Burnout in school principals: Role related antecedents. *Social Psychology of Education*, 5, 229–51.
- Fullan, M. (2001). *Leading in a culture of change*. San Francisco: Jossey-Bass.
- Gruener, S. (2008). School culture and climate, they are not the same thing. *educational leadership*, 56-59. Retrieved from <http://www.naesp.org>
- Hallinger, P., & Heck, R. (1998). Exploring the principal's contribution to school effectiveness: 1980-1995. *School Effectiveness and School Improvement* (9), 157-191.
- Hansen, J. M., & Childs, J. (1998). Creating a school where people like to be. *Educational Leadership* , 1(56), 14-17.
- Heller, M. F., & Firestone, W. A. (1995). Sources of leadership for change in eight schools. *Elementary School Journal*, 96, 1, 65-86.
- Hinde, E. R. (2004). School culture and change: An examination of the effects of school culture on the process of change. *Essay in Education*, 11.
- Hokanson, H. J. (1999). Organizational culture and faculty use of empowering teaching behaviors in selected schools of nursing. *Nursing Outlook*, 47(2), 67-73.
- Hollingworth, L. (2012). Why leadership matters: Empowering teachers to implement formative assessment. *Journal of Educational Administration*, 50(3), 365-379.
- Hulpia, H., & Devos, G. (2009). Exploring the link between distributed leadership and job satisfaction of school leaders. *Educational Studies*. doi:10.1080/03055690802648739
- Hunt, B. C. (2009). *Teacher Effectiveness: A Review of the International Literature and Its Relevance for Improving Education in Latin America*. (Washington, DC: PREAL).
- Leithwood, K. A. (1992). The Move Toward Transformational Leadership. *Educational Leadership*, 49(5), 8-12.
- Leithwood, k., Day, C., Sammons, p., Harris, A., & Hopkins, d. (2007). *Seven strong claims about successful school leadership*. Nottingham: National College for School Leadership (Department for Education and Skills).
- Leithwood, K., Louis, K. S., Anderson, S., & Wahlstrom, K. (2004). Review of research: how leadership influences student learning. wallacefoundation. Retrieved from www.wallacefoundation.org/NR/rdonlyres/E3BCCFA5-A88B-45D3-8E27-973732283C9/0/Review
- Littleford, A. R. (2007). *Principal leadership and its perceived influence on teacher morale in elementary schools*. East Tennessee State University. [Online] Available at: <http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=0CCwQFjAA&url=http%3A%2F%2Fdc.etsu.edu%2Fcgi%2Fviewcontent.cgi%3Farticle%3D3499%26context%3Ddtd&ei=KWpEU9CSGsmOrgfYr4D oCQ&usg=AFQjCNGJbUCn0E1L-9n3S5AKOYGIQhnSZw&bvm=bv.64507335,d.bmk>

- Mangin, M. (2007). Facilitating elementary principals' support for instructional teacher leadership. *Educational Administration Quarterly*, 43, 319–357.
- McLeskey, J., & Waldron, N. L. (2010). Establishing a collaborative school culture through comprehensive school reform. *Journal of Educational and Psychological Consultation*, 20, 58-74.
- Meng, B., & Han, H. (2013). The effects of empowerment on employee psychological outcomes in upscale hotels. *Journal of Hospitality Marketing & Management*, 23(2), 218-237.
- Moye, M. J., Henkin, A. B., & Egley, R. J. (2005). Teacher-principal relationships: Exploring linkages between empowerment and interpersonal trust. *Journal of Educational Administration*, 63(3), 260-277.
- Nhundu, T. (1999). Determinants and prevalence of occupational stress among Zimbabwean school administrators. 43) Nhundu, T.J. 1999. Determinants and prevalence of occupational stress. *Journal of Educational Administration* 37, 256–72.
- Peterson, K., & Deal, T. (1998). How leaders influence the culture of schools. *Educational Leadership*, 56(1), 28-30.
- Selamat, N., Samsu, N. Z., & Kamalu, N. S. (2013). The impact of organizational climate on teachers job performance. *Educational Research*, 1(2). Retrieved from <http://www.erej.ua.es/rdd/article/view/51/39>
- Spillane, J. P. (2006). *Distributed Leadership* (1st Ed.). San Francisco: Jossey-Bass.
- Stoll, L. (1998). school culture. *School Improvement Network's Bulletin*, Institute of Education, University of London.
- Vernon Dotson, L. J., & Floyd, L. O. (2012). Building leadership capacity via school partnerships and teacher teams. *The Clearing House*, 85(1), 38-49.
- Werang, B. R., & Lena, L. (2014). Relationship between principal's leadership, school organizational climate, and teachers' job performance at state senior high schools in Merauke regency – Papua – Indonesia. *International Journal of Education and Research*, 2(6), 635-640.