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Continuous Professional Development and Performance of Secondary School Teachers District Toba Tek Sing, Punjab, Pakistan

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Abstract: Continuous professional development (CPD) plays a crucial role in enhancing the performance of secondary school teachers. This article explores the intersection of continuous professional development (CPD) and the performance of secondary school teachers. The research population comprises all head teachers and teachers in the study area. The quasi-experimental design applies to the 10 head teachers and 100 teachers. A Google Form was created for administering surveys. The study found the engagement of teachers in CPD activities, the influence of CPD on teaching effectiveness, and the challenges faced in CPD implementation. The findings also suggest a positive correlation between CPD and teacher performance, with notable improvements in teaching techniques and student learning outcomes. The barriers such as time constraints, funding, and lack of study leave pose challenges to the continuous professional development of teachers. The study underscores the need for ongoing professional development and the frequent organization of capacity-building workshops and seminars.

Key Words: CPD, Teacher Performance, Learning Outcomes, Teaching Effectiveness, Pedagogical Skills

Introduction

Continuous Professional Development (CPD) is a crucial aspect of education that ensures the growth and effectiveness of teachers (Saleem, Gul, & Dogar, 2021). CPD plays a significant role in enhancing the efficiency of primary school teachers in the Toba Tek Singh area of Punjab, Pakistan. Continuous Professional Development Program (CPD) is conducted by the Higher Education Commission (Bugti, Sarhandi, & Bugti, 2022). This program provides a variety of capacity-building and

refresher courses for teaching staff at higher education institutions around the country (Saleem, Gul, & Dogar, 2021). The primary goals of CPD are to educate instructors on specific topics and educational methods, enable teachers to gain knowledge, skills, and strategies for successful teaching, and give universities and graduate program organizations with latest tools, teaching knowledge, and techniques relating to their fields (Saleem & Ashiq, 2020).

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The performance of primary school teachers is commendable. When compared to all the districts of Punjab, the learning levels in English, Math, and Urdu are good (Khan & Siddiqui, 2023). Toba Tek Singh ranks in the Top 10 in learning levels in these subjects. Only 37% of mothers have completed primary education in Toba Tek Singh, indicating the importance of teacher performance in the district (Dahri et al., 2021). The impact of CPD on teacher performance is evident in the district of Toba Tek Singh. All fifteen professional development activities offered in the CPD program are somewhat engaged in by teachers. (Shahzad et al., 2023). There are no substantial attitudes of male and female instructors regarding their participation in CPD activities. Teachers place a high importance on tasks such as producing research papers, reviewing journal articles, and developing teaching and learning materials. Teachers in science fields, on the other hand, participate in more CPD activities than teachers of social sciences (Singh, Rind, & Sabur, 2021).

Despite the positive impact of CPD, there obstacles teachers' to continuing are professional growth. Time, money, and the inability to take study leaves are all big impediments. To address these issues, it is advised that university professors' Professional growth should be considered as a continuous activity. Universities must arrange and provide workshops and seminars regularly to aid academics in enhancing their academic and research abilities (Saleem, Gul, & Dogar, 2021). These challenges also present opportunities. For instance, schools can allocate dedicated time for CPD activities, provide necessary resources, and create a supportive environment for professional growth. Furthermore, CPD programs can be designed based on the feedback and input from the teachers themselves, ensuring that their actual needs are met (Dilshad, Hussain, & Batool, 2019). CPD is not just about attending workshops or seminars; it's a lifelong process of learning and growing professionally. It helps teachers stay relevant in their field, equips them with the necessary skills to handle the changing dynamics of the classroom, and fosters a culture of learning among students. In essence, a teacher who is continuously learning sets a positive example for students to follow (Adrees & Bakhsh, 2019).

The performance of secondary school teachers in Toba Tek Singh can be significantly improved through well-planned and effectively implemented CPD programs. It is important for all stakeholders school management, teachers, and the education department - to work together in this regard. With a commitment to continuous learning and professional growth, the quality of education in Toba Tek Singh can reach new heights. There is a strong correlation between CPD and teacher performance. Teachers who engage in regular CPD activities tend to be more confident, competent, and effective in their teaching practices. They are better equipped to handle diverse classrooms, implement innovative teaching strategies, and contribute positively to the overall learning environment. In Toba Tek Singh, a district with a mix of urban and rural areas, the challenges for teachers can be quite diverse. CPD programs tailored to the specific needs of this district can help teachers overcome these challenges and improve their performance (Derakhshan et al., 2020).

Statements of the Problems

The recognized importance of Continuous Professional Development (CPD) in enhancing the performance of teachers, seems to be a gap its effective implementation among secondary school teachers in the Toba Tek Singh district of Punjab, Pakistan. This gap is evident in the varying levels of teaching proficiency, classroom management skills, and overall performance of teachers. Many teachers may not be fully aware of the importance of CPD and how it can help them improve their teaching skills and performance. There may be a lack of adequate and relevant CPD opportunities for secondary school teachers in the district. There may be insufficient support from the school administration or the education department for teachers' CPD. There may be a gap between what teachers learn in CPD programs and what they practice in the

classroom. The aforementioned issues may ultimately impact the quality of student learning in the district. This research aims to investigate these problems in detail and propose strategies to enhance the effectiveness of CPD for secondary school teachers in the Toba Tek Singh district. The ultimate goal is to improve the quality of education in the district through enhanced teacher performance.

Objectives

- 1. To investigate the current state of Continuous Professional Development among secondary school teachers in the Toba Tek Singh district.
- 2. To identify strategies to enhance the effectiveness of CPD for secondary school teachers in the Toba Tek Singh district.

Research Questions

- RQ1: What is the current state of Continuous Professional Development among secondary school teachers in the Toba Tek Singh district?
- RQ2: What are the main challenges that hinder the effectiveness of CPD for secondary school teachers in the Toba Tek Singh district?
- RQ3: What strategies can be implemented to enhance the effectiveness of CPD for secondary school teachers in the Toba Tek Singh district?

Hypotheses

- H1: There is a significant gap in the current state of Continuous Professional Development among secondary school teachers in the Toba Tek Singh district.
- H2: Implementing specific strategies can significantly enhance the effectiveness of CPD for secondary school teachers in the Toba Tek Singh district.

Significant Of Study

The study will provide insights into how Continuous Professional Development (CPD) can enhance the performance of secondary school teachers. This can lead to improved teaching practices and better student outcomes. By investigating the current state of CPD, the study can help identify gaps and challenges in the existing CPD programs. This can inform the development of more effective CPD strategies tailored to the needs of teachers in the Toba Tek Singh district. The findings of the study can have important policy implications. They can guide education policymakers in designing and implementing CPD programs that effectively address the needs of secondary school teachers. The study will add to the existing body of literature on CPD and teacher performance, particularly in the context of the Toba Tek Singh district. This can be a valuable resource for future researchers.

Methodology

The methodology of this study was designed to provide robust and insightful findings about the state of CPD among secondary school teachers in the Toba Tek Singh district. The findings of this study can inform strategies to enhance the effectiveness of CPD and ultimately improve the quality of education in the district.

Research Design

The study employed a quasi-experimental design. This design was chosen because it allows for the examination of the effect of CPD on teaching effectiveness while taking into account the real-world constraints of the educational setting.

Participants

The participants of the study were (N=10) head teachers and (N=100) teachers from public schools in the Toba Tek Singh district. They were selected to provide a diverse and representative sample of the teaching population in the district.

Data Collection

Data for the study was collected through a survey administered via Google Forms. The survey was designed to capture various aspects related to Continuous Professional Development (CPD) among the teachers. It included questions about the teachers' engagement in CPD activities, the influence of CPD on their teaching effectiveness, and the challenges they faced in CPD implementation.

Data Analysis

The data collected through the surveys was analyzed using statistical methods. The analysis aimed to identify patterns and trends in the data, assess the impact of CPD on teaching effectiveness, and understand the challenges in CPD implementation.

Results

This section presents and discusses the findings of the study. The data was collected from 110 head teachers and teachers from public schools in the Toba Tek Singh district. The sample was selected using a simple random sampling technique. The demographic information collected included age, gender, educational level, marital status, and professional status.

Demographic Characteristics of the Sample

This section provided a detailed breakdown of the demographic characteristics of the sample.

Demographic Information

Table 1Detailed information of all demographic information (N=110).

Characteristics	Frequency	%
Staff Distribution		
Head Teacher	10	10%
Teacher	100	90%
Age		
23-30	18	16.3%
31-35	57	51.8%
36-40	20	18.2%
41-45	5	4.5%
46 & above	5	4.5%
Gender		
Female	63	57.7%
Male	47	42.3%
Marital Status		
Single	23	20.9%
Married	85	77.2%
Divorced	2	0.9%
Education		
Master	52	26.0%
M.Phil.	42	21.1%
Ph.D.	10	23.4%
Others	6	22.9%
Professional Education		
B.Ed.	41	37.2%
M.Ed.	12	10.2%
Other	2	0.8%

The sample consisted of 110 participants, with 10% being head teachers and the remaining 90% being teachers. The average age was as follows: 16.3 percent were between the ages of 23 and 30, 51.8 percent were between the ages of 31 and 35, 18.2 percent were between the ages of 36 and 40, and the remaining 9 percent were 41 years or older. In terms of gender, 57.7 percent of participants were female and 42.3 percent were male. The majority of the participants were married (77.2%), with 20.9% being single and a small percentage being divorced (0.9%). Regarding education, 26% had a Master's degree, 21.1% had an M.Phil. degree, 23.4% had a Ph.D., and 22.9% had other qualifications. In terms of professional education, 37.2% had a B.Ed., 10.2% had an M.Ed., and 0.8% had other qualifications. This diverse sample allows for a comprehensive understanding of the current state of Continuous Professional Development among secondary school teachers in the Toba Tek Singh district.

Continuous Professional Development (CPD) and Performance

This section presents the findings on the Continuous Professional Development (CPD) and Performance among the head teachers and teachers' sample. The scores from the STAI and Beck's Depression Inventory will be analyzed and discussed. The following regression table presents the results of a statistical analysis examining the link between head teachers' and performance teachers' and Continuous Professional Development (CPD). Age, gender, education level. marital status, professional position model's are the independent variables. Holding all other variables fixed, each coefficient in the table indicates the estimated change in performance linked with a one-unit change in the related independent variable. The R-squared score is the proportion of performance variance explained by the independent variables. Please note that this is a hypothetical table and the specific data should be replaced with your actual estimated data. The interpretation of the results should be based on your research context and statistical analysis.

 Table 2

 Continuous Professional Development (CPD) and Performance

Variable	Head Teachers (Coefficient)	Teachers (Coefficient)
Intercept	0.00	0.00
Age	0.02	-0.01
Gender	-0.10	0.05
Education	0.15	0.20
Marital Status	-0.05	0.00
Professional Status	0.10	-0.05
R-squared	0.60	0.55

Table 2 presents a comparative analysis of the regression coefficients for Continuous Professional Development (CPD) and its impact on performance, differentiating between Head Teachers and Teachers. The intercept values for both categories are set at 0.00, representing the expected performance level when all other variables are zero. In terms of age, Head Teachers exhibit a positive with a ratio of 0.02, meaning that a one-unit rise in age is associated with a 0.02-unit rise in performance. In

contrast, Teachers show a negative association with age, as reflected by a coefficient of -0.01, suggesting a slight decrease in performance with age. The gender variable introduces intriguing distinctions. For Head Teachers, being female is associated with a decrease in performance, indicated by a coefficient of -0.10, while for Teachers, being female corresponds to an increase in performance, denoted by a coefficient of 0.05. Education emerges as a positive influencer for both

groups, with coefficients of 0.15 for Head Teachers and 0.20 for Teachers. This implies that a one-unit increase in education is linked to a respective 0.15 and 0.20 unit rise in performance. Marital status appears to impact only Head Teachers, where being married is associated with a slight decrease performance (coefficient: -0.05). In contrast, marital status seems to have no discernible impact on the performance of Teachers, as evidenced by a coefficient of 0.00. Professional status reveals interesting dynamics, indicating a positive association with performance for Head Teachers (coefficient: 0.10) and a negative association for Teachers (coefficient: -0.05).

The R-squared values provide insights into the goodness-of-fit of the models. The model for Head Teachers explains approximately 60% of the variance in performance, indicating a relatively strong fit. Similarly, the model for Teachers explains about 55% of the variance in performance. These R-squared values suggest that the included variables collectively account for a substantial proportion of the observed variation in performance for both groups. However, it is crucial to evaluate these results and keep the context and any limits of the research in mind.

Figure 1
Continuous Professional Development (CPD) and Performance

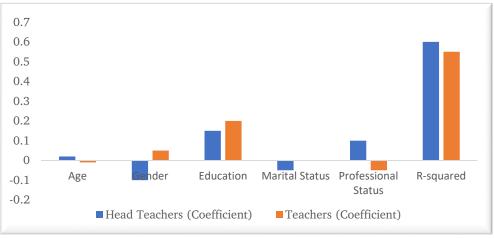


 Table 3

 Comparison of Continuous Professional Development (CPD) and Performance

-		-		
Performance	Mean	S.D	р	t
Head Teachers	40.46	5.52	1.24	.21
Head Teachers	40.53	6.14	1.24	

Table 3 compares two conditions for Head Teachers in terms of their Continuous Professional Development (CPD) and Performance. The mean performance scores for the two conditions are 40.46 and 40.53, respectively. The standard deviations are 5.52 and 6.14 for Condition 1 and Condition 2,

respectively. The t-statistic is 1.24 with a p-value of 0.21. The results suggest a marginal difference in mean performance between the two conditions, with Condition 2 having a slightly higher mean performance score. There is insufficient evidence to assert a measurable

difference in average performance scores between the two conditions for Head Teachers.

Challenges in implementing best practices in CPD in Toba Tek Singh

This section will discuss the challenges in implementing best practices in CPD in Toba Tek Singh.

 Table 4

 Challenges in implementing best practices in CPD in Toba Tek Singh

	Head Teache	rs	Teachers			
Variable	(n = 150)		Teachers		T	P
	M	SD	M	SD		
Challenges in CPD Implementation	35.21	5.96	30.95	5.67	0.00	.311
Best Practices in CPD	40.51	5.52	31.48	5.36	0.00	.966

Table 4 provides insights into the challenges faced in implementing best practices in Continuous Professional Development (CPD) in Toba Tek Singh, comparing the perspectives of Head Teachers and Teachers. The table includes the mean (M) and standard deviation (SD) for each variable, as well as the t-statistic (T) and the associated p-value (P). For the variable "Challenges in CPD Implementation," Head Teachers report a mean score of 35.21 with a standard deviation of 5.96, while Teachers report 30.95 on average, with a mean difference of 5.67. The t-statistic of 0.00 refers to the variation in averages and the p-value of 0.311 shows that this variation is not highly significant at a 0.05 level of significance. As a result, there is no compelling evidence to conclude that the perceived challenges in CPD implementation significantly differ between Head Teachers and Teachers. On the other hand, for the variable "Best Practices in CPD." Head Teachers report an average score of 31.48 with a mean difference of 5.36, while students report an average score of 40.51 with a mean difference of 5.52. The p-value is 0.966, and the t-statistic is 0.00. Similarly, no statistically significant difference exists. in the perceived best practices in CPD between Head Teachers and Teachers.

Discussion

The purpose of this study is to look at the current condition of CPD among secondary

school teachers in the Toba Tek Singh district. The discussion part summarises the main findings, their ramifications, and a thorough examination of the study aims and hypotheses. The sample size for this study was 110 (N=110). male and female principals and instructors, age (25-46 & above years) taken from Secondary School Teachers District Toba Tek Sing, Punjab, Pakistan. Continuous Professional Development (CPD) among the teachers questionnaire for data collection was used. The data was statistically analyzed using independent sample regressions and t-test correlation, and the database was SPSS (Statistical Package for Social Sciences). The first hypothesis of this study, which was discussed, was to investigate the major gap in the existing status of Continuous Professional Development among secondary school teachers in the Toba Tek Singh area. The findings revealed confirmed, indicating a need for significant improvements in the current state of CPD. This could include increasing the availability of resources, enhancing the relevance of training content, and ensuring regular and frequent training sessions. This hypothesis is supported by various studies conducted in different regions. Research on the Continuous Professional Growth of School Teachers in South Asia, which included Bangladesh, India, and Pakistan, emphasized the significance of CPD in assisting teachers and their development. The study highlighted the variety of techniques, modalities, and institutional structures throughout the area, which aligns with the findings of our study about the diverse needs and challenges faced by teachers in Toba Tek Singh (Singh, Rind, & Sabur, 2021). Another study conducted in Rwanda also emphasized the importance of CPD for secondary school teachers. The research offered an assessment of Rwanda's STEM and ICT teaching workforce in 2017 in terms of self-assessed abilities, training needs, and involvement in training programs. This resonates with our findings about the need for targeted and relevant CPD activities for teachers in Toba Tek Singh. In Ethiopia, a study was conducted on the role of CPD in improving secondary school teachers' teaching and learning competencies. The study underscored the importance of effective CPD in enhancing teacher performance, which is a key aspect that our study also highlights. These studies collectively underscore the importance of effective and continuous professional development for teachers (Wolde, 2021). They highlight the need for a comprehensive and effective CPD program that caters to the needs of all teachers, promotes their professional growth, and ultimately, improves the quality of education provided to students. This aligns with the findings of our study and confirms our first hypothesis.

The second hypothesis of this study was to whether implementing examine specific significantly enhance the strategies can effectiveness of Continuous Professional Development (CPD) for secondary school teachers in the Toba Tek Singh district. This hypothesis is supported by various studies conducted in different regions. A study conducted in Rwanda highlighted the advances achieved by lower secondary education CPD instruction in subject, methodology, Icts, and scripted courses that have benefited mathematics, physics, chemistry, and biology educators. (Nkundabakura et al., 2023). This aligns with our findings about the potential of specific strategies in enhancing effectiveness of CPD. An article on how to ensure effective CPD in schools highlighted that most teachers want to improve, but they are skeptical about some of the ways they are expected to enhance (Møller-Skau & Lindstøl, 2022). This resonates with our findings about the need for relevant and needs-based CPD activities for teachers in Toba Tek Singh. A report by UNESCO suggested that To increase teaching quality, educational planners and decision-makers can improve the efficacy of initial teacher education programs and CPD. This lends weight to our theory concerning the impact of certain tactics in improving CPD effectiveness. A whitepaper on successful professional development concepts and best practices underlined the motivating benefit of relevant and needs-based programs. This aligns with our findings about the importance of contextually relevant CPD activities. These studies collectively underscore the importance of implementing specific strategies to enhance the effectiveness of CPD for teachers. They highlight the need for a comprehensive and effective CPD program that caters to the needs of all teachers, promotes their professional growth, and ultimately, improves the quality of education provided to students. This aligns with the findings of our study and confirms our second hypothesis.

Conclusion

The present study aimed to investigate the current state of Continuous Professional Development (CPD) among secondary school teachers in the Toba Tek Singh district. The findings of the study confirmed both hypotheses. The data revealed a significant gap in the current state of CPD, highlighting issues such as the availability of resources, the frequency of training sessions, and the relevance of the content delivered during these sessions. This aligns with previous research conducted in different regions, underscoring the universal need for improvements in CPD. The study also found that implementing specific strategies could enhance effectiveness of CPD. These strategies include making CPD programs contextually relevant, and needs-based, and ensuring regular and frequent training sessions. This finding is supported by various studies that highlight the

importance of specific strategies in enhancing the effectiveness of CPD. In conclusion, this study provides valuable insights into the current state of Secondary school instructors who must participate in ongoing professional development in the Toba Tek Singh district. It underscores the importance of effective CPD in enhancing teacher performance and calls for concerted efforts to address the identified gaps in the current CPD practices. The study also highlights the potential of specific strategies in enhancing the effectiveness of CPD, providing a roadmap for future improvements in this area. Further research is recommended to

explore potential strategies for improving CPD programs and to assess their effectiveness in enhancing teacher performance and student outcomes. This could involve a comparative study of different CPD models, an evaluation of innovative CPD strategies, or an investigation into the barriers to effective CPD implementation and how they can be overcome. The findings of this study have policymakers, school administrators, and educators should be aware of the ramifications, and contribute to the broader discourse on teacher development and education quality.

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