

Training need assessment of Upcoming Promotion Link Training of Educational Leaders/Mangers (BS-18 to BS- 19) working in School Education Department (SED), Punjab

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Abstract

This Training Needs Assessment (TNA) aims to evaluate the promotion-linked training program for educational leaders/managers (BS-18 to BS-19) in the School Education Department (SED) Punjab. The study seeks to identify critical areas where leadership and management training needs improvement, aligning with the growing complexities of educational administration in Punjab. Using a mixed-methods approach, the research gathers both quantitative and qualitative data through google form surveys with comment box from 37 respondents. The findings reveal significant trends based on participants' educational qualifications, gender, and perceived relevance of specific training topics. PhD holders rated the training more favorably, while gender-based differences were observed, with female participants reporting higher satisfaction. Topics such as leadership, digital skills, and regulatory frameworks (e.g., the Civil Servant Act 1974) were ranked highly, whereas topics like School Improvement Plans and Micro Teaching were rated lower, indicating gaps in engagement or relevance. The analysis suggests that future training programs should focus on customizing content based on educational background, improving the delivery of lower-rated topics, and enhancing male participant engagement. The study concludes with actionable recommendations for refining the training content and delivery to better address the diverse needs of educational leaders/managers in SED Punjab. This TNA provides valuable insights for improving leadership training, ensuring its effectiveness in preparing school leaders for higher-level roles.

Keywords: Training Needs Assessment (TNA), Educational leadership, School Education Department (SED) Punjab, Promotion-linked training, Leadership skills, Management training, educational administration, Civil Servant Act 1974, Digital skills, School Improvement Plans, Micro Teaching, Gender differences, Customized training, Leadership development.

Introduction

According to Bush and Glover (2003), effective leadership is key to addressing these challenges, as leaders are responsible for creating the conditions necessary for teaching and learning to thrive. Educational leadership and management plays an essential role in the administration and success of school systems, especially in rapidly developing regions such as Punjab, Pakistan. The School Education Department (SED) in Lahore is at the heart of the provincial educational framework, tasked with ensuring that schools operate efficiently and that educational policies are effectively implemented at all levels. With the growing complexity of education administration and the increasing demands on school leaders, it is crucial that those in leadership positions possess the skills, knowledge, and expertise required to navigate the challenges they face. SED has established an academy named Quaid-e-Azam Academy for Educational development (QAED) to fulfill professional needs and to provide professional continuous development of educational leaders and managers.

Promotions within the public sector of Pakistan, particularly for educational leaders and managers, are not merely a matter of seniority but are contingent on continuous professional development. In this regard, the Promotion Link Training (PLT) has been established to equip educational leaders in BS-18 and BS-19 positions with the competencies they need to advance their careers and improve their leadership effectiveness. As noted by Fullan (2007), leadership in education directly influences student outcomes and institutional success, and thus the training of educational leaders is paramount in ensuring the overall development of the education sector.

Training Needs Assessment (TNA) is a systematic process used to determine the specific training requirements of individuals or organizations (Boydell & Leary, 1996). In the context of the Promotion Link Trainings for educational leaders in SED Lahore, a comprehensive TNA is necessary to identify the areas where educational leaders require development. By understanding the current competencies and the gaps in knowledge and skills, the SED can ensure that the training is relevant, effective, and tailored to meet the specific needs of the participants.

The primary objective of the Promotion Link Training is to prepare educational leaders in BS-18 and BS-19 positions for the next stage of their careers. This training is designed to enhance their leadership capacity, ensuring that they are equipped to meet the challenges of their roles and to effectively manage schools and educational programs across the province. As noted by Leithwood et al. (2004), leadership development programs are most effective when they are tailored to the specific needs of the participants and aligned with the goals of the educational system.

For the SED, the Promotion Link Training is a critical component of its broader strategy to improve the quality of education in Punjab. By investing in the professional development of its leaders, the department aims to create a cadre of skilled and knowledgeable professionals who can lead schools and educational institutions effectively. This, in turn, is expected to have a positive impact on student outcomes, teacher performance, and overall school effectiveness.

Significance of the study

The significance of this research lies in its potential to contribute to the following areas:

- **Improved Leadership and Management Effectiveness:** By identifying the specific training needs of educational leaders/managers in SED Punjab, this research can inform the development of targeted training programs that enhance their skills and competencies, leading to more effective leadership and management practices.
- **Enhanced Organizational Performance:** Effective leadership and management are crucial for the success of any organization. By equipping educational leaders/managers with the necessary skills, this research can contribute to improved performance and outcomes within SED Punjab.
- **Enhanced Employee Development:** Targeted training programs can support the professional development of educational leaders/managers, providing them with opportunities to advance their careers and contribute more effectively to the organization.
- **Improved Educational Outcomes:** Effective leadership and management can have a positive impact on the quality of education provided by SED Punjab. By ensuring that educational leaders/managers have the necessary skills, this research can contribute to improved student outcomes.
- **Evidence-Based Decision Making:** The findings of this research can provide evidence-based insights into the training needs of educational leaders/managers in SED Punjab, informing decision-making regarding the allocation of resources and the design of training programs

By conducting a Training Needs Assessment, the study aims to: Identify skill gaps among upcoming leaders, Determine training priorities, Inform curriculum development, Enhance leadership capacity, Support institutional growth, The study's findings will provide valuable insights for, Educational administrators, Policy makers, Training providers, Educational leaders and Researchers. This research will contribute to the development of effective training programs, ultimately benefiting educational institutions, leaders, and the broader educational community.

Problem Statement

The primary objective of this research was to conduct a comprehensive training needs assessment for educational leaders/managers (BS-18 to BS-19) working in SED Punjab. By identifying the specific knowledge, skills, and competencies required for successful leadership and management in this context, this research aimed to inform the design and delivery of targeted training programs.

Objectives of the Study

1. To measure how training participants rank the existing outline (topics) of training.
2. To identify the high ranking areas of promotion link training of educational leaders/managers of (BS-18 to BS-19) in SED Punjab.
3. To explore the training gaps identified by the participants of promotion link trainings for educational leaders/managers of (BS-18 to BS-19) in SED Punjab.

Research Questions

1. How do training participants rank the existing outline (topics) of the training program?
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2. What are the high-ranking areas in promotion-linked training for educational leaders/managers (BS-18 to BS-19) in SED Punjab?

3. What training gaps are identified by participants in promotion-linked training for educational leaders/managers (BS-18 to BS-19) in SED Punjab?

Review of related Literature

In the literature review, education leadership, promotions, professional development, trainings and training needs assessments were elaborated with different aspects to clarify the clear picture and to find out the research gap for the study. The demand for competent educational leader's increases, the significance of professional development, specifically through structured training programs, becomes paramount.

2.1 Educational Leadership/Management

In the context of Pakistan, particularly in Punjab, the educational landscape is complex, characterized by diverse socio-economic factors, a variety of stakeholder expectations, and evolving educational policies. As a result, educational leaders must navigate these challenges while promoting high standards of teaching and learning. Effective leadership is crucial in this environment, as it directly impacts school culture, teacher effectiveness, and student achievement (Day et al., 2016).

Research indicates that educational leaders who engage in continuous professional development demonstrate improved leadership practices and contribute positively to the school environment. For instance, effective training can enhance leaders' skills in instructional leadership, strategic planning, and human resource management (Leithwood & Jantzi, 2000). Therefore, establishing a strong foundation of knowledge and skills through training is vital for leaders seeking to improve their practice and the overall effectiveness of their schools.

2.2 Challenges Faced by Educational Leaders in Pakistan

The educational landscape in Pakistan, particularly in Punjab, is fraught with challenges that directly impact the effectiveness of educational leaders. These challenges include a lack of resources, inadequate infrastructure, limited access to professional development opportunities, and socio-economic disparities among students. The rapid pace of educational reforms and the need for accountability further complicate the role of school leaders in this context.

Research has shown that educational leaders in Pakistan often struggle with managing the expectations of various stakeholders, including government officials, parents, and the community at large (Hussain, 2019). These expectations can create immense pressure on leaders to deliver results while simultaneously navigating the complexities of the education system. As a result, many leaders may feel overwhelmed and ill-equipped to meet the demands of their roles.

Moreover, the gap between policy and practice is a significant challenge for educational leaders in Pakistan. While there are numerous policies aimed at improving educational quality, the implementation of these policies often falls short due to a lack of support, resources, and training for school leaders (Bashir et al., 2018). This disconnect between policy and practice can lead to frustration among leaders and hinder their ability to effect meaningful change within their schools.

The socio-cultural context of Pakistan plays a crucial role in shaping the experiences of

educational leaders. Gender disparities, cultural norms, and societal expectations can limit opportunities for women in leadership positions and may hinder the professional development of all leaders (Mahmood, 2020). Addressing these challenges requires a comprehensive approach that not only focuses on training but also fosters an inclusive and supportive environment for educational leaders.

Importance of Professional Development for Educational Leaders

The professional development of educational leaders has gained recognition as a critical component of successful educational reform initiatives. Numerous studies have demonstrated a positive correlation between effective leadership training and improved educational outcomes. For example, the Wallace Foundation (2013) highlights that high-quality professional development for school leaders leads to increased student achievement, particularly in underperforming schools. This underscores the importance of targeted leadership training that addresses the specific needs and contexts of educational leaders.

Professional development serves multiple functions in the educational context. It not only enhances the knowledge and skills of leaders but also fosters a culture of collaboration and continuous improvement within schools. As educational leaders engage in professional learning communities and collaborative networks, they are better positioned to share best practices, learn from peers, and implement innovative solutions to common challenges (DuFour, 2004). These collaborative efforts are particularly important in high-stakes environments where educational leaders must be agile and responsive to changing demands. Furthermore, research shows that professional development programs focusing on building leadership capacity can significantly impact teachers' motivation and performance (Gordon, 2013). When educational leaders are equipped with the necessary skills and knowledge, they are better positioned to support their teachers and foster a positive learning environment. This relationship between leadership training and teacher efficacy is vital, as it ultimately translates into improved student performance.

As educational leaders in Punjab face unique challenges, such as managing large classrooms and addressing diverse student needs, tailored professional development opportunities become essential for their success. The challenges of implementing reforms, engaging stakeholders, and maintaining accountability in the education system further emphasize the necessity for ongoing training and support (Muhammad, 2020). The upcoming Promotion Link Training for educational leaders in SED Lahore represents a crucial opportunity to equip these leaders with the skills required to navigate these complexities effectively.

Training Needs Assessment (TNA)

Training Needs Assessment (TNA) is a critical process that identifies the skills, knowledge, and abilities required by individuals to perform their roles effectively. TNA is essential for aligning training programs with organizational goals and addressing specific gaps in knowledge and skills (Broad & Newstrom, 1992). In educational settings, TNA is particularly important, as it helps to identify the unique needs of educational leaders, ensuring that training initiatives are relevant and impactful.

Several models of TNA exist, including the ADDIE model (Analysis, Design, Development, Implementation, Evaluation), which provides a structured approach to developing training programs (Molenda, 2003). Each phase of the ADDIE model plays a vital role in ensuring that the training is effectively tailored to the participants' needs. For instance, during the analysis

phase, stakeholders can gather data on existing competencies, desired skills, and the current context of educational leadership in Lahore.

Additionally, other TNA frameworks, such as the Four Levels of Training Evaluation (Kirkpatrick, 1994), provide valuable insights into assessing the effectiveness of training programs post-implementation. By evaluating reactions, learning, behavior, and results, educational leaders can gain a comprehensive understanding of the impact of training initiatives on their practice and the overall school environment.

In the context of the upcoming Promotion Link Training for SED Lahore, employing a TNA approach will help identify the specific competencies that need to be developed in BS-18 to BS-19 leaders. A well-conducted TNA can reveal critical insights into areas such as instructional leadership, data-driven decision-making, conflict resolution, and stakeholder engagement. By addressing these needs, training programs can effectively enhance the skills and competencies of educational leaders, ultimately leading to improved school performance. Training Needs Assessment (TNA) is a systematic approach used to identify gaps between current performance and desired performance in educational contexts. TNA provides a roadmap for designing training programs that are relevant and tailored to the specific needs of educational leaders (McGhee & Grant, 2007). The upcoming Promotion Link Training for educational leaders and managers (BS-18 to BS-19) working in the School Education Department (SED) Lahore, Punjab, is an opportunity to enhance the capabilities of these leaders through a well-defined TNA process. This literature review aims to synthesize existing research on educational leadership, professional development, and the implementation of TNA, ultimately providing a framework for understanding how to best support leaders in SED Lahore.

Training Needs Assessment (TNA) – A Critical Step in Leadership Development

Conducting a Training Needs Assessment (TNA) is a critical first step in the design and implementation of any leadership development program. A TNA is a systematic process used to identify the specific training needs of individuals or organizations (Boydell & Leary, 1996). In the context of the Promotion Link Training for educational leaders in BS-18 to BS-19 positions, a TNA is particularly important because it provides valuable insights into the areas where leaders require further development.

The TNA process typically involves several key steps, including identifying the goals of the training program, assessing the current competencies of the participants, and identifying any gaps in knowledge or skills (Boydell & Leary, 1996). By conducting a TNA, the SED can ensure that the training program is relevant and tailored to meet the specific needs of the participants. This helps to avoid the risk of adopting a one-size-fits-all approach, which may not address the unique challenges faced by educational leaders in different contexts (Caffarella & Daffron, 2013).

For educational leaders in BS-18 and BS-19 positions, the demands of their roles can vary significantly depending on the size and type of schools they manage, the resources available to them, and the specific challenges they face. For example, leaders in rural areas may need additional training in resource management and community engagement, while those in urban areas may require more support in dealing with overcrowded classrooms and teacher shortages (Bush & Glover, 2003). A well-conducted TNA ensures that these diverse needs are identified and addressed in the training program.

In addition to identifying individual training needs, a TNA also helps to align the training program with the broader goals of the organization. In the case of the Promotion Link Training, the SED is committed to improving the quality of education in Punjab and ensuring that its leaders are prepared to meet the challenges of their roles (SED Punjab, 2022). By conducting a TNA, the department can ensure that the training program is aligned with these goals and contributes to the overall improvement of the education system.

Key Areas for Development Identified through TNA

The Training Needs Assessment process for the Promotion Link Training of educational leaders in BS-18 and BS-19 positions has identified several key areas where leaders require further development. These areas are essential for ensuring that leaders are equipped to meet the demands of their roles and drive school improvement. Based on the findings of the TNA, the following areas have been highlighted as priorities for development:

- **Instructional Leadership:** Effective instructional leadership is critical for improving teaching and learning outcomes. The TNA has identified that many educational leaders in BS-18 and BS-19 positions require further training in instructional leadership, particularly in areas such as curriculum development, teacher evaluation, and instructional supervision (Robinson et al., 2008).
- **Human Resource Management:** Managing teachers and other school staff is a key responsibility of educational leaders. The TNA has identified that many leaders require additional training in human resource management, particularly in areas such as teacher recruitment, performance management, and staff development (Leithwood et al., 2004).
- **Financial Management:** School leaders are often responsible for managing budgets and ensuring that resources are used effectively. The TNA has highlighted that many leaders in BS-18 and BS-19 positions require further training in financial management, particularly in areas such as budgeting, resource allocation, and financial reporting (Bush, 2008).
- **Community Engagement:** Engaging with parents and the wider community is essential for creating a positive school culture and improving student outcomes. The TNA has identified that many educational leaders require further training in community engagement, particularly in areas such as stakeholder communication, conflict resolution, and building partnerships with local organizations (Naz, 2016).
- **Policy Implementation:** Educational leaders are responsible for implementing national and provincial education policies at the school level. The TNA has identified that many leaders require further training in policy implementation, particularly in areas such as understanding policy frameworks, monitoring compliance, and evaluating the impact of policies on school performance (SED Punjab, 2022).

Variables for Training Needs Assessment

A. Independent Variables:

- a) **Position:** BS-18 or BS-19
 - b) **Years of Experience:** Length of experience as an educational leader/manager
 - c) **Educational Background:** Level of education (e.g., Masters, PhD) and field of study
 - d) **School Type:** Public school
 - e) **Previous Training:** Participation in previous training programs related to leadership or management
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B. Dependent Variables:

- a) **Perceived Relevance of Training:** Respondents' perceptions of the relevance of existing promotion link-based training outlines to their role and responsibilities.
- b) **Training Needs Identification:** The specific competencies and skills identified as areas for improvement.
- c) **Satisfaction with Training:** Respondents' satisfaction with the quality, content, and delivery of existing training programs.

C. Moderating Variables:

- a) **Organizational Culture:** The prevailing culture and values within SED Lahore, which can influence training needs and perceptions.
- b) **Leadership Style:** The leadership style of supervisors and mentors, which can impact the training experiences of educational leaders/managers.

D. External Factors: Changes in education policy, technological advancements, or socio-economic conditions that may influence training needs.

E. Mediating Variables:

- a) **Knowledge and Skills:** The existing knowledge and skills of educational leaders/managers, which can influence their perception of training needs.
- b) **Motivation:** The motivation and willingness of educational leaders/managers to engage in training and development activities.

Research Gap

While existing research has explored various aspects of leadership and management training in educational institutions, there is a need for more focused studies on the specific context of SED Punjab and the relevance of the promotion link-based training programs for educational leaders/managers at the BS-18 to BS-19 level.

Key Research Gaps:

- a) **Contextual Relevance:** There is a lack of research specifically examining whether the existing promotion link-based training outlines in SED Punjab align with the current needs and challenges educational leaders/managers face at this level.
- b) **Trainee Perceptions:** There is limited research exploring the perspectives of trainees regarding the relevance and effectiveness of the promotion link-based training content.
- c) **Competency Identification:** While some studies may have identified general leadership and management competencies, there is a need for more in-depth research to pinpoint the specific competencies required for success at the BS-19 level within SED Punjab.

Current Practices in Leadership Training

One prominent initiative is the Leadership Development Program (LDP) introduced by the Government of Punjab, aimed at building leadership capacity among educational leaders (Government of Punjab, 2020). This program offers training workshops, mentorship opportunities, and networking events to support the professional growth of school leaders. However, the effectiveness of such programs often depends on their alignment with the actual needs of the participants, which can be identified through a thorough TNA.

Many training programs in Pakistan have historically focused on theoretical knowledge rather than practical applications. While understanding educational policies and frameworks is essential, leaders also require hands-on experience and opportunities to apply their learning

in real-world contexts (Gulzar et al., 2021). Training programs that prioritize experiential learning, peer collaboration, and problem-solving approaches tend to yield more significant benefits for educational leaders and their schools.

The integration of technology into leadership training is another emerging trend in Pakistan. As digital tools become increasingly prevalent in education, leaders must be equipped with the skills to leverage technology effectively in their schools. Training programs that incorporate technology-driven learning methods, such as online modules, webinars, and virtual collaboration, can enhance accessibility and support continuous professional development (Zubair, 2022). However, it is crucial that these programs are designed to meet the diverse needs of educational leaders and consider the varying levels of technological proficiency among participants.

Training Needs Assessments (TNA) can be incredibly effective in identifying skill gaps and informing training programs in various sectors, including education. Below are some successful examples of TNA implementations in educational contexts:

TNA for leadership program in America

The Wallace Foundation, a nonprofit organization dedicated to improving education, has implemented comprehensive TNAs to develop effective school leadership programs across the United States. Their initiatives involve:

- **Data Collection:** Conducting surveys, focus groups, and interviews with school leaders, teachers, and community stakeholders to identify specific leadership competencies required for effective school management.
- **Customization of Programs:** Based on the TNA findings, the foundation has tailored its leadership programs to focus on critical areas such as instructional leadership, strategic planning, and stakeholder engagement.
- **Outcome Measurement:** Implementing evaluations post-training to assess the impact on leadership practices and student outcomes, which helps refine future training initiatives.

Schools that participated in these leadership development programs showed significant improvements in student achievement, as well as higher teacher retention rates (The Wallace Foundation, 2013).

TNA for leadership program in UK

In the UK, the NCTL utilized TNA to improve the training of educational leaders and teachers. They focused on:

- **Research-Based Approach:** Conducting extensive research to identify key skills and knowledge that school leaders need to effectively manage their institutions.
- **Structured Frameworks:** Using established frameworks such as the National Professional Standards for Educational Leaders to guide the TNA process.
- **Stakeholder Engagement:** Engaging with various stakeholders, including headteachers and school governors, to gather insights on leadership challenges and training needs.

As a result of the TNA, the NCTL developed a series of targeted professional development programs, which contributed to improved school leadership quality and enhanced student learning experiences across participating schools (NCTL, 2016).

The Learning Forward Professional Development Standards

Learning Forward, an organization dedicated to advancing professional learning for educators, employs TNA to shape its training programs. Their process includes:

- **Needs Assessment Surveys:** Utilizing surveys to gather information from educators regarding their professional learning needs and preferences.
- **Identifying Gaps:** Analyzing survey data to identify specific areas where educators feel unprepared or require additional training.
- **Custom Program Design:** Designing professional learning programs that directly address the identified gaps in knowledge and skills.

Programs developed from these TNAs have led to increased teacher effectiveness and improved student performance, particularly in schools where educators reported a high alignment between their training needs and the provided professional development opportunities (Learning Forward, 2020).

TNA for leadership program in South Africa

In South Africa, the Department of Basic Education (DBE) has conducted TNAs to improve the quality of teacher training programs. The process involved:

- **National Surveys:** Implementing nationwide surveys to assess the qualifications, skills, and training needs of teachers across various subjects.
- **Targeted Interventions:** Based on the survey findings, the DBE launched targeted training initiatives aimed at enhancing subject knowledge, pedagogical skills, and classroom management techniques for teachers in underserved areas.

The TNA process led to the development of more relevant and effective teacher training programs, which resulted in improved classroom practices and higher student engagement in several districts (DBE, 2018).

Education Sector Support Program (ESSP) in Pakistan

In Pakistan, the ESSP has implemented a TNA to enhance the professional development of school leaders and teachers. The approach included:

- **Consultative Workshops:** Organizing workshops with educators, policymakers, and stakeholders to identify critical areas for leadership and teaching improvement.
- **Data-Driven Decisions:** Using collected data to inform the design of training programs, focusing on essential leadership competencies like curriculum management and instructional strategies.

The assessment led to the development of tailored training modules that improved educational leaders' effectiveness, particularly in rural and underserved areas, ultimately contributing to better student outcomes (Government of Pakistan, 2019).

Conclusion

The literature Review revealed that successful TNAs can significantly inform the design and implementation of training programs, leading to enhanced educational leadership and management. Each of these initiatives involved systematic data collection, stakeholder engagement, and a focus on aligning training with the identified needs of leaders and managers. By employing similar strategies in the context of the upcoming Promotion Link Training for educational leaders in SED Lahore, the effectiveness of professional development initiatives can be greatly improved. The study was focused to bridge the gap found through literature review for the upcoming training of educational leaders and managers under the

umbrella of QAED Punjab, Lahore.

Methodology

Research Design

A mixed-methods research design was employed to gather comprehensive data on the training needs of educational leaders/managers (BS-18 to BS-19) in SED Punjab. This approach combined quantitative and qualitative data collection methods to provide a more holistic understanding of the research objectives.

Data Collection Methods

1. **Survey:** A google form (Rating scale) with comments box was sent to educational leaders/managers (BS-18 to BS-19) working in SED Punjab. The survey was comprised of two sections:
 - a) **Demographic Information:** Collected basic information about the respondents, such as their position, experience, and educational background.
 - b) **Training Needs Assessment:** Utilized a Likert scale to assess respondents' perceptions of the relevance of existing promotion link-based training outlines. The scale was with options such as:
 - i. **Not relevant:** The training content is completely irrelevant to my role and responsibilities.
 - ii. **Relevant to some extent:** The training content is partially relevant but does not fully address my needs.
 - iii. **Most relevant:** The training content is highly relevant and addresses my specific needs.

2. **Comments box:** A comments box was provided in google form to gain qualitative data

Data Analysis

A. Quantitative Data: Analyzed, using SPSS V26, the survey data using descriptive statistics to calculate frequencies, percentages, and means for the Likert scale responses.

B. Qualitative Data: Analyzed the comments using thematic analysis to identify key themes and patterns related to the perceived relevance of training outlines and required competencies.

C. Integration of Findings

- a) The quantitative and qualitative data was combined to provide a comprehensive understanding of the training needs of educational leaders/managers in SED Punjab.
- b) The areas where there was a consensus were identified among respondents regarding the relevance of training outlines and the required competencies.
- c) The areas were identified where there discrepancies or conflicting perspectives among respondents.

Population of the Study

Category	Description
Total Population	Approximately 247 educational leaders and managers in BS-18 to BS-19 positions in SED Punjab.
Job Levels	BS-18 to BS-19 (mid to senior management positions within the educational sector).
Purpose of Training	To enhance leadership skills, management strategies, and effective educational practices.
Training Duration	Typically ranges from 4 to 6 weeks, depending on the specific modules and content delivered.

Training Methods	Includes workshops, seminars, group discussions, and practical case studies.
Key Focus Areas	Leadership development, strategic planning, educational management, and performance evaluation.
Expected Outcomes	Improved leadership capabilities, enhanced decision-making skills, and better management practices.
Assessment Methods	Pre- and post-training assessments to evaluate knowledge gains and skill application.
Follow-Up Support	Ongoing mentorship and support post-training to reinforce learning and application of skills.

3.5 Sample of the Study

Google form was sent to all the trainees (247), 37 respondents (more than 10% of the population) recorded their responses that were enough to represent the population as per survey requirements (Wagner et al., 2012). Responsive sampling technique was adopted for the study.

Participant ID	Name	Contact	Position	Tehsil	District	Gender	Qualification	Experience (Teaching / Administrative)
1	Muhammad Aslam Khan Qaisrani	ddo.lodhran@gmail.com	Dy. DEO	Multan city	Multan	Male	MA/M Sc	12
2	Muhammad Jibril Shahab Sahir	jibrielshahab@gmail.com	SSS (Maths)	Bhakkar	Bhakkar	Male	PhD	15 years
3	Munir Hussain	munirh826@gmail.com	DDEO	Noor Pur Thall	Khushab	Male	PhD	35
4	Shahid siddique	shahidssgeo@gmail.com	DDEO SE	Dina	Jhelum	Male	M. Phil	17-Jun
5	Muhammad Farooq ue	farooqch.mcn@gmail.com	Sr. H.M	Mian Channu	Khane wal	Male	M. Phil	16 year
6	Habib ur Rehman	habiburrehmangadi@gmail.com	Sr.HM	Tounsa	Dgk	Male	MA/M Sc	15 years teaching and 3 years

								administ rative
7	Fayyaz Ahmad	faizi999@gmail.com	Dy. DEO	Faisala bad Sadar	Faisala bad	Male	M. Phil	11 years
8	Mahwish Rasheed	chandamahwish522@gmail.com	Sr. H.M	Taunsa sharif	Dgk	Female	M. Phil	9 year
9	Saleem Akhtar	gpsbulanino2@gmail.com	Sr. H.M	Taunsa	DgKhan	Male	M. Phil	7 years
10	Aisha Siddique	aishasidiqua590@gmail.com	Sr. H.M	Taunsa Sharif	DGk	Female	MA/M Sc	9 year
11	Khalid Mahmood Khan	khalidmahmoodkhan70@gmail.com	Senior Headmaster	Multan City	Multan	Male	M. Phil	29 years
12	Abdul Rouf	roufqesrani1@gmail.com	Sr. HM	Multan Sadar	Multan	Male	M. Phil	16
13	Dr. Muhammad Imran	mimranbhatti966@gmail.com	SSS	Multan	Multan	Male	PhD	16
14	Abid Gul	abidgul210@gmail.com	SSS	Mian channu	Khane wal	Male	M. Phil	16 years
15	Rukhsana Naz	rukhsananazkhan@gmail.com	SSS English	Mailsi	Vehari	Female	MA/M Sc	16
16	Shahna z Saleem	wisheerana06@gmail.com	SSS English	Kabirw ala	Khane wal	Female	MA/M Sc	10 years administ ration and 5 years teac
17	Kalsoon Akhter	kalsoom.sajid44@gmail.com	Sr. Headmistress	Mianch annu	Khane wal	Female	MA/M Sc	06 years/ 16 years
18	Humaira	humairasaeed46@gmail.com	SSS	Multan city	Multan	Female	PhD	Teaching 8 years , administ rative 16 years
19	Maqsood Anjam	maqsoodanjam1974@gmail.com	SSS	Burewala	Vehari	Male	MA/M Sc	22 years
20	Muhammad	mzg.ghsbairband@gmail.com	DDEO	Ali pur	Muzaff Garh	Male	MA/M Sc	16 years

	Hashi m								
21	ZULFI QAR ALI	aliurdu@gmail.com	Senior Headma ster	SHUJAB AD	MULTA N	Mal e	PhD	20 Years	
22	Muha mmad Ashraf	mehariqbalumar25@gmail.com	Sr. Headma ster	Multan saddar	Multan	Mal e	PhD	16 years	
23	shahid Iqbal	iqbalshahid221@gmail.com	Sr. Headma ster	multan	multan	Mal e	M. Phil	15 year	
24	Shahid Mehm opod	Mehmoodshahid232@gmail.com	Sr. Headma ster	Shujaba d	multan	Mal e	M. Phil	14 year	
25	Rizwa n Ali	hmrao80@gmail.com	Dy deo	Kahrora pacca	Lodhra n	Mal e	M. Phil	16 year	
26	Muha mmad Naeem akber	naeemakbarlaghari@gmail.com	senior Head Master	muzarff argarh	Muzaff ar Garh	Mal e	M. Phil	16 years administ rative	
27	Muha mmad Mazha r Fareed	mazharfareedwaseer@gmail.com	SR.HM	Liaquat Pur	Rahim Yar Khan	Mal e	M. Phil	15	
28	Muha mmad Mazha r Madni	mazharmadni84@gmail.com	SHM	Kahrora Pacca	Lodhra n	Mal e	M. Phil	16year	
29	Abdul Hamee d Zahid	hameedji123@gmail.com	Sr. Headma ster	Muzaffa rgarh	Muzaff argarh	Mal e	M. Phil	16	
30	Sajida kalsoo m	mhassanali190811@gmail.com	Sr.HM	Attock	Attock	Fe mal e	MA/M Sc	16 years (Adminis tration)	
31	NAEE M RIZWA N	shmghs163eb@gmail.com	Senior Headma ster	ARIFW ALA	PAKPA TTAN	Mal e	MA/M Sc	22	
32	Zia Sajid Khan	ziasajidss17@gmail.com	Dy DEO	Taunsa M-EE	D.G.Kh an	Mal e	MA/M Sc	7 years	
33	Nimra Arshad	nimra1982@gmail.com	Sr.HM	Jand	Attock	Fe mal e	MA/M Sc	16 years(administ ration)	

34	Zafar Iqbal	zafariqbal37201@gmail.com	SSS Physics	Chakwal	Chakwal	Male	MA/MSc	Teaching
35	Kalsoom Akhtar	kalsoomakhter6715@gmail.com	Sr. head	Vehari	Vehari	Female	MA/MSc	16
36	SHABANA KOUSAR	158wb.vehari@gmail.com	SR HEADMASTER	Mailsi	Vehari	Female	MA/MSc	Administrative
37	MUHAMMAD SAJID RAFIQ	sajidhm80@gmail.com	Senior Headmaster High School	Kallurkot	Bhakkar	Male	MA/MSc	16

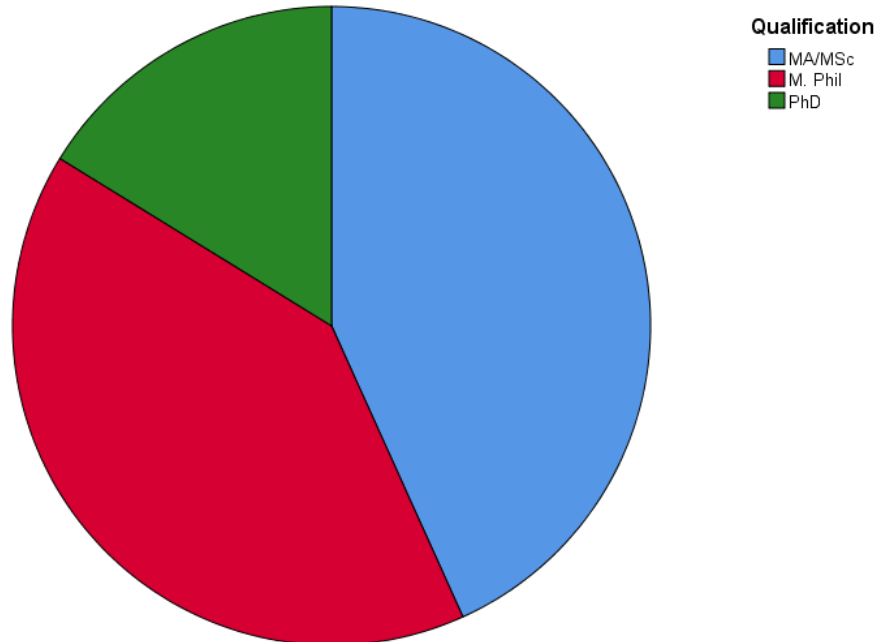
Analysis and Results

Interpretation

Demographic

Qualifications

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	MA/MSc	16	43.2	43.2	43.2
	M. Phil	15	40.5	40.5	83.8
	PhD	6	16.2	16.2	100.0
	Total	37	100.0	100.0	



Interpretation

The largest group of respondents holds an MA/MSc, comprising 43.2% of the total. This indicates a significant representation of individuals with this qualification.

The second largest group consists of those with an M. Phil, accounting for 40.5%. Together, these two categories represent 83.8% of the total qualifications, suggesting a strong focus on master's level education.

The PhD holders make up the smallest segment at 16.2%, indicating fewer individuals with doctoral qualifications in the dataset.

Cumulative Percent

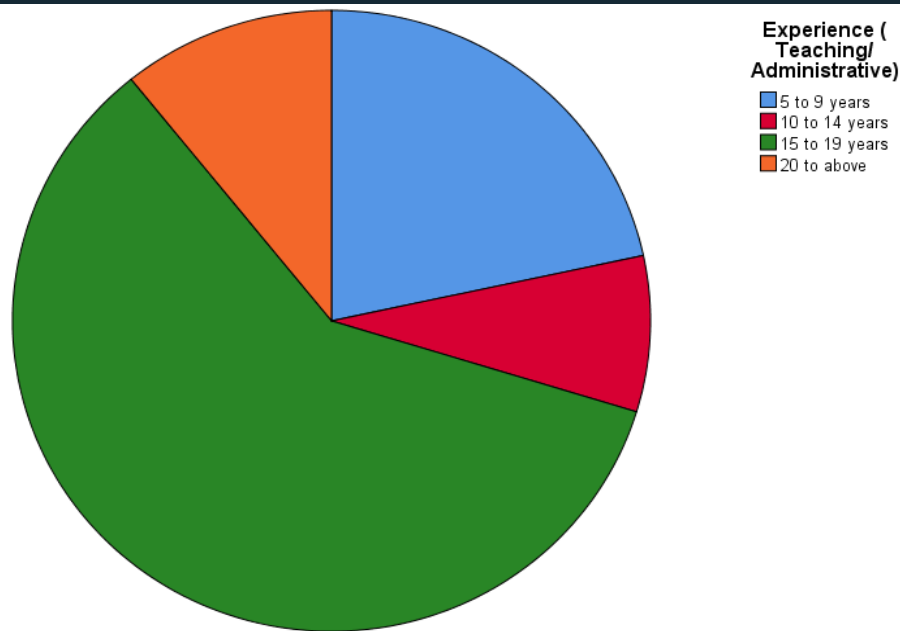
The cumulative percent shows that after combining MA/MSc and M. Phil qualifications, 83.8% of respondents have at least a master's level education, with 100% of respondents accounted for by including PhD holders.

Conclusion

This data reveals that most respondents possess advanced degrees, with a notable concentration in MA/MSc and M. Phil qualifications, reflecting a highly educated sample group.

Experience (Teaching/ Administrative)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 5 to 9 years	8	21.6	21.6	21.6
10 to 14 years	3	8.1	8.1	29.7
15 to 19 years	22	59.5	59.5	89.2
20 to above	4	10.8	10.8	100.0
Total	37	100.0	100.0	



Interpretation

- The **largest group of respondents** has **15 to 19 years of work experience**, comprising **59.5%** of the total. This indicates a significant level of experience within this segment, suggesting that many respondents are likely to be seasoned professionals in their respective fields.

- The **second largest group** is those with **5 to 9 years of experience**, accounting for **21.6%**. This indicates a notable presence of relatively newer professionals who may still be building their careers.

- The **smallest group** is comprised of individuals with **10 to 14 years of experience** at **8.1%**, followed by those with **20 years and above** at **10.8%**. These two categories together represent a minor proportion of the total, reflecting fewer individuals in these specific ranges.

Cumulative Percent

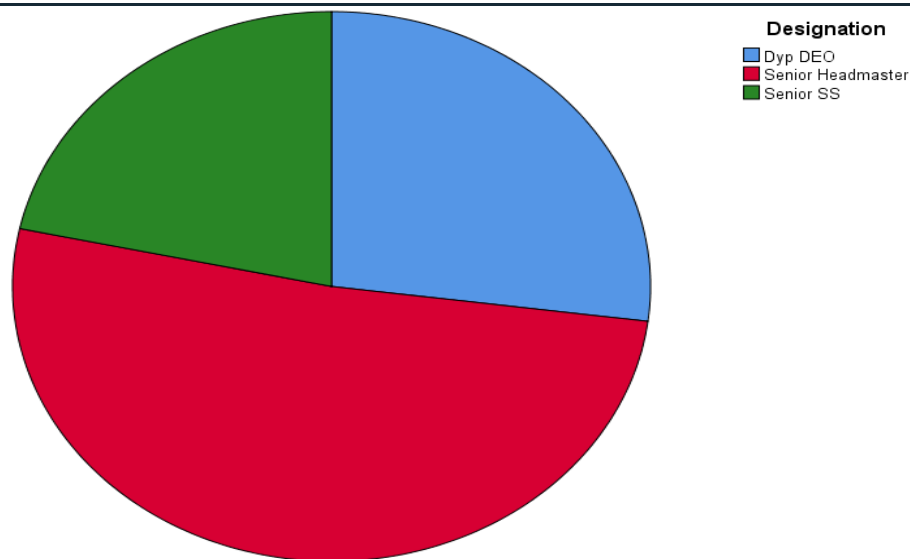
- The **cumulative percent** shows that **89.2%** of respondents have between 5 to 19 years of experience. Only **10.8%** of respondents have 20 years or more, highlighting that while many individuals have substantial experience, there are fewer individuals with very long careers.

Conclusion

This data reveals that the majority of respondents have considerable work experience, particularly in the **15 to 19 years** range. The overall experience distribution suggests a workforce with a strong background in their respective fields, with most individuals likely able to contribute valuable insights and expertise.

Designations

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Dyp DEO	10	27.0	27.0	27.0
	Senior Headmaster	19	51.4	51.4	78.4
	Senior SS	8	21.6	21.6	100.0
	Total	37	100.0	100.0	



Interpretation

- The **largest group of respondents** holds the position of **Senior Headmaster**, making up **51.4%** of the total. This indicates that a significant proportion of the respondents are likely to be in leadership roles within educational institutions, suggesting a strong

presence of experienced individuals in positions of authority.

- The **second largest group** is the **Dyp DEO**, accounting for **27.0%**. This role represents a substantial administrative function, reflecting a notable presence of professionals involved in district-level educational oversight.
- The **smallest group** comprises **Senior SS** at **21.6%**, indicating fewer respondents hold this position. This role typically involves senior teaching responsibilities, contributing to the educational framework but in a lesser proportion compared to the other two categories.

Cumulative Percent

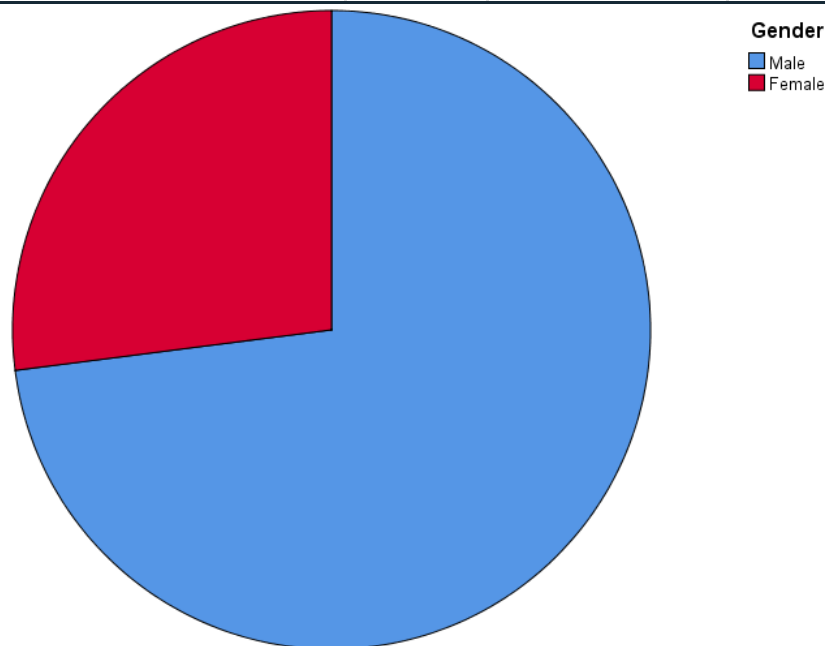
- The **cumulative percent** shows that **78.4%** of respondents hold either the positions of **Senior Headmaster** or **Dyp DEO**, indicating that the majority of the respondents have significant roles that likely influence educational policy and practice within their institutions.

Conclusion

This data reveals that the majority of respondents hold leadership or significant administrative positions within the educational sector, particularly as **Senior Headmasters**. The distribution indicates a strong representation of experienced professionals in these critical roles, which can enhance the effectiveness and direction of educational initiatives.

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	27	73.0	73.0	73.0
	Female	10	27.0	27.0	100.0
	Total	37	100.0	100.0	



Interpretation

- The data indicates a **significant gender imbalance**, with **73.0%** of respondents identifying as **male** and only **27.0%** identifying as **female**. This suggests a predominance of

male participants in the surveyed group.

- The **majority of the respondents** (27 males) reflects a potential trend in the field being surveyed, indicating either a lack of female representation or a systemic issue influencing the gender dynamics within the respondent population.

Cumulative Percent

- The **cumulative percent of 100.0%** confirms that all respondents are accounted for, with the male respondents forming a clear majority.

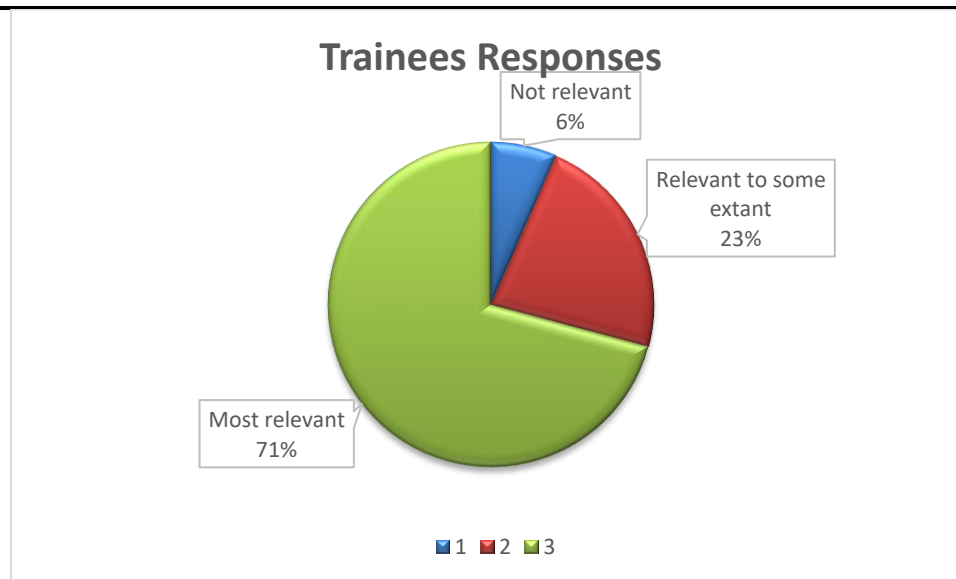
Conclusion

The gender distribution highlights a **dominance of male respondents** in this survey, with females constituting only a fraction of the total. This disparity may warrant further investigation into the factors contributing to the underrepresentation of women in the field or context being studied.

Responses (Not relevant 1) (Relevant to some extant 2) (Most relevant 3)

Questions	Not relevant	Relevant to some extant	Most relevant	M	SD
Holy Prophet (SAW) as Role Model.		1	36	2.97	0.164
Creating & Communicating a Vision		5	32	2.86	0.347
Leading & Managing and Leadership Styles	1	4	32	2.84	0.442
Staff Motivation		6	31	2.84	0.374
Team Building	1	8	28	2.73	0.508
Single National Curriculum		10	27	2.73	0.45
Standards for Teachers and its Implementation	2	10	25	2.62	0.594
Educational Calendar		15	35	2.59	0.498
Sustainable Development Goals (SDGs)		8	29	2.78	0.417
Assessment Techniques	2	10	25	2.62	0.594
Blooms Taxonomy		4	33	2.97	0.164
School Improvement Plan	4	20	13	2.24	0.641
Micro Teaching	4	20	13	2.24	0.641
Inclusive Education	2	13	22	2.54	0.605
E-Learn Punjab/Online Learning	3	14	20	2.46	0.65
Women & Harassment Act 2010	4	11	22	2.49	0.692
Tolerance and Peaceful Co-Existence	1	9	27	2.7	0.52
Early Childhood Care Education	3	11	23	2.54	0.65
SIS/E-Transfer/HRMS		11	26	2.7	0.463
Civil Servant Act 1974		4	33	2.89	0.315
Pension Rules		4	33	2.89	0.315
Disciplinary Proceedings PEEDA Act 2006		4	33	2.89	0.315
Probe & Inquiry + Practical Session		1	36	2.97	0.164
Maintenance of School Record		5	32	2.86	0.347
Leave Rules	2	2	33	2.84	0.501

PER Writing		5	32	2.86	0.347
Public Financial Management	2	5	30	2.76	0.548
Purchase & Procurement Procedures (PPRA Rules)	1	3	33	2.86	0.419
Cash Handling & DDO powers	1	4	32	2.84	0.442
Annual Budget + Practical Session	1	3	33	2.86	0.419
TA/DA Rules	1	14	22	2.57	0.555
Public Health & Hygiene	5	15	17	2.32	0.709
Stress & Conflict Management		14	23	2.62	0.492
21st Century Skills in Classroom		11	26	2.7	0.463
Professional Behavior & Etiquette	2	4	31	2.78	0.534
Communication & Presentation Skills		5	32	2.86	0.347
Office Correspondence & Office Management		2	35	2.95	0.229
Introduction to Computer / Internet Surfing / Artificial Intelligence / Cyber Security		7	30	2.81	0.397
Power Point / ICT Practical Sessions		8	29	2.78	0.417
Excel ICT Practical Session		8	29	2.78	0.417
MS Word / ICT Practical Sessions		7	30	2.81	0.397
Report Writing / Syndicate Work	3	18	16	2.35	0.633
Book Review	4	14	19	2.62	0.492
Simulation	3	19	15	2.32	0.626
Project work	6	16	15	2.24	0.723



This table presents the mean scores and standard deviations for various training modules or topics, likely in the context of a leadership or educational training program. The topics covered range from leadership, education, and management techniques to specific laws,

digital literacy, and workplace skills. The analysis is based on participant responses, possibly evaluating their level of understanding, perceived importance, or satisfaction with each topic.

Summary of Key Elements

1. Mean Scores:

- The mean score represents the average rating given by participants for each training topic, measured on a likely scale (e.g., 1-3 or 1-5).
- The scores range from **2.24** to **2.97**, indicating relatively high average ratings across most topics, suggesting participants viewed these topics favorably or as effective.

2. Standard Deviation:

- The standard deviation reflects how spread out the ratings are from the mean.
- A low standard deviation indicates that most participants rated the topic similarly, while a higher standard deviation suggests greater variability in opinions.

Key Observations:

• Highest Mean Scores (2.97):

- The topics of *Holy Prophet (SAW) as Role Model*, *Blooms Taxonomy*, and *Probe & Inquiry + Practical Session* received the highest average ratings (2.97).
- These topics were perceived as highly important or effective by the participants, with relatively low variability in responses (SD = 0.164), indicating a strong consensus.

• Lowest Mean Scores (2.24):

- Topics like *School Improvement Plan*, *Micro Teaching*, and *Project Work* had the lowest mean scores (2.24).
- These scores suggest that participants found these topics less effective or less relevant compared to others. The standard deviation (0.641 to 0.723) also indicates considerable variability in opinions, with participants possibly having mixed views.

• Topics with Moderate Scores (2.5 - 2.8):

- Several topics, including *Sustainable Development Goals (SDGs)*, *Inclusive Education*, *21st Century Skills in Classroom*, and *Communication & Presentation Skills*, had average ratings in the range of 2.5 to 2.8.
- These topics had moderate standard deviations (ranging from 0.397 to 0.605), indicating that while most participants rated these topics favorably, there was some variation in how they were perceived.

• Legislative and Procedural Topics:

- Topics like *Civil Servant Act 1974*, *Pension Rules*, *Disciplinary Proceedings PEEDA Act 2006*, *Public Financial Management*, *Cash Handling & DDO Powers*, and *Purchase & Procurement Procedures (PPRA Rules)* received relatively high mean scores (2.84 to 2.89).
- These scores suggest that participants found these legislative and procedural topics relevant and useful in their roles. The standard deviations for these topics are moderate, indicating some variability but generally consistent ratings.

• Digital Literacy and ICT Practical Sessions:

- *Introduction to Computer / Internet Surfing / Artificial Intelligence / Cyber Security* and *PowerPoint / Excel / MS Word ICT Practical Sessions* had mean scores ranging from **2.78** to **2.81**, indicating favorable perceptions.
 - These digital literacy and practical training topics had relatively low standard deviations (0.397 to 0.417), meaning most participants rated them similarly, reflecting a
-

consistent appreciation of these sessions.

- **Professional and Behavioral Skills:**

- Topics related to workplace behavior, such as *Professional Behavior & Etiquette* and *Communication & Presentation Skills*, also received high ratings (around **2.86**).
- These topics were viewed as essential components of the training, with moderate variability in ratings, showing general agreement among participants.

- **Lower Ratings for Topics Related to Health and Stress Management:**

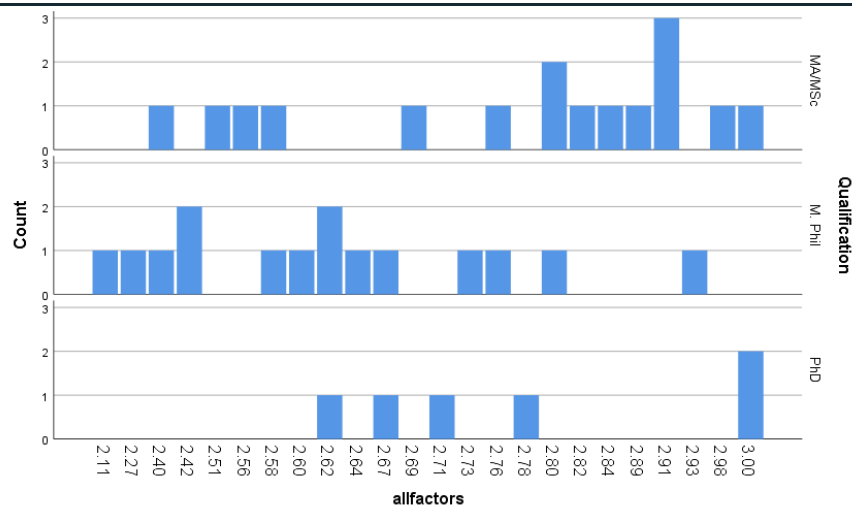
- *Public Health & Hygiene* (2.32) and *Stress & Conflict Management* (2.62) received relatively lower mean scores. This suggests that participants might not have found these topics as impactful as others.
- The standard deviations (0.492 to 0.709) indicate moderate to high variability, suggesting mixed opinions on the usefulness of these topics.

Conclusion:

The table highlights the effectiveness of various training modules/topics based on participant feedback. Topics related to leadership, management, legal frameworks, and digital literacy generally received high ratings, indicating their perceived importance and effectiveness. Conversely, topics related to health, school improvement, and micro-teaching received lower scores, with some participants showing mixed views about their relevance or effectiveness. Overall, the training program seems well-received, with a broad consensus on the value of most topics covered.

Participants qualification wise perception

Qualification	N	Mean	Std. Deviation	F	Sig.
MA/MSc	16	2.7722	.17769	5.213	.011
M. Phil	15	2.5719	.21422		
PhD	6	2.7963	.16595		
Total	37	2.6949	.21332		



The table summarizes the statistical analysis results for participants categorized by their

educational qualifications (MA/MSc, M. Phil, and PhD) concerning a specific measure, which may relate to training effectiveness, competency levels, or another relevant variable.

ANOVA Results (F and Sig.):

The F-value of 5.213 and the significance value (Sig.) of 0.011 suggest that there is a statistically significant difference in the mean scores among the different educational qualification groups. The p-value (Sig.) being less than 0.05 indicates that at least one group differs significantly from the others in terms of the measured variable.

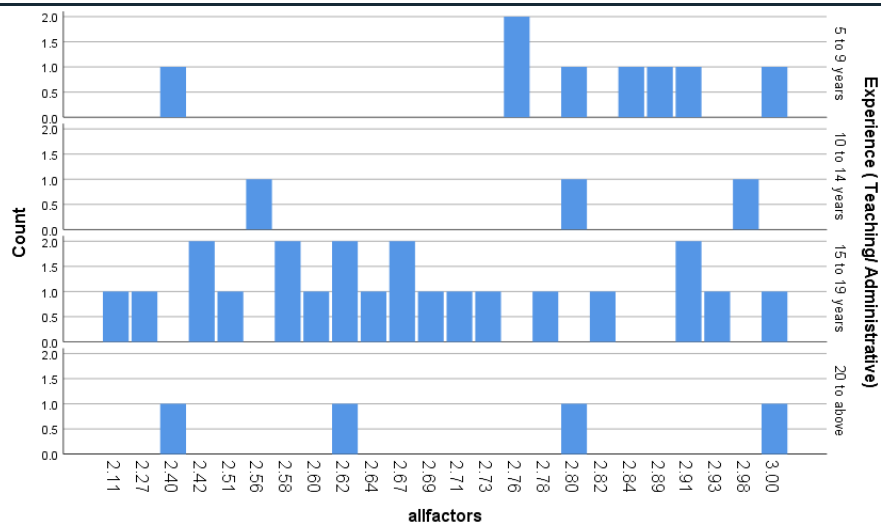
Interpretation

The findings indicate that educational qualification has an impact on the scores related to the variable being measured. Specifically, participants with PhDs have the highest mean score, followed closely by those with MA/MSc qualifications, while M. Phil participants have the lowest mean score among the three groups. This suggests that the level of education may correlate with the effectiveness or competency levels related to the training program, with higher educational attainment potentially linked to better performance or understanding of the material.

In summary, this analysis provides insight into the relationship between educational qualifications and the corresponding scores of participants in the training program, emphasizing the importance of educational background in shaping participant outcomes.

Participants experience wise perception

Experience	N	Mean	Std. Deviation	F	Sig.
5 to 9 years	8	2.7944	.17965	1.142	.346
10 to 14 years	3	2.7778	.21199		
15 to 19 years	22	2.6455	.21518		
20 to above	4	2.7056	.25556		
Total	37	2.6949	.21332		



The table presents statistical analysis results for participants categorized by years of

experience related to a specific measure, likely assessing the effectiveness of training, competencies, or another pertinent variable.

ANOVA Results (F and Sig.):

The F-value of 1.142 and the significance value (Sig.) of 0.346 indicate that there are no statistically significant differences in the mean scores across the different experience categories. The p-value (Sig.) being greater than 0.05 suggests that the variations in scores among the experience levels are not statistically significant.

Interpretation

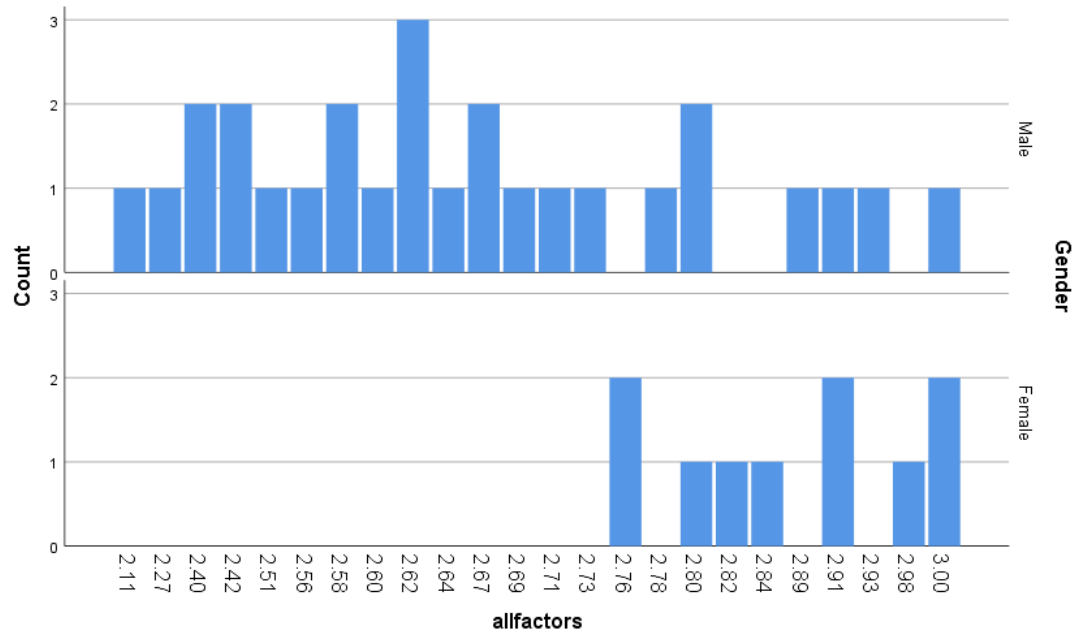
The findings indicate that years of experience do not have a significant impact on the scores related to the variable being measured. The participants with **5 to 9 years** of experience have the highest mean score, followed closely by those with **10 to 14 years**. In contrast, participants with **15 to 19 years** of experience show the lowest mean score among the groups, while those with **20 years and above** score slightly higher than the 15 to 19 years group.

The lack of statistically significant differences implies that the level of experience may not substantially influence the outcomes related to the training or competency being assessed. Consequently, participants with varying experience levels may possess similar competencies or perspectives regarding the training program, indicating that factors other than experience, such as educational background or specific training received, may play a more critical role in shaping participant outcomes.

In summary, this analysis provides insight into the relationship between years of experience and the corresponding scores of participants, underscoring the need for additional factors to be considered when evaluating training effectiveness.

Participants gender wise perception

Gender	N	Mean	Std. Deviation	F	Sig.
Male	27	2.6272	.20547	13.597	.001
Female	10	2.8778	.09558		
Total	37	2.6949	.21332		



The table presents a statistical comparison between male and female participants concerning a specific measure, likely evaluating training effectiveness, performance, or other relevant criteria.

ANOVA Results (F and Sig.):

The F-value of 13.597 and the significance value (Sig.) of 0.001 indicate that there is a statistically significant difference between male and female participants' mean scores. A significance (Sig.) value of 0.001 means the difference between genders is highly significant ($p < 0.05$), suggesting that gender plays a crucial role in determining the variable being measured.

Interpretation

The results show a notable difference between male and female participants' scores. Female participants have a significantly higher mean score (**2.8778**) compared to male participants (**2.6272**), with the difference being statistically significant at the 0.001 level. This suggests that female participants outperform male participants concerning the measured criterion. The lower standard deviation for female participants (**0.09558**) suggests that their scores are more consistent, whereas the higher standard deviation for males (**0.20547**) implies more variability in the male participants' scores.

The significant F-value (**13.597**) supports the conclusion that gender is a significant factor influencing the outcome, meaning male and female participants differ meaningfully in their performance or assessment in the measured area. This could point to potential gender-based differences in perspectives, experiences, or competencies within the context of the training or performance measure.

In summary, this table highlights a statistically significant gender difference in the measured variable, with female participants scoring higher and showing less variability in their scores than male participants. This finding suggests that gender may influence performance,

training outcomes, or perception of effectiveness, and it might warrant further investigation to understand the underlying causes of this difference.

Conclusions

Findings of the Study

1. Educational Qualification Table:

- The participants were categorized based on their educational qualifications (MA/MSc, M. Phil, PhD).
- PhD holders had the highest mean score (2.80), followed by MA/MSc participants (2.77). M. Phil holders had the lowest mean score (2.57).
- The analysis shows a significant difference between groups, with an **F value of 5.213** and **Sig. value of 0.011**, indicating that educational qualifications significantly impact the evaluation scores.

2. Experience in Service Table:

- Participants were grouped based on their years of experience (5-9 years, 10-14 years, 15-19 years, and 20+ years).
- Participants with 5-9 years of experience had the highest mean score (2.79), while those with 15-19 years of experience had the lowest (2.64).
- Despite the variation in mean scores, the **F value of 1.142** and **Sig. value of 0.346** indicate no significant difference between the groups based on years of experience.

3. Gender Table:

- Male participants (27) had a mean score of **2.63**, while females (10) had a higher mean score of **2.88**.
- The analysis indicates a significant difference between the genders, with an **F value of 13.597** and **Sig. value of 0.001**, showing that gender plays a significant role in the evaluation scores, with females giving higher scores on average.

4. Topic Ratings Table:

- This table presents the mean scores and standard deviations for a wide range of topics covered in the training program.
 - The highest-rated topics, such as *Holy Prophet (SAW) as Role Model*, *Blooms Taxonomy*, and *Probe & Inquiry + Practical Session*, received a mean score of **2.97** with low standard deviations (0.164), indicating high participant agreement.
 - The lowest-rated topics, including *School Improvement Plan*, *Micro Teaching*, and *Project Work*, received a mean score of **2.24** with standard deviations as high as 0.723, indicating lower participant satisfaction and more variability in responses.
 - Legal and procedural topics, such as *Civil Servant Act 1974* and *Disciplinary Proceedings PEEDA Act 2006*, received relatively high mean scores (2.89), suggesting these were perceived as highly relevant.
 - Digital literacy and ICT practical sessions, such as *PowerPoint*, *Excel*, and *MS Word ICT Practical Sessions*, were also rated favorably with mean scores around **2.78-2.81**.
 - Topics related to professional behavior and communication, like *Professional Behavior & Etiquette* and *Communication & Presentation Skills*, had high mean scores (around **2.86**), showing that these skills were valued by participants.
 - Health and stress-related topics, such as *Public Health & Hygiene* and *Stress & Conflict Management*, received lower mean scores (2.32 to 2.62), indicating that participants found
-

these areas less impactful.

Overall Findings:

1. **Educational Qualification Impact:** Higher educational qualifications, particularly PhDs, seem to be associated with higher ratings, reflecting that more educated participants may have a more favorable view of the training content.
2. **Years of Experience:** Experience does not significantly affect the ratings, although participants with less experience (5-9 years) rated the training slightly higher than more experienced participants.
3. **Gender Differences:** Female participants consistently gave higher ratings compared to their male counterparts, showing a gender-based difference in the perception of the training content.
4. **Training Topics:**
 - Topics related to leadership, laws, and practical ICT sessions were rated highly, suggesting that participants found these most relevant to their professional needs.
 - Conversely, topics related to school improvement, micro-teaching, and health/stress management were rated lower, indicating that participants may have found these areas less applicable or less effectively covered in the training program.
5. **Variation in Topic Relevance:** The wide range of standard deviations across topics indicates variability in how different participants perceived the usefulness of the content, with certain topics resonating more consistently across the board while others showed a divergence of opinions.

Conclusions

1. **Impact of Educational Qualifications:**
 - The data shows that participants with higher academic qualifications, particularly PhDs, rated the training program more favorably. This suggests that individuals with advanced degrees may perceive the content as more aligned with their knowledge and professional development needs.
 - The significant difference observed between qualification groups (with a Sig. value of 0.011) emphasizes that tailoring content to different educational backgrounds might enhance overall participant satisfaction.
 2. **Experience Does Not Significantly Affect Ratings:**
 - Despite some variation in the mean scores, particularly with participants having 5 to 9 years of experience rating the program higher, the lack of statistical significance (Sig. value of 0.346) implies that participants' years of experience did not substantially influence their perception of the training.
 - This suggests that the training content was relevant across varying levels of experience, indicating a well-balanced program that catered to both newer and more seasoned professionals.
 3. **Gender-Based Perception Differences:**
 - Female participants gave consistently higher ratings compared to their male counterparts, with a statistically significant difference (Sig. value of 0.001). This indicates that the program resonated more with female participants, or that their engagement level with the material was higher.
 - The training designers might consider further examining why females rated the
-

content higher and explore ways to enhance male participant engagement in future sessions.

4. **Relevance of Training Topics:**

○ Topics related to leadership (e.g., *Holy Prophet (SAW) as Role Model, Leading & Managing, Civil Servant Act 1974*), digital skills (*PowerPoint/Excel/MS Word sessions*), and regulatory frameworks (e.g., *Disciplinary Proceedings PEEDA Act 2006*) were rated highly. This indicates that participants found these topics to be the most practical and relevant for their roles.

○ Conversely, topics like *School Improvement Plan, Micro Teaching, and Project Work* received lower ratings, suggesting that participants either found these less applicable to their current work context or that they were not effectively addressed during the training.

○ The variation in standard deviations across topics highlights that while some areas were consistently valued by most participants, others may require refinement or alternative approaches to engage a wider audience.

5. **Variability in Topic Engagement:**

○ The training program demonstrated a wide range of participant engagement across different topics, suggesting that future sessions could benefit from a more focused approach on key areas that resonate strongly with participants, such as leadership, digital literacy, and legal procedures.

○ Areas that received lower ratings, such as health-related topics and micro-teaching, might be revisited to ensure their relevance and delivery methods align more closely with participant expectations.

Overall Conclusion:

The training program for promotion link from BS-18 to BS-19 in the SED Punjab was generally well-received, particularly by participants with higher educational qualifications and female participants. While the program successfully covered important topics like leadership, regulatory frameworks, and digital literacy, certain areas, including micro-teaching and school improvement, may require enhanced focus or improved delivery strategies. Future training initiatives could benefit from tailoring content more closely to participant backgrounds, providing a more engaging and relevant learning experience.

Proving the Objectives from the Data:

Objective 1: Measure How Training Participants Rank the Existing Outline (Topics) of Training

The data in the table outlines how the participants rated various training topics on a scale, with mean scores and standard deviations reflecting their satisfaction with each topic. The topics with higher means reflect a more favorable ranking by the participants, while lower means indicate less satisfaction.

For example:

• **Highest-ranked topics:** *Holy Prophet (SAW) as Role Model* (Mean = 2.97, SD = 0.164), *Blooms Taxonomy* (Mean = 2.97, SD = 0.164), and *Probe & Inquiry + Practical Session* (Mean = 2.97, SD = 0.164).

• **Lowest-ranked topics:** *School Improvement Plan* (Mean = 2.24, SD = 0.641), *Micro Teaching* (Mean = 2.24, SD = 0.641), and *Project Work* (Mean = 2.24, SD = 0.723).

This demonstrates that participants rank the existing training topics with varying degrees of favorability, with the topics related to religious values and inquiry receiving high rankings,

and topics involving practical application, such as micro-teaching, receiving lower rankings.

Objective 2: Identify the High-Ranking Areas of Promotion Link Training of Educational Leaders/Managers (BS-18 to BS-19) in SED Punjab

From the data, the high-ranking areas of the training are those that participants scored the highest in terms of mean scores. These topics are considered the most relevant or impactful for the participants.

- **Holy Prophet (SAW) as Role Model** and **Blooms Taxonomy** (Mean = 2.97) are two areas that received the highest rankings from participants.

- Other areas like **Probe & Inquiry + Practical Session**, **Office Correspondence & Office Management**, and **Civil Servant Act 1974** also received high mean scores (2.95 to 2.89), reflecting participant preference.

These high-ranking areas suggest that participants find topics related to leadership and communication, religious ethics, and regulatory frameworks highly relevant and impactful in their roles as educational leaders.

Objective 3: Explore the Training Gaps Identified by Participants of Promotion Link Trainings for Educational Leaders/Managers (BS-18 to BS-19) in SED Punjab

The lower-ranked areas, identified by their mean scores, highlight the gaps in the training content as perceived by the participants. These areas represent the topics that might need more attention, revision, or a different instructional approach to better meet participant needs.

- **School Improvement Plan** (Mean = 2.24, SD = 0.641), **Micro Teaching** (Mean = 2.24, SD = 0.641), and **Project Work** (Mean = 2.24, SD = 0.723) were among the lowest-rated topics, indicating that participants found these areas less relevant or less effectively covered in the training.

- **Report Writing/Syndicate Work** (Mean = 2.35, SD = 0.633) also had a relatively low score, suggesting a gap in how the training addresses these skills.

These gaps suggest that participants either found these topics less engaging, or that they need a more practical, hands-on approach to be effective in their professional roles.

Summary:

The data supports all three objectives:

1. It measures how participants rank the training topics by providing mean scores and standard deviations.
2. It identifies high-ranking areas like *Holy Prophet (SAW) as Role Model*, *Blooms Taxonomy*, and *Office Correspondence & Office Management*, which are valued by participants.
3. It explores training gaps, revealing areas like *School Improvement Plan*, *Micro Teaching*, and *Project Work* as requiring improvement or adjustment to better meet participants' needs.

Recommendations

Recommendations Based on the Findings and Conclusions

1. **Tailoring Content to Educational Backgrounds:**

- Since PhD holders rated the training more favorably than participants with lower educational qualifications, it is recommended to customize content to better cater to various academic levels. This can be achieved by offering different modules or tracks, allowing participants to engage with material at a depth that matches their expertise.
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- Consider adding supplementary materials or advanced workshops for participants with higher qualifications (e.g., M.Phil. and PhD) to further enhance their learning experience.

2. Enhancing Engagement for Male Participants:

- Given the significant gender disparity in training satisfaction, with female participants rating the program higher, efforts should be made to identify and address the reasons behind male participants' lower engagement. This could include:

- Conducting surveys or focus groups to gather feedback specifically from male participants.

- Introducing interactive or hands-on components that appeal more to male learning styles.

- Including more content relevant to challenges faced by male leaders in education.

3. Improving Delivery of Low-Rated Topics:

- Topics like *School Improvement Plan*, *Micro Teaching*, and *Project Work* received lower ratings, indicating room for improvement. To address this:

- Reassess the content and its practical relevance to participants' roles.

- Incorporate more interactive elements, case studies, or practical examples to enhance engagement.

- Consider seeking participant feedback to identify why these topics were rated lower and how they can be made more applicable.

4. Focusing on Key High-Impact Topics:

- Topics related to leadership, regulatory frameworks, and digital literacy received high ratings and should continue to be a key focus in future training. It is recommended to:

- Expand on these areas with in-depth modules or advanced workshops to allow participants to explore them further.

- Introduce peer-learning opportunities where participants can discuss leadership challenges and strategies in their specific contexts.

5. Segmenting Training Based on Experience Levels:

- Although years of experience did not significantly influence training satisfaction, there were slight differences in ratings across experience groups. Tailoring parts of the training based on participant experience levels could further enhance relevance. For example:

- Offering different streams or discussion groups for participants with different levels of experience could foster more relevant exchanges and knowledge-sharing.

- Designing specific case studies or role-playing scenarios that reflect real-world challenges encountered by participants at various stages in their careers.

6. Increasing Practical Applications:

- To enhance engagement and learning outcomes, the training program could incorporate more practical sessions and real-life applications. For example:

- Expand the use of simulations, role-playing, and problem-solving workshops to make the content more interactive.

- Include group activities that allow participants to work through real-world challenges together, enhancing practical knowledge and peer learning.

7. Continuous Feedback Mechanism:

- Implement an ongoing feedback mechanism during the training to track participant satisfaction in real-time and make adjustments as needed. This can help ensure that areas of

dissatisfaction are addressed promptly.

- Consider using post-session evaluations for each module to get immediate feedback on what worked well and what needs improvement.

8. Further Research into Training Preferences:

- The significant differences in ratings between genders and qualification levels suggest that further research could be beneficial to better understand the diverse preferences and needs of participants. This might involve:

- Conducting pre-training assessments to gauge participants' expectations and needs.
- Using data to customize future training sessions more effectively, ensuring that content remains relevant and impactful.

Conclusion:

By refining content delivery, customizing modules to meet diverse participant needs, and focusing on key areas of interest, future iterations of this training program can further improve its effectiveness and engagement, ultimately leading to greater participant satisfaction and learning outcomes.

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