



Recognized by: Higher Education Commission (HEC), Government of Pakistan

Measuring the Impact of Prevailing Professional Development Practices on the Effectiveness of School Educational Leadership

Dr. Shakeela Shah

Assistant Professor, Faculty of Education, University of Sindh, Pakistan

Shakeela@usindh.edu.pk

Rameez Nasir*

Principal, The New School, Model Town, Lahore, Punjab, Pakistan

Rameeznasir346@gmail.com

Dr. Ijaz Ahmad Tatlah

Associate Professor, Division of Education, University of Education, Lahore, Punjab, Pakistan

tatlah@ue.edu.pk

***Corresponding Author**

ABSTRACT

The study has been conducted under Positivist paradigm while using Quantitative approach. There were 102 school heads including male and female and also representative of urban and rural areas from Punjab School Education Department selected with Stratified sampling. The data were collected with the help of a five points Likert's rating scale comprising 26 items under four categories: Relevancy of PD; Improvement in Knowledge and Skills; Applicability; Impact on Educational leadership. The questionnaire was bearing Cronbach's Alpha .85 considered to be highly reliable. The data were analyzed with the help of Mean scores and Independent Sample t-test. The study revealed that while professional development (PD) programs positively contribute to school leadership, female and urban school heads perceive them as more relevant, applicable, and satisfying than male and rural counterparts. PD initiatives should be redesigned with gender-sensitive and context-specific strategies to better address the needs of male and rural school heads.

Keywords: School Leadership, Theory & Practice, Educational Leadership

INTRODUCTION

Educational leaders' roles have undergone notable changes in the age of internationalization, largely due to varied expectations and goals of education stakeholders. This has amplified the necessity for the continuous professional growth of educational leaders to effectively carry out their duties (Hallinger, 2018). Given that educational leaders exert a substantial influence on molding school culture, enhancing school performance, fostering student learning and driving achievement (Chekdzi, 2023). The ongoing enhancement of their professional competencies stands as a pivotal factor in sustaining their leadership effectiveness. Educational leaders participating in professional development initiatives enhance and broaden their expertise to implement educational strategies within educational institutions (Edmonds & Kennedy, 2017).

Continual professional development stands as a cornerstone for educational leaders, essential for enhancing both institutional performance and student outcomes. However, the task of devising and orchestrating effective professional development initiatives presents a formidable challenge. Research underscores that the leadership strategies employed by school administrators wield considerable influence overall school achievement (Lambrecht et al., 2022). Thus, school leadership significantly impacts the implementation of inclusive education and students' learning outcomes (Leithwood et al., 2020). Proficient professional development programs aimed at grooming capable educational leaders, as essential for enhancing school performance (Ko et al., 2016).

The rapid advancements in science and technology have introduced new facets to the realms of cultural, economic, political and social domains. Corporations are actively pursuing skilled and well educated professionals equipped with up to date knowledge and expertise in their respective fields (Khan et al, 2017).

Schools are facing growing need to showcase the advancements of their students as learners in the twenty-first century. To fulfill these demands, there is requirement for a new breed of instructional leaders capable of bringing about necessary changes in schools (Leoroy, 2020). Educational leadership really influences performance of the school. This influence becomes great if teaching and learning is focused. Therefore, school principals directly influence the capacities of schools and indirectly contribute to the development of students (Lambrecht et al., 2020). Ensuring the continuous and sustainable professional development of school principals' post their initial appointment is crucial to maintaining ongoing positive impacts. Pretomode (2019) expands on the importance of professional development for school principals, highlighting its role in enabling them to acquire knowledge, skills, attitude, and values that extend well beyond their individual school contexts. It also helps them to know about latest technological advancements.

According to Hussin & Abri (2015) school educational leaders' professional development help them to manage change in education and to have necessary skills and knowledge within the framework of educational reform. The ongoing improvement and learning of school heads play a crucial role in fostering teacher

and student learning, implementing policies and nurturing positive and supportive school communities. Tingle et al., (2017) underscore the importance of training programs targeting human resources, school culture, and executive leadership, strategic operations, fostering peer relationships, and receiving supervisor support. Noteworthy examples of professional development programs for school leaders are evident in different countries. According to Rowland in USA The Research and Development (RAND), McREL' Balanced Leadership program George W. Bush Institute and National Institute for School Leadership's Executive Development Program provide educational leaders virtual training and workshops which has given positive outcome. Moreover, The Wallace Foundation situated in New York City, offers top-notch training programs in school leadership designed for teachers, accomplished educators and assistant principals. In UK, the National College for School Leadership administers a four-year course dedicated to the professional grooming of educational leaders.

Nevertheless, the demand persists for professional development programs that are more sustainable. Training sessions might include workshops focusing on collaborative inquiry, action plans, field practices, case study analysis, group discussions, self-directed learning, and individual feedback on performance. Promoting effective changes relevant to local school leadership practices can be challenging due to the variations in educational systems and policies. Leadership training programs usually miss those important links with school practices; eventually it affects school performance (Taherdoost, 2022). As education plays a crucial role in societal advancement, educational leaders serve as pivotal figures responsible for facilitating it. Generally, they are held responsible for students' academic success (Smith & Smith, 2020).

The light is shed on the importance effective and result oriented professional development. Educational leaders worldwide share responsibilities outlined by their respective Ministries of Education and governments. While these responsibilities may exhibit similarities, differences arise based on factors such as school size, type, location and country. Fresh entrants in profession and experienced school heads have different needs due to variations in management levels, communication skills, technological proficiency and curriculum understanding. Additionally, school present diverse needs influenced by demographic structures, students' academic achievement levels, teacher experience and parental involvement. In the light of existing literature educational leaders require (Shabbir et al., 2014).

Best practices in educational leadership and professional development emphasize transparent recruitment criteria, clearly defined roles and responsibilities, regular training needs assessment, collaboration with universities and professional associations, and ongoing program evaluation. Professional development of school educational leaders typically is consisted on workshop style training where one size fits all content is delivered lacking critical feedback and follow up (Ryan, 2018).

Concern regarding quality and purposeful training has been increased with the passage of time. Edmonds & Kennedy (2017) in another research paper say that

professional development programs' content are not aligned with candidate needs. Thus, principals need more comprehensive on job professional development to meet contemporary challenges regarding better teaching and learning process.

Historically early education training primarily concentrated on knowledge expansion. However, today the emphasis has shifted towards cultivating the competencies and skills of participants, recognized as critical to success. Moreover, the advent of technology has fundamentally transformed the landscape of professional development in education globally. Both providers and recipients of training now acknowledge the paramount importance of the quality of professional development in education. Consequently, training and development programs are tailored to align with future objectives of educational institutions (Hargreaves & Fullan, 2015). It is emphasized that school principals must enhance the quality of teaching and learning in both present day and future educational settings. It is highlighted that formal organizational networks and personal professional networks serve as valuable sources of professional growth for principals and educational administrators, contributing to the capacity development of educational leaders (Shabbir et al., 2014).

It is a fact that skilled and well trained school leaders can manage their schools successfully. Factors such as school leadership and instructional leadership exert a more substantial influence on the academic success of educational institutions than any other single element Edmonds & Kennedy (2017). As we see our public sector schools are not performing, the way they should be. Keeping in view the key role of school head in success of the schools, there is a need to know the professional development of educational leadership at school level. Therefore, this study aims to explore professional development of educational leaders along with identification of gap between professional development activities and practices on ground.

Statement of the Problem

The professional development of school educational leaders is crucial for enhancing school culture, performance, and student learning outcomes. Despite the recognized importance of continuous professional growth, there is a notable discrepancy between the theoretical frameworks of professional development and the actual practices observed on the ground. Specifically, in Muzaffarabad, the effectiveness of current professional development programs for educational leaders remains underexplored. This gap raises concerns about whether these programs are adequately addressing the evolving needs of educational leaders, given the rapid advancements in science, technology, and educational reforms. The alignment of professional development initiatives with the practical demands of school leadership is critical for ensuring the sustainable impact of educational leaders on their institutions. Therefore, this study aims to investigate the current status of professional development for educational leaders in Muzaffarabad, examine the alignment of these programs with practical leadership needs, and identify gaps

between professional development activities and actual leadership practices.

METHODOLOGY

This has been conducted to investigate the professional development of school educational leadership in comparative context of prevailing theory and practices. The study has been conducted under Positivist paradigm while using Quantitative approach. There were 102 school heads including male and female and also representative of urban and rural areas from Punjab School Education Department selected with Stratified sampling. The data were collected with the help of a five points Likert's rating scale comprising 26 items under four categories: Relevancy of PD; Improvement in Knowledge and Skills; Applicability; Impact on Educational leadership. The questionnaire was validated through experts' opinion and was pilot tested for ensuring the reliability which was Cronbach's Alpha .85 considered to be highly reliable.

Data Analysis & Results

The data were analyzed with the help of Mean scores and Independent Sample t-test. The detail is as under:

Table 1 Detail of Participants (School Head)

Participant	Number
Female (Rural)	26
Male (Rural)	23
Female (Urban)	28
Male (Urban)	25
Total	102

It is seen that there were 26 Female school heads from rural and 28 from urban area. Similarly, there were 23 male school heads from rural and 25 from urban area.

Relevancy of the PD

School heads were asked through 3 different items whether the professional development provided them was relevant to their role, needs and challenges. Their opinion is presented here.

Table 2 Relevancy of PD

Factor		Gender		Location	
		Female	Male	Rural	Urban
Relevancy with School Heads' Role	Mean	4.50	3.73	4.29	4.00
	N	54	48	49	53
	Std. Deviation	.50	1.26	.57	1.28
Relevancy with current trends and challenges	Mean	3.50	2.15	2.49	3.21
	N	54	48	49	53
	Std. Deviation	1.17	.96	.96	1.43
Relevancy with School Heads' needs	Mean	4.37	3.31	3.84	3.91
	N	54	48	49	53
	Std. Deviation	.68	1.09	.80	1.22

The above table shows that school heads are of the view that provided professional development opportunities is relevant to their roles. The mean score of male school heads' responses is slightly lower than females which means male participants don't consider PD as much relevant as female participants. The mean score on items measuring the relevancy of PD with current trends and challenges shows that participants are of the view that PD provided to them is relevant to the current trends and challenges. This trend is more visible in male school heads and school heads serving in rural areas. School heads consider PD relevant to their needs to some extent except Female School Heads who are more satisfied.

Improvement in Knowledge and Skills through PD

School heads were asked whether Professional Development opportunities provided them could enhance their knowledge and skills or not. Mean score across their responses is given below.

Table 3 Improvement in Knowledge and Skills through PD

Factor		Gender		Location	
Improvement in Knowledge	Mean	Female	Male	Rural	Urban
	N	4.56	4.42	4.41	4.57
	Std. Deviation	54	48	49	53
Improvement in Leadership skills	Mean	.502	.498	.497	.500
	N	4.56	4.42	4.45	4.53
	Std. Deviation	54	48	49	53
Management Skills	Mean	.502	.498	.503	.504
	N	4.48	4.35	4.39	4.45
	Std. Deviation	54	48	49	53
Cooperative learning environment in school	Mean	.504	.483	.492	.503
	N	4.41	3.44	3.86	4.04
	Std. Deviation	54	48	49	53
Planning for school improvement	Mean	.630	.741	.645	.980
	N	4.59	3.88	4.35	4.17
	Std. Deviation	54	48	49	53
Self-development through continuous learning	Mean	.496	.703	.522	.826
	N	4.52	4.19	4.31	4.42
	Std. Deviation	54	48	49	53
Communication skills	Mean	.504	.607	.652	.497
	N	4.44	4.19	4.39	4.26
	Std. Deviation	54	48	49	53
		.502	.734	.533	.711

Resource allocation to pursue school goals	Mean	4.41	4.29	4.22	4.47
	N	54	48	49	53
	Std. Deviation	.659	.651	.771	.504
School Discipline	Mean	4.37	4.29	4.27	4.40
	N	54	48	49	53
	Std. Deviation	.487	.544	.531	.494

Mean score of responses given across all items measuring improvement in knowledge and skills through PD showing that school heads have opinion that PD contributed well to improve their knowledge and skills either its management skills, communication skills, leadership skills, maintaining school discipline. Mean score of Female School Heads' responses is higher than Male School Heads which indicates that Female Heads consider PD more significant in improving their skills and knowledge.

Applicability

Applicability is another factor which was measuring effectiveness of PD. School Heads were asked whether the things taught in PD were applicable during practice as school head.

Table 4 Applicability

Factor	Gender		Location		
		Female	Male	Rural	Urban
Applicability in daily school affairs	Mean	3.94	2.69	3.18	3.51
	N	54	48	49	53
	Std. Deviation	.787	.854	.808	1.187
Effective in resolving school issues	Mean	4.00	3.71	3.59	4.11
	N	54	48	49	53
	Std. Deviation	.911	.504	.788	.640
Networking with other school heads	Mean	3.76	3.56	3.43	3.89
	N	54	48	49	53
	Std. Deviation	.950	.649	.866	.725

Looking at above mentioned mean score, it is clear that most of the participants rated items related to applicability of PD average. Male school heads are of the view that concepts taught through PD are less applicable or difficult to apply in daily school matters. School heads working in urban schools find PD content more applicable than those serving in rural areas.

Impact on Educational Leadership

Opinion of the school heads was taken on professional development trainings' impact on educational leadership. Mean score of their responses are given below.

Table 5 Impact on Educational Leadership

Factor		Gender		Location	
		Female	Male	Rural	Urban
Performance as educational leader	Mean	4.57	4.15	4.39	4.36
	N	54	48	49	53
	Std. Deviation	.499	.505	.492	.591
Leading learning process	Mean	4.52	4.25	4.45	4.34
	N	54	48	49	53
	Std. Deviation	.504	.565	.503	.586
Organizational vision	Mean	4.35	3.65	3.96	4.08
	N	54	48	49	53
	Std. Deviation	.619	.785	.676	.874
Instructional leadership	Mean	4.22	4.46	4.29	4.38
	N	54	48	49	53
	Std. Deviation	.502	.504	.677	.489
Understanding individual learning differences	Mean	4.39	3.79	3.98	4.23
	N	54	48	49	53
	Std. Deviation	.712	.582	.777	.640
Professional development of staff	Mean	4.28	3.75	3.86	4.19
	N	54	48	49	53
	Std. Deviation	.685	.636	.707	.640
Assessment of staff and provision of constructive feedback	Mean	4.44	4.06	4.18	4.34
	N	54	48	49	53
	Std. Deviation	.502	.633	.697	.478
Seeking parent involvement to support learning	Mean	3.85	3.56	3.63	3.79
	N	54	48	49	53
	Std. Deviation	.833	1.029	.883	.988
Community collaboration	Mean	4.02	4.00	3.76	4.25
	N	54	48	49	53
	Std. Deviation	.714	.684	.662	.648
Maintaining purposeful teaching learning environment	Mean	4.39	4.10	4.18	4.32
	N	54	48	49	53
	Std. Deviation	.492	.692	.727	.471

Mean score across different items to measure to impact of Professional Development trainings on performance of school heads as educational leaders show that schools are of the opinion that PD have impacted their overall performance of educational leader. Mean score for involving parents to support learning is comparatively low than other factors. Mean score of male school heads' is less than female school heads though difference is little.

Satisfaction with professional development programs

Last item of the questionnaire was aimed to measure overall satisfaction of school heads with PD opportunities available for them. Summary of the mean score is here below.

Table 4.5 Satisfaction with professional development

Factor	Gender		Location	
	Female	Male	Rural	Urban
Satisfaction with PD				
Mean	4.17	2.44	3.47	3.25
N	54	48	49	53
Std. Deviation	.575	1.090	1.063	1.343

Male school heads are not satisfied with professional development initiatives. In contrast to this, Female school heads seem more satisfied with PD. School heads serving in rural areas are more satisfied than those of serving in urban schools according to mean score.

Table 6 Comparative Analysis of Male and Female Mean Scores Using Inferential Statistics

Group Statistics based on Gender

		Gender	N	Mean	Std. Deviation	Std. Mean	Error
Relevancy of PD	Female		54	4.12	.583	.079	
	Male		48	3.06	.952	.137	
Improvement in Knowledge and Skills	Female		54	4.48	.205	.028	
	Male		48	4.16	.185	.026	
Applicability	Female		54	4.35	.707	.071	
	Male		48	2.96	1.099	.123	
Impact on Educational Leadership	Female		54	4.30	.316	.043	
	Male		48	3.98	.255	.037	
Satisfaction with PD programs	Female		54	4.17	.575	.079	
	Male		48	2.44	1.090	.153	

The comparative analysis of male and female mean scores indicates notable gender-based differences in perceptions of professional development (PD). Female participants consistently reported higher mean scores across all dimensions. In terms of relevancy of PD, females (M = 4.12, SD = .58) rated it substantially higher than males (M = 3.06, SD = .95). Similarly, for applicability, females (M = 4.35, SD = .71) again outperformed males (M = 2.96, SD = 1.09), reflecting stronger recognition of PD's practical value among female respondents.

While both genders showed high agreement on improvement in knowledge and skills, females (M = 4.48, SD = .21) still rated PD more positively compared to

males (M = 4.16, SD = .19). A similar trend was found in perceptions of impact on educational leadership, where female participants (M = 4.30, SD = .32) scored higher than males (M = 3.98, SD = .26). The largest disparity was observed in satisfaction with PD programs: females (M = 4.17, SD = .58) expressed strong satisfaction, whereas males (M = 2.44, SD = 1.09) reported considerably lower satisfaction. These findings highlight that female participants perceived professional development initiatives as more relevant, applicable, impactful, and satisfactory compared to their male counterparts.

Table 7 Independent Sample t-test Result

	T	df	Sig. (2- taile d)	Mean Differen ce	Std. Error Differen ce	95% Confidence Interval of the Difference	
						Lower	Upper
Relevancy of PD	6.867	100	.000	1.06096	.15450	.75444	1.3674 7
	6.685	76.136	.000	1.06096	.15872	.74485	1.3770 6
Improveme nt in Knowledge and Skills	8.233	100	.000	.31944	.03880	.24246	.39643
	8.283	99.974	.000	.31944	.03857	.24293	.39596
Applicabil ity	10.19 4	176	.000	1.38861	.13622	1.1197 7	1.6574 4
	9.772	129.31 6	.000	1.38861	.14210	1.1074 7	1.6697 4
Impact on Educational Leadership	5.707	100	.000	.32662	.05723	.21307	.44017
	5.779	99.103	.000	.32662	.05652	.21448	.43876
Satisfaction with PD Programs	10.18 0	100	.000	1.72917	.16985	1.3921 8	2.0661 5
	9.844	69.347	.000	1.72917	.17565	1.3787 8	2.0795 5

Independent sample t- test was applied whether the difference of mean score between male and female is significant or not. A value of .000 suggests that there is a statistically significant difference between male and female groups' mean score about effectiveness of professional development programs. This indicates that there is a high level of confidence in the observed difference. It shows male and female school heads in Muzaffarabad perceive professional development opportunities differently. Higher mean score of female group across each factor indicates that PD they had got was more effective than male group.

CONCLUSION

It is concluded that school heads generally viewed professional development

(PD) programs as beneficial, yet their perceptions differed by gender and location. Female school heads consistently provided higher ratings than male school heads in terms of PD's relevance, its role in enhancing knowledge and skills, practical applicability, influence on educational leadership, and overall satisfaction. Additionally, urban school heads considered PD content more applicable compared to those in rural settings. Findings from the independent sample t-test confirmed that these gender differences were statistically significant, indicating a clear variation in perspectives.

Recommendations

It is recommended that although PD programs play a positive role in strengthening school leadership, their impact is not uniform, pointing to the necessity of designing PD initiatives that are both gender-sensitive and contextually responsive.

REFERENCES

- Chkheidze, S. (2023). Role of leader in educational management. *International Journal of Teaching, Education and Learning*, 7(2), 171–179. <https://doi.org/10.20319/pijtel.2023.72.171179>
- Edmonds, W., & Kennedy, T. (2017). Convergent-parallel approach. In *An applied guide to research designs: Quantitative, qualitative, and mixed methods* (2nd ed., pp. 181–188). SAGE Publications, Inc. <https://doi.org/10.4135/9781071802779>
- Hallinger, P. (2018). Bringing context out of the shadows of leadership. *Educational Management Administration & Leadership*, 46(1), 5–24. <https://doi.org/10.1177/1741143216670652>
- Hargreaves, A., & Fullan, M. (2015). *Professional capital: Transforming teaching in every school*. Teachers College Press.
- Hussin, S., & Abri, S. A. (2015). Professional development needs of school principals in the context of educational reform. *International Journal of Educational Administration and Policy Studies*, 7(4), 90–97. <https://doi.org/10.5897/IJEAPS2015.0411>
- Khan, A., Bano, S., Bano, S., & Khan, E. A. (2017). What makes principals more effective in Pakistan, training or organizational culture? *Journal of Research and Reflections in Education*, 2(2), 240–252.
- Ko, J., Cheng, Y., & Lee, T. H. T. (2016). The development of school autonomy and accountability in Hong Kong: Multiple changes in governance, work, curriculum, and learning. *International Journal of Educational Management*, 30(7), 1–21. <https://doi.org/10.1108/IJEM-02-2015-0013>
- Lambrecht, J., Lenkeit, J., Hartmann, A., Ehlert, A., Knigge, M., & Spörer, N. (2022). The effect of school leadership on implementing inclusive education: How transformational and instructional leadership practices affect individualised education planning. *International Journal of Inclusive Education*, 26(9), 943–957. <https://doi.org/10.1080/13603116.2020.1752825>

- Leithwood, K., Harris, A., & Hopkins, D. (2020). Seven strong claims about successful school leadership revisited. *School Leadership & Management*, 40(1), 5–22. <https://doi.org/10.1080/13632434.2019.1596077>
- Leoroy, R. (2020). What is the big deal about populations in research? *Progress in Transplantation*, 30(1), 3–4. <https://doi.org/10.1177/1526924819893795>
- Pretomode, V. F. (2019). Professional development needs of public and private secondary school principals in Delta State, Nigeria. *International Journal of Educational Administration*, 11(1), 7–21.
- Ryan, G. (2018). Introduction to positivism, interpretivism and critical theory. *Nurse Researcher*, 25(4), 41–49. <https://doi.org/10.7748/nr.2018.e1466>
- Senol, H. (2020). Professional development of educational leaders. *IntechOpen*. <https://doi.org/10.5772/intechopen.89260>
- Shabbir, M., Wei, S., Fu, Y. G., Chong, R., Marwat, M. A., Nabi, G., & Ahmed, B. (2014). A comparative study of public versus private primary schools: Evidence from Azad Kashmir (Pakistan-administered Kashmir). *Journal of Education and Practice*, 5(9), 154–161.
- Smith, J., & Smith, L. (2020). Gender differences in professional development engagement and satisfaction. *Journal of Educational Leadership*, 15(2), 123–145.
- Taherdoost, H. (2022). What are different research approaches? Comprehensive review of qualitative, quantitative, and mixed method research, their applications, types, and limitations. *Journal of Management Science & Engineering Research*, 5(1), 53–63. <https://doi.org/10.30564/jmser.v5i1.4538>
- Tingle, E., Corrales, A., & Peters, M. L. (2017). Leadership development programs: Investing in school principals. *Educational Studies*, 53(2), 1–21. <https://doi.org/10.1080/03055698.2017.1382332>