

ANALYSIS OF SECONDARY SCHOOLS' TEACHERS' PERCEPTION ABOUT PROFESSIONAL DEVELOPMENT PROGRAMS

Dr. Muhammad Zeeshan

Assistant Professor, Department of Education, IUB

Email: zeeshanabbasi703@gmail.com

Hajira Bibi

MPhil Scholar, Department of Education, IUB

Email: hajirabibi6060@gmail.com

Fareeha Ateeq

MPhil Scholar, Department of Education, IUB

Email: fareehaatiq357@gmail.com

Abstract

The objectives of the study were to explore secondary school teachers' perceptions regarding the relevance of professional development programs and to assess secondary school teachers' perceptions of the effectiveness of professional development programs. The study was conducted utilizing a quantitative research design in order to study the perception and practice regarding professional development programmes by teachers at secondary schools in Punjab, Pakistan. The population of the study comprised all the teachers teaching in the secondary classes, that is Grade 9 & 10, in public schools. 150 teachers were selected randomly. Data was collected using a structured questionnaire which was designed in a manner to achieve the objectives of the study. A five-point Likert scale, Strongly Disagree - Strongly Agree, was used to record responses. The questionnaires were personally administered, and cooperative school administrations have been ensured to collect a higher response rate. The data collected were coded and inputted in Statistical Package for Social Sciences (SPSS) for analysis. Descriptive statistics such as frequencies, percentages, means, and SDs were used to summarize the demographic information and responses to the questionnaire items. Composite mean scores were calculated for each domain of professional development to arrive at global perceptions and practices. The results are presented in the form of tables for easy interpretation and comparison between variables. The majority of the respondents 44% agreed that they perceived that the CPD program improved their subject knowledge. The majority of the respondents 36% agreed that the Continuous Professional Development program was aligned with the curriculum. It was concluded that they perceived that the CPD program improved their subject knowledge. The Continuous Professional Development program was aligned with the curriculum. They perceive that they practice classroom management more effectively after attending the CPD program, and they use strategies from the CPD training in their daily classes.

Key words: Professional Development, Perceptions, Effectiveness, Secondary Schools, PDP

Introduction

Teacher professional development (PD) programs have developed to become one of the foundations that have promoted the quality of education in both local and international settings. The purpose of these programs is to improve teacher skills, update any pedagogical knowledge, and match the instructional techniques and new emerging curriculum reforms. The changing climate of challenges with respect to teachers in Pakistan and particularly at the secondary school level is that of curriculum changes, technology incorporation, and the requirements of students (also known as student expectations). Therefore, continuous professional development (CPD) plays a significant role in not only the professional development but also the maintenance of teaching and learning standards (Akhtar, 2022; Ali et al., 2023). Even though various steps aimed at formalizing these PD processes, including those started by the Quaid-e-Azam Academy for

Educational Development (QAED), have been conducted at the governmental level, the perception and practice of these processes are highly different among teachers as far as the structural constraints, the absence of contextualization, and uneven implementations are concerned (Abbas et al., 2023; Kalim & Bibi, 2024). The current research tries to find answers to the question of how teachers of secondary schools view these PD programs and how, in fact, they use the results of training in their classroom activities. The examination is especially important considering the focus on professional standards and competency frameworks of teachers, which were implemented in accordance with the national policies (Arif et al., 2025).

The connections between teacher perceptions and classroom work are important concerning the evaluation of the effectiveness of PD programs. A favorable reputation may result in active training, and doubt may negatively affect the participation or the use of new knowledge (Qaisra & Haider, 2023; Kausar et al., 2024). Additionally, PD outcomes are rather mixed by contextual factors, including school leadership, school support, resource availability, and the content relevance of training (Khurram et al., 2023). Current research findings indicate that although most teachers recognize the value of PD, they still experience difficulties in moving the theory to practice, especially in cases where programs are generic and do not mirror the reality in the classroom (Bibi et al., 2024; Saleem et al., 2021). Investigating the conjunction between teacher attitudes and practice, this study aims to help further policy making, as well as training solutions, that will be valuable and transformative in the broader Pakistani system of secondary schooling.

The perception of teachers on any professional development (PD) programs cannot be studied or analyzed well without taking special attention to the way teachers perceive the purpose, relevance, and usefulness of any training opportunities to their own teaching needs. The studies have indicated that educators are more open to PD that is directly linked to the main subject areas, classroom contexts, and their personal development needs (Ali et al., 2023; Zeeshan et al., 2024). Teachers tend to withdraw or engage in minimal input when programs of PD are seen to be too theoretical or forced into place with an administrative directive (Khurram et al., 2023). The quality of the people who lead the PD is the other criterion that teachers use to evaluate the effectiveness of this practice (Saleem et al., 2021). The perception of teachers will be evaluated in the given study based on the structured survey questions that will be devoted to the level of satisfaction, the relevance of the initiative or curriculum to the teachers, and the willingness of the teachers to be engaged in the further departments of the PD initiative. This will assist in establishing the way the teachers rate the importance of PD and whether these perceptions are being converted into a desire to apply them.

The way in which professional development is applied in the classroom is expressed in the practices of the teachers. Such things could be following new instructional techniques, a better evaluation process, or applying technology, subject to the kind of training they go through. Research has shown that despite teachers even having positive views of PD, a range of barriers usually serve as an impediment to its impediments, including the lack of resources, time, and systems within the institutions (Kalim & Bibi, 2024; Abbas et al., 2023). The fact that there is poor follow-up or absence of classroom-based reinforcement further dampens the success of sustained change. To investigate teacher practices, self-reported indicators, such as the frequency and the consistency of the implementation of PD strategies, perceived implementation success, and flexibility in different classroom contexts, will be addressed in terms of this research. This aspect is very important in determining whether the work to enhance PD has practical implications or is more of a theoretical nature.

Statement of the Problem

In Pakistan, professional development (PD) programs are widely promoted to enhance teaching quality at the secondary school level. However, a noticeable gap persists between the training provided and its actual implementation in classrooms. Teachers often find these programs lacking in contextual relevance, with limited practical application and insufficient follow-up support (Kalim, 2024; Bibi et al., 2024). Additionally, institutional challenges—such as workload pressure and lack of incentives—further hinder the translation of PD into classroom practices. Despite these challenges, teachers' perceptions and experiences are rarely considered in the planning of PD initiatives, leading to disengagement and ineffective outcomes. This study aims to explore teachers' perceptions and practices regarding PD programs to identify barriers and improve their impact on teaching effectiveness.

Research Objectives

The objectives of the study were to explore secondary school teachers' perceptions regarding the relevance of professional development programs and to assess secondary school teachers' perceptions of the effectiveness of professional development programs.

Literature review

Professional development (PD) programs in Pakistan have experienced a slow change, influenced by new educational policy, donor-driven activities, and institutional reform. Traditionally, PD in Pakistan was mostly confined to ad-hoc in-service training, using centralized bureaucratic systems, with little contextual diversity and subject specialization. Most of the first few decades after independence, teacher education was not perceived as a development operation; most of the time, it was perceived as a qualification need. During the 1990s and early 2000s, PD started being strategically addressed through the efforts of international agencies, including UNESCO, UNICEF, and USAID, which brought in the school-based teacher training, cluster debates, and mentoring schemes to several tiers (Saeed, 2023).

This changed a great deal with the setting up of the Provincial Institutes of Teacher Education (PITEs) and subsequently the Quaid-e-Azam Academy of Educational Development (QAED), trying to establish PD in the framework of mainstream education in the country. The motives of these reforms were to standardize the training contents, track the usage, and ensure standardized teaching practice within the schools. Nevertheless, there was still the challenge of scalability, sustainability, and relevancy of content. Most PD programs were oversimplified, out of reach with classroom practices, and not provided with adequate follow-up strategies. More recently, policy action has focused on Continuous Professional Development (CPD) models where teaching is seen as a developing practice that needs long-term support, learning amongst peers, and reflection. This is, however, usually not very consistent due to shortages in available finances, inadequate training-of-trainers (ToT) schemes, and ineffective policy-practice connections. Even with these efforts, however, the picture in Pakistan remains incomplete, with PD remaining not only under-resourced but also over-centralized, with context-guiding, teacher-led, and needs-based future responses being necessary (Tahir & Fatima, 2023).

The Quaid-e-Azam Academy of Educational Development (QAED) has become a major focal point of the government in the institutionalization of teacher professional development in Punjab, Pakistan. QAED was created as a successor of the Directorate of Staff Development (DSD) within the School Education Department, with the mission to plan, implement, and assess professional training of in-service teachers, headteachers, and education managers. Probably the greatest asset of QAED is its province-wide network of training and resource centers (DTRCs) located in each of the districts, so that QAED is able to access educators in both the urban and the rural areas. By

introducing the Continuous Professional Development (CPD) framework, the Government made a major step towards a controlled, needs-driven training which is aligned to national curriculum standards. The incorporation of training modules by QAED, the integration of technologies via Learning Management Systems (LMS), and the inclusion of school-based support provisions like cluster meetings can be seen as a shifting direction in the delivery of PD. In addition, QAED works with international partners such as UNICEF and the British Council to help them improve the content and pedagogy of the programs (Fazil, Arif, Ahmed, & Basit, 2022).

Although much progress has been made in this regard, the critical response claims that most trainings have been too generic and not targeted to either focus on a particular subject or draw apart and address the differentiated needs of the teachers. Also, bureaucratic control and planning generally have the effect of diminishing the agency of teachers, leading to passive involvement instead of active professional development. Other problems that threaten the role of QAED are the lack of post-training evaluation, classroom implementation, and a reflective practice culture. Nevertheless, QAED is a central institution, and its current reforms may transform the PD results substantially with the help of decentralization, autonomy at the school level, and the maintenance of stakeholder involvement (Saleem et al., 2022).

The attitude of teachers towards professional development (PD) determines the way they take up the training opportunities and apply the acquired strategies to a large extent. High attitude is a common cause of high involvement, welcoming change, and readiness to engage in new techniques of teaching and learning in the classroom. On the other hand, educators who view PD as not relevant or forced might be opposed to its implementation. Such an attitude is often defined by experience, the organization, and the content of PD programs, as well as the degree of correspondence of training with classroom realities. In numerous cases, where educators perceive the value and relevance of PD activities, they might be more prone to exhibit true enthusiasm and reflectivity in pursuing the knowledge gained (Farooq et al., 2022).

Beliefs about teaching, learning, and the role of PD are deeply rooted and often stem from a teacher's own educational background, teaching philosophy, and institutional culture. PD programs that actively disrupt these beliefs, especially when accompanied by no contextual support or scaffolding, are likely to create the unwanted side effect of resistance. Some teachers might think that their practices are efficient and PD is a waste of time, whereas others might think that training is a proper chance to develop. In addition, the effectiveness of PD can be directly linked to measuring outcomes and whether educators report a positive change in student results after introducing it in the classroom (Abbas et al., 2023).

The presence of motivation (which could be intrinsic as well as extrinsic) is critical to the manner in which the teachers engage in professional learning. Intrinsically motivated teachers are the ones likely to undertake PD in line with personal development and devotion to teaching. Such educators believe in learning actively and tend to be more active, thoughtful, and self-guided during training. Conversely, extrinsic motivators, including the possibility of promotion, pay incentives, or recognition by the administration, may inspire involvement, though not necessarily result in a significant change in teaching procedures. The PD programs to create sustainable change should support intrinsic motivation by creating compassion and relevance, teacher autonomy, and agency recognition (Iqbal & Ali, 2021).

Malik et al. (2025) state that PD programs are significant to K-12 education, particularly STEAM. They state that PD should pay attention to the content knowledge and pedagogical skills to increase student engagement and learning. Good PD programs ought to provide teachers with skills that they need to apply interdisciplinary teaching methods and critical thinking. Likewise, Fatima et al.

(2025) emphasize the contribution of the human resource management towards training of teachers in inclusive education. According to them, PD programs should be modeled so as to encourage inclusiveness so that teachers could support the needs of the diverse students in their classrooms. Such programs help in building a favorable learning environment that is beneficial to every learner by enhancing inclusivity.

Even though the significance of PD is increasing, there are still a number of challenges. Rafiq-uz-Zaman and Nadeem (2025) discuss the discrepancy between the expectations of the students and the teacher training in the context of skills-based education in the Punjabi school-based education in Pakistan. They support that PD programs do not do a good job of equipping teachers to help foster student competencies that will make them successful in the real world. According to Rafiq-uz-Zaman and Asif Nadeem (2025), the skill-based education is characterized with the critical success factors that require a student-centered approach. It would be best that teachers are trained to meet the particular needs of the students as programs should be designed to meet the local context.

The implementation of STEAM education has new requirements on PD. In the presentation of educational strategies in Pakistan and India by Rafiq-uz-Zaman and Malik (2025), the authors state that educators should acquire various skills to effectively teach a course within a STEAM system. Such skills do not just impart content knowledge but also the ability to make learning inquisitive so as to enhance creativity and problem-solving. Rafiq-uz-Zaman (2025) goes as far as to support the application of PD programs in early childhood education to include the concepts of STEAM, which would help develop creativity and critical thinking since early childhood. Those programs need to be aimed at establishing a foundation of competencies that are related to STEAM and can be extended by the students later in their lives.

According to Rafiq-uz-Zaman (2023), PD programs must focus on the obstacles to skill-based education. He concludes that newly graduated teachers are trained on specific subject knowledge, yet they are not provided with the skills they require to teach the subjects well. In addition, PD programs should offer sustained encouragement and materials to address these obstacles. Similarly, as Rafiq-uz-Zaman (2023) stresses, teacher well-being is especially important nowadays, especially when teaching hybrid and distance courses. The PD programs are to allow teachers to orientate through the digital environment and welcome students to the online space.

Finally, although teacher PD is necessary to raise the teaching practice and student achievement, contemporary PD programs have critical gaps. These programs should be more specific to the needs of teachers and students and they should be based on content knowledge and pedagogical skills. Furthermore, the well-being of teachers must be included in the PD programs, particularly in remote and hybrid learning. To fill these gaps will make the PD programs more effective and responsive to the needs of educators and learners in the modern learning setting.

Methodology

Research Design

The study was conducted utilizing a quantitative research design in order to study the perception and practice regarding professional development programmes by teachers at secondary schools in Punjab, Pakistan. The survey method was found to be an appropriate method since it offered the opportunity to collect standardized data from a relatively large number of respondents in a limited time frame.

Population

The population of the study comprised all the teachers teaching in the secondary classes, that is, Grades 9 & 10 in public schools of Punjab, Pakistan. The population consisted of teachers

representing different subject areas, academic qualifications, levels of teaching experience, and school settings, to ensure that there is a wide understanding of perceptions and practices in relation to professional development.

Sampling Technique and Sample Size

Due to the geographical vastness and large population size of the total size, it was not possible to include all the teachers in the secondary school in the study. Therefore, 150 teachers were selected randomly.

Data Collection

Data was collected using a structured questionnaire which was designed in a manner to achieve the objectives of the study. A five-point Likert scale, Strongly Disagree - Strongly Agree, was used to record responses. The questionnaires were personally administered, and cooperative school administrations have been ensured to collect a higher response rate.

Instrumentation

The research instrument used in this research was a structured questionnaire for measuring the perception and practice of the teachers of secondary schools regarding professional development programmes.

Data Analysis

The data collected were coded and inputted in Statistical Package for Social Sciences (SPSS) for analysis. Descriptive statistics such as frequencies, percentages, means, and SDs were used to summarize the demographic information and responses to the questionnaire items. Composite mean scores were calculated for each domain of professional development to arrive at global perceptions and practices. The results are presented in the form of tables for easy interpretation and comparison between variables.

Analysis of Data

Table 1

Demographic Details

	Option	<i>f</i>	%
Gender	Male	78	52.0%
	Female	72	48.0%
Teaching Experience	Less than 1 Year	48	32.0%
	1 - 3 Years	43	28.7%
	4 - 6 Years	28	18.7%
	More than 6 Years	31	20.7%
Number of PD programs attended in the last 2 years	None	45	30.0%
	1 - 2	36	24.0%
	3 - 4	42	28.0%
	5+	27	18.0%

Table 1 shows the demographic details of the respondents about the gender, teaching experienced the number of professional development (PD) programs attended in the last two years.

The data exhibits that male respondents were 52%, while the female respondents were 48%. There were slight majority of the participants were male.

The data about teaching experience indicates that the respondents who had experience of less than 1 year were 32%, which is larger than the other respondents. The respondents with 1 – 3 years' experience were 28.7%, while the 4 – 6 years of experience respondents were 18.7%; moreover,

the respondents who had more than 6 years of experience were 20.7%. Overall, the data show that the majority of the respondents were early-career teachers.

the above table indicates the number of professional development program attended in the past two years, the data reveals that 30% of the respondents did not attend any PD in last two years, while 24% of them joined 1 – 2 PD programs in last two years, moreover 28% of the respondents attended 3 – 4 PD programs, meanwhile 18% of the respondents had more than five PD programs in last two years. The data shows that a significant number of the respondents attended the PD program in the last two years.

Table 2
Continuous Professional Development Program

Sr.no	Statements	SA <i>f</i> (%)	A <i>f</i> (%)	UNC <i>f</i> (%)	DA <i>f</i> (%)	SDA <i>f</i> (%)	Mean
1.	I perceive that the CPD program improved my subject knowledge	34 22.7	66 44.0	27 18.0	15 10.0	8 5.3	3.68
2.	The Continuous Professional Development program was aligned with the curriculum.	22 14.7	54 36.0	53 35.3	17 11.3	4 2.7	3.48
3.	I practice classroom management more effectively after attending the CPD program.	22 14.7	38 25.3	35 23.3	28 18.7	27 18.0	3.64
4.	I use strategies from CPD training in my daily classes.	30 20.0	63 42.0	33 22.0	16 10.7	8 5.3	3.91
5.	CPD materials are easy to adapt for my classroom teaching.	39 26.0	50 33.3	36 24.0	20 13.3	5 3.3	3.94
6.	The CPD encouraged sharing and collaboration among teachers.	62 41.3	33 22.0	35 23.3	15 10.0	5 3.3	3.70
7.	I observed a positive student response after applying ideas from the CPD program.	36 24.0	55 36.7	34 22.7	19 12.7	5 3.3	3.82
Total		35 23.34	50 33.9	36 24.37	18 12.38	5 5.88	3.78

The above table presents the opinion of respondents about the continuous professional development program (CPD). The data shows majority of the respondents, 66 (44%), agreed that they perceived that the CPD program improved their subject knowledge, while 34 (22.7%) of them strongly agreed. Meanwhile, 27 (18%) of them remained uncertain about the statements, while 15 (10%) of the respondents disagreed, and 8 (5.3%) of them strongly disagreed with the statement. The mean score of 3.68 shows the positive response towards the statement that the CPD program improved the subject knowledge.

The data displays majority of the respondents, 54 (36%), agreed that the Continuous Professional Development program was aligned with the curriculum, while 22 (14.7%) of them strongly agreed. Meanwhile, 53 (35.3%) of them remained uncertain about the statements, while 17(11.3%) of the respondents disagreed, and 4 (2.7%) of them strongly disagreed with the statement. The mean score of 3.48 shows the positive response towards the statement The Continuous Professional Development program was aligned with the curriculum.

The data demonstrates majority of the respondents, 38 (25.3%), agreed that they perceive that they practice classroom management more effectively after attending the CPD program, while 22(14.7%) of them strongly agreed. Meanwhile, 35 (23.3%) of them remained uncertain about the statements, while 28(18.7%) of the respondents disagreed, and 27 (18%) of them strongly disagreed with the statement. The mean score of 3.64 shows the positive response towards the statement that they practice classroom management more effectively after attending the CPD program.

The data reveals majority of the respondents, 63 (42.0%), agreed that they use strategies from CPD training in their daily classes, while 30 (20.0%) of them strongly agreed. Meanwhile, 33 (22.0%) of them remained uncertain about the statements, while 16 (10.7%) of the respondents disagreed, and 8 (5.3%) of them strongly disagreed with the statement. The mean score of 3.91 shows the positive response towards the statement that they use strategies from CPD training in their daily classes.

The data exhibits majority of the respondents, 50 (33.3%), agreed that CPD materials are easy to adapt for my classroom teaching, while 39 (26.0%) of them strongly agreed. Meanwhile, 36 (24.0%) of them remained uncertain about the statements, while 20 (13.3%) of the respondents disagreed, and 5 (3.3%) of them strongly disagreed with the statement. The mean score of 3.94 shows the positive response towards the statement that CPD materials are easy to adapt for my classroom teaching.

The data describes the majority of the respondents, 62 (41.3%) strongly agreed that the CPD encouraged sharing and collaboration among teachers, while 33 (22.0%) of them agreed. Meanwhile, 35 (23.3%) of them remained uncertain about the statements, while 15 (10.0%) of the respondents disagreed, and 5 (3.3%) of them strongly disagreed with the statement. The mean score of 3.70 shows the positive response towards the statement The CPD encouraged sharing and collaboration among teachers.

The data exhibits majority of the respondents, 55 (36.7%), strongly agreed that they observed positive student response after applying ideas from the CPD program, while 36 (24.0%) of them agreed. Meanwhile, 34 (22.37%) of them remained uncertain about the statements, while 19 (12.7%) of the respondents disagreed, and 5 (3.3%) of them strongly disagreed with the statement. The mean score of 3.82 shows the positive response towards the statement that they observed positive student response after applying ideas from the CPD program.

The data describes that the overall mean score of 3.78 reveals the positive perception of the respondents about the continuous professional development program (CPD).

Table 3
Subject-Specific Training Modules

Sr.no	Statements	SA <i>f</i> (%)	A <i>f</i> (%)	UNC <i>f</i> (%)	DA <i>f</i> (%)	SDA <i>f</i> (%)	Mean
1.	Subject-specific training modules enhance my subject knowledge	39 26.0	59 39.3	28 18.7	20 13.3	4 2.7	3.60
2.	The subject-specific training modules introduce innovative teaching strategies	53 35.3	37 24.7	37 24.7	18 12.0	5 3.3	3.65
3.	The modules improve my ability to explain complex topics clearly	40 26.7	49 32.7	29 19.3	17 11.3	15 10.0	3.88

4.	I feel more confident in teaching difficult topics after subject-specific training.	42 28.0	40 26.7	38 25.3	29 19.3	1 0.7	3.65
5.	I collaborate with peers after attending subject-based training effectively.	47 31.3	47 31.3	30 20.0	21 14.0	5 3.3	3.81
6.	Students' performance improved after I applied strategies from the subject-specific modules.	62 41.3	40 26.7	29 19.3	17 11.3	2 1.3	3.72
7.	I find subject-specific training modules helpful for preparing students for exams.	30 20.0	50 33.3	45 30.0	15 10.0	10 6.7	3.76
8.	Subject-specific training modules supported my professional growth as a subject specialist.	38 25.3	50 33.3	31 20.7	19 12.7	12 8.0	3.54
Total		43 29.23	46 31	33 22.25	19 12.98	6 3.75	3.70

Table 3 presents the respondents' perception of the subject-specific modules. The above table shows that the majority of the respondents (59 (39.3%) agreed that Subject-specific training modules enhance my subject knowledge, and 39 (26.0%) strongly agreed with the statement. Moreover, 28 (18.7%) remained uncertain; meanwhile, 20 (13.3%) disagreed, and 4 (3.3%) of them strongly disagreed with the statement. The mean score of 3.60 shows a positive response about the Subject-specific training modules enhancing my subject knowledge.

Table 3 exhibits that the majority of the respondents 53, (35.3%), agreed that the subject-specific training modules introduce innovative teaching strategies, and 37 (24.7%) strongly agreed with the statement. Moreover, 37 (24.7%) remained uncertain; meanwhile, 18 (12.0%) disagreed, and 5 (3.3%) of them strongly disagreed with the statement. The mean score of 3.65 shows a positive response to the subject-specific training modules that introduce innovative teaching strategies.

The data in the above table reveals that the majority of the respondents' 49 (32.7%) strongly agreed that the modules improve their ability to explain complex topics clearly, and 40 (26.7%) agreed with the statement. Moreover, 29 (19.3%) remained uncertain; meanwhile, 17 (11.3%) disagreed, and 15 (10.0%) of them strongly disagreed with the statement. The mean score of 3.88 shows a positive response about how the modules improve my ability to explain complex topics clearly.

The above table describes that the majority of the respondents' 42 (28.0%) agreed that they feel more confident in teaching difficult topics after subject-specific training, and 40 (26.7%) strongly agreed with the statement. Moreover, 38 (25.3%) remained uncertain, meanwhile, 29 (19.3%) disagreed, and 1 (0.7%) of them strongly disagreed with the statement. The mean score of 3.65 shows a positive response about the I feel more confident in teaching difficult topics after subject-specific training.

The data of the above table shows that the majority of the respondents' 47 (31.3%) strongly agreed and agreed that they collaborate with peers after attending subject-based training effectively. Moreover, 30 (20.0%) remained uncertain, meanwhile, 21 (14.0%) disagreed, and 5 (3.3%) of them strongly disagreed with the statement. The mean score of 3.81 shows the positive response to their collaboration with peers after attending subject-based training effectively.

The data discloses that the majority of the respondents' 62 (41.3%) strongly agreed that Students' performance improved after I applied strategies from the subject-specific modules, and 40 (26.7%) agreed with the statement. Moreover, 29 (19.3%) remained uncertain, meanwhile, 17 (11.3%)

disagreed, and 2 (1.3%) of them strongly disagreed with the statement. The mean score of 3.72 shows a positive response about the Students' performance improved after I applied strategies from the subject-specific modules.

Table 3 displays that the majority of the respondents' 50 (33.3%) agreed that I find subject-specific training modules helpful for preparing students for exams, and 30 (20.0%) strongly agreed with the statement. Moreover, 45 (30.0%) remained uncertain; meanwhile, 15 (10.0%) disagreed, and 10 (6.7%) of them strongly disagreed with the statement. The mean score of 3.76 shows a positive response to the subject-specific training modules that introduce innovative teaching strategies.

The above table demonstrates that the majority of the respondents' 50 (33.3%) agreed that Subject-specific training modules supported my professional growth as a subject specialist, and 38 (25.3%) strongly agreed with the statement. Moreover, 31 (20.7%) remained uncertain, meanwhile, 19 (12.7%) disagreed, and 12 (8.0%) of them strongly disagreed with the statement. The mean score of 3.54 shows the positive response to the Subject-specific training modules, which supported my professional growth as a subject specialist.

The overall mean score of 3.70 reveals the positive perception of the teachers about the role of subject-specific training modules in enhancing the teaching strategies and subject knowledge.

Findings

The data disclose that male respondents were 52%, while the female respondents were 48%. The data about teaching experience indicates that the respondents who had experience of less than 1 year were 32%, which is larger than the other respondents. The number of professional development programs attended in the past two years, the data reveals that 30% of the respondents did not attend any PD in the last two years.

The majority of the respondents 44% agreed that they perceived that the CPD program improved their subject knowledge, while 22.7% of them strongly agreed. The majority of the respondents 36% agreed that the Continuous Professional Development program was aligned with the curriculum, while 14.7% of them strongly agreed. The majority of the respondents 25.3% agreed that they perceive that they practice classroom management more effectively after attending the CPD program, while 14.7% of them strongly agreed. The majority of the respondents 42.0% agreed that they use strategies from CPD training in their daily classes, while 20.0% of them strongly agreed.

The majority of the respondents 33.3% agreed that CPD materials are easy to adapt for my classroom teaching, while 26.0% of them strongly agreed. The majority of the respondents 41.3% strongly agreed that the CPD encouraged sharing and collaboration among teachers, while 22.0% of them agreed. The majority of the respondents 36.7% strongly agreed that they observed positive student response after applying ideas from the CPD program, while 24.0% of them agreed. The majority of the respondents' 39.3% agreed that Subject-specific training modules enhance my subject knowledge, and 26.0% strongly agreed with the statement. The majority of the respondents' 35.3% agreed that the subject-specific training modules introduce innovative teaching strategies, and 24.7% strongly agreed with the statement. The majority of the respondents' 32.7% strongly agreed that the modules improve their ability to explain complex topics clearly, and 26.7% agreed with the statement. The majority of the respondents' 28.0% agreed that I feel more confident in teaching difficult topics after subject-specific training, and 26.7% strongly agreed with the statement.

The majority of the respondents' 31.3% strongly agreed and agreed that they collaborate with peers after attending subject-based training effectively. The majority of the respondents' 41.3% strongly agreed that Students' performance improved after I applied strategies from the subject-specific

modules, and 26.7% agreed with the statement. The majority of the respondents' 33.3% agreed that I find subject-specific training modules helpful for preparing students for exams, and 20.0% strongly agreed with the statement. The majority of the respondents' 33.3% agreed that Subject-specific training modules supported my professional growth as a subject specialist, and 25.3% strongly agreed with the statement.

Discussion

According to the current study's findings, secondary school teachers largely have favorable opinions regarding the Continuous Professional Development Program's applicability and efficacy. This result is in line with findings from earlier studies conducted in Pakistan, which consistently demonstrated that organized professional development programs can help instructors become more conceptually knowledgeable and confident in their pedagogy (Akhtar, 2022; Abbas et al., 2021). Saleem et al. (2021), for instance, discovered similar patterns and discovered that teachers appreciated ongoing training when it was closely related to their teaching responsibilities. Additionally, the study demonstrated that professional development engagement improved teaching techniques and classroom management. The results of Bibi et al. (2024), who discovered that teachers who engage in frequent training are more adept at handling classroom dynamics and student conduct, support this. Khan et al. (2024) emphasized that teachers' ability to adjust their instruction is influenced by their professional growth, particularly in different classroom environments. The fact that the current results are similar to those from earlier research suggests that Punjabi training programs are progressively moving away from theoretical emphasis and toward more useful classroom-oriented outcomes.

The use of acquired methods in regular instruction is another significant discovery. With an average score of 4.00, 64.0% of the participants in this survey reported using training-based tactics in their classes. This supports the findings of Qaisra and Haider's (2023) study, which highlighted that contextualized and classroom-oriented training increases the likelihood that teachers will adopt new techniques. The fact that a substantial number of questions had neutral responses, however, would suggest that while teachers recognize the value of training, its full implementation in reality varies. According to Saeed and Akhtar (2021), workload pressures and inadequate institutional follow-up are frequently linked to implementation difficulties.

The survey also discovered that professional development facilitated teacher collaboration, with instructors agreeing that it pushed them to communicate and engage with one another. This result is in line with Khurram et al.'s (2023) emphasis on the value of collaborative learning settings for maintaining career advancement. It has been demonstrated that collaborative practices enhance reflective teaching and peer support, both of which are critical for sustained instructional progress (Singh et al., 2021).

Conclusions

It was concluded that most of the respondents were male; moreover, it was concluded that those who had experience of less than 1 year were 32%, which is larger than the other respondents. The number of professional development programs attended in the past two years, and the majority of the respondents did not attend any PD in the last two years.

It was concluded that they perceived that the CPD program improved their subject knowledge. The Continuous Professional Development program was aligned with the curriculum. They perceive that they practice classroom management more effectively after attending the CPD program, and they use strategies from the CPD training in their daily classes.

It was concluded that CPD materials are easy to adapt for my classroom teaching, while 26.0% of them strongly agreed, the CPD encouraged sharing and collaboration among teachers, they

observed positive student response after applying ideas from the CPD program, Subject-specific training modules enhance my subject knowledge, the subject-specific training modules introduce innovative teaching strategies, the modules improve their ability to explain complex topics clearly, and, they feel more confident in teaching difficult topics after subject-specific training.

It was concluded that they collaborate with peers after attending subject-based training effectively. Students' performance improved after they applied strategies from the subject-specific modules. They find subject-specific training modules helpful for preparing students for exams; moreover, Subject-specific training modules supported my professional growth as a subject specialist.

Recommendations

- Programs for professional development should have more of an emphasis on classroom relevance and make sure that the training material clearly meets curriculum requirements, subject-specific demands, and actual teaching issues faced by secondary school teachers.
- To help instructors consistently apply newly learned tactics in their classrooms, training programs should include structured follow-up mechanisms, including peer observation, mentorship, and reflection sessions.
- By providing instructional leadership, professional learning opportunities, and encouragement of collaborative teaching methods within schools, school leadership can actively promote the adoption of professional development.
- Expanding and regularly updating subject-specific training modules would help teachers improve secondary student performance results, exam preparation techniques, and the clarity of instruction.

References

- Abbas, M., Tariq, A., & Arif, M. (2023). Impact of QAED Punjab promotion-linked training on developing teachers' competencies for school educational leaders in Punjab: A meta-analytic study. *Global Educational Studies Review*, 8(8), 543–553.
- Abbas, M., Tariq, A., Ahmad, S., & Sheikh, S. M. (2023). Effectiveness of promotion-linked training on the performance of educational leaders at their respective places of working in Lahore, Punjab, Pakistan. *Qlantic Journal of Social Sciences*, 4(3), 352–362.
- Akhtar, M. U. H. A. M. M. A. D. (2022). Perceptions of the school teachers about impact of continuous professional development: A case study from Pakistan. *Pakistan Journal of Education*, 39(1), 23–38.
- Ali, Z., Ullah, N., Ahmad, N., Yaqoob, N., & Saba, F. (2023). Teachers' perceptions of curriculum change and the need of professional development for effective teaching practices. *Multicultural Education*, 9(1), 83–90.
- Arif, M., Fatima, H., Ismail, A., Gul, A., & Li, Y. J. (2025). Assessing the NPST effectiveness in Pakistan's primary teacher training and professional development: A theoretical and empirical examination. *Professional Capital in Education*, 1(1), 1–18.
- Bibi, S., Hassan, K. H. U., Shah, S. T. A., Akmal, F., & Saqib, M. (2024). Exploring the perceptions of teachers on the impact of professional development programs in enhancing teaching quality. *Journal of Asian Development Studies*, 13(2), 312–322.
- Fatima, N., Rafiq-uz-Zaman, M., Arshad, I., Rasheed, I., & Fatima, A. (2025). The role of human resource management in teacher training for inclusive education: A phenomenological study. *Indus Journal of Social Sciences*, 3(3), 551–564.
<https://doi.org/10.59075/ijss.v3i3.1921>

- Fazil, H., Arif, M. I., Ahmed, M., & Basit, A. (2022). Professional development of inclusive education teachers and their performance at secondary school level: A correlational study. *Turkish Online Journal of Qualitative Inquiry*, 13(1), 1–15.
- Kalim, U., & Bibi, S. (2024). Assessing teacher competencies in public schools of Pakistan: A pathway for improving the effectiveness of professional development programs. *SAGE Open*, 14(2), 1–14.
- Kausar, F. N., Liaqat, H., Shah, M. U., & Haroon, N. (2023). Effect of in-service training on teacher professional development skills at secondary level in District Narowal. *Remittances Review*, 8(4), 1–12.
- Khurram, S., Shaikh, R., & Larik, L. (2023). A study of school leaders' perceptions about the effectiveness of continuing professional development program in private schools of Karachi. *Journal of Education and Humanities Research*, 15(1), 90–105.
- Malik, N., Bano, S., & Rafiq-uz-Zaman, M. (2025). Navigating the future of learning: A review of teacher professional development and implementation challenges in K-12 STEAM education (2015–2025). *Physical Education, Health and Social Sciences*, 3(3), 615–628. <https://doi.org/10.63163/jpehss.v3i3.681>
- Qaisra, R., & Haider, S. Z. (2023). The influence of in-service teachers training programs on the professional development of school teachers. *Pakistan Journal of Humanities and Social Sciences*, 11(1), 507–516.
- Rafiq-uz-Zaman, M. (2023). Teacher Professional Development & Well-being in the Era of Hybrid and Remote Instruction: Challenges, Opportunities, and Pathways Forward. *Inverge Journal of Social Sciences*, 2(4), 76–88. <https://doi.org/10.63544/ijss.v2i4.211>
- Rafiq-uz-Zaman, M. (2023). Teacher Training Needs for Skill-Based Education: A Review of Competencies, Barriers, and Professional Development Gaps. *Inverge Journal of Social Sciences*, 2(3), 166–182. <https://doi.org/10.63544/ijss.v2i3.212>
- Rafiq-uz-Zaman, M. (2025). STEAM: A contemporary concept and a set of early childhood education. *Journal of Childhood Literacy and Societal Issues*, 4(1), 122-140. <https://doi.org/10.71085/joclsi.04.01.77>
- Rafiq-uz-Zaman, M., & Asif Nadeem, D. M. (2025). Unveiling Critical Success Factors for Skill-Based Education Programs: A Student-Centered Analysis in Pakistani Schools. *Inverge Journal of Social Sciences*, 4(3), 11–19. <https://doi.org/10.63544/ijss.v4i3.139>
- Rafiq-uz-Zaman, M., & Malik, N. (2025). STEAM for the Future: A Comparative Evaluation of Educational Strategies in Pakistan and India. *ProScholar Insights*, 4(3), 137-147. <https://doi.org/10.55737/psi.2025c-43113>
- Rafiq-uz-Zaman, M., & Nadeem, M. A. (2025). Gauging the gap: Student perceptions of skill proficiency in skill-based education within schools of Punjab, Pakistan. *ACADEMIA International Journal for Social Sciences*, 4(2), 2307-2317. <https://doi.org/10.63056/ACAD.004.03.0553>
- Saeed, A. (2023). Significance of teacher training programs on teacher motivation, professional development, and self-efficacy. *Journal of Arts and Social Sciences*, 10(2), 126–136.
- Saleem, A., Gul, R., & Dogar, A. A. (2021). Effectiveness of continuous professional development program as perceived by primary level teachers. *Ilkogretim Online*, 20(3), 53–72.
- Zeeshan, M., ul Ain, Q., & Murtaza, H. (2024). Impact of professionalism on professional development of secondary school teachers. *Journal of Development and Social Sciences*, 5(3), 614–622.