

The Impact of Continuous Professional Development (CPD) Program on Teachers' Professional Development in Pakistan

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The study was conducted, in the year 2012, to evaluate the impact of Continuous Professional Development (CPD) Program on Teachers' Professional Development in Pakistan. First Phase of CPD was launched by the Directorate of Staff Development (DSD) Lahore in 2007 for 12 districts of Punjab, Pakistan. The objectives of the study were to evaluate, respondents' opinions on teachers' professional development as a result of CPD; the impact of CPD on the districts; and its impact on urban and rural localities. The population of the study was comprised 3158 Govt. boy's primary schools of the districts, Faisalabad, Okara, Sargodha, and Sheikhpura. The sample was taken with the help of multistage cluster random sampling technique. Firstly 344 schools were selected randomly and secondly 2752 respondents were selected randomly in the form of clusters from those schools. Three different questionnaires were used for the collection of data from three different types of respondents. Data were analyzed by using Chi-Square statistic. Findings of the study revealed that more than ninety percent respondents were agreed or strongly agreed in the 'improvement in the teachers' performance as a result of CPD, the district Sheikhpura was at the highest position while district Faisalabad was at the lowest, and urban locality was on a higher position than rural locality regarding the impact of CPD.

Key words: Continuous professional development (CPD) program, professional development, impact

Teacher training is crucial to do a whole range of different jobs: to enable teachers to develop the potential of their pupils; to serve as role models; to help transform education and through it society; to encourage self-confidence and creativeness. Ainscow (2004) illustrated that just as successful classrooms offer the conditions that support and promote all children's learning, so a successful move toward teacher development must address contextual matters in order to create the conditions that help out the learning of adults. In-service education grew in importance relative to pre-service training of new teachers. In-service education, was expected, would transmit the findings of research on effective teaching and effective schools and respond to demands for developing student achievement, (Dearden, n.d).

In-service education is a noteworthy requisite for the development of teachers' skill in teaching. All teachers are expected to broaden their educational stance and to deepen their professional interests. But many teaching personnel believe that since they have fulfilled their pre-service education and training, they are in a position to teach for all time. It is an invalid viewpoint. Teaching personnel must studying highly developed educational literature and practiced new ideas contained in it. In this way they can

inspire their students. Training workshops must be planned to widen their understanding of educational dilemmas. It is a moral responsibility of a teacher to develop his/her professional competence ceaselessly. In-service program must be commenced during the summer vacation each year to refresh their professional education and enable them to accomplish their functions and duties as teachers sufficiently. A teacher must acquire a vast variety of general educational subject specialty and professional proficiency (Qureshi, 2008). Thus, training is unavoidable for the teachers, especially primary school teachers, because they are entitled with the premier duty to educate and build up the character of humanity.

Objectives of the Study

The objectives of the study are as follows:

1. To evaluate respondents' views about the impact of CPD on teachers' professional competencies i.e. lesson planning & preparation, classroom management, monitoring & evaluation, and pedagogical skills.
2. To analyze the effect of this program on the urban and rural localities.
3. To evaluate the impact on the four districts.

Method

The study was descriptive in its nature and conducted during January & February 2012. The population for the

present study was comprised a total number of 3158 Govt. boy's primary schools of the districts, Faisalabad, Okara, Sargodha, and Sheikhpura of Punjab, Pakistan. Sample was taken with the help of multistage cluster random sampling technique due to practical reasons because population had a nested structure. Firstly 344 schools were selected randomly according to the sample size table, (Krejcie & Morgan, 1970). Secondly a cluster comprising eight respondents (one head teacher, two peer teachers, and five students of the 5th grade) was randomly selected from each and every school for the collection of data. The total number of partakers/respondents (344 heads, 688 peer teachers, and 1720 students) in the study was 2752. Targeted teachers were the teachers who had been engaged for teaching the 5th grade students. Seventy percent (70%) of the sample was collected from rural areas and thirty percent (30%) from urban areas because of the population division (rural population 70% and urban population 30%) within the Punjab, Pakistan.

Three different questionnaires were developed by the researcher after a series of dialogues and discussions with the peers, master trainers of CPD program, subject specialists and supervisor. The areas of the three questionnaires were (1) Lesson Planning and Preparation, (2) Classroom Management, (3) Monitoring and Evaluation, (4) Pedagogical Skills. The instruments were five point Likert scales, the mostly frequently used rating scales for surveys often employed to assess the degree of intensity from best to worst of opinions, ranging from "Strongly Agree" to "Strongly Disagree" in which the participants were requested to mark the apposite box. The responses were coded as, Strongly Agree = 5, Agree = 4, Undecided = 3, Disagree = 2, Strongly Disagree = 1. Pilot study was performed to recognize the first round outcomes and to find out the effectiveness and suitability of the questionnaires to the content or subject matter. Reliability was measured through Cronbach's Alpha and it was 0.994, 0.990. & 0.967 for head teachers, peer teachers and students' questionnaires respectively. On the basis of relevant data and judgments of professionals a few items were excluded from the questionnaires and rest of the items were improved.

The researcher and his personal messengers distributed 2752 questionnaires (344 to head teachers, 688 to peer teachers, and 1720 to students) into 344 Govt. boys' primary schools (Faisalabad=108, Sargodha=102, Sheikhpura=68 and Okara=66 schools) with the ratio of 70:30 for rural and urban areas respectively. The data were analyzed by using Chi Square statistic to find out the group's opinion district and locality wise with respect to the teachers' performance. The analysis and interpretations were incorporated in tables which presented the data in detail accompanied by subsections of discussion which revealed significant features of the data.

Results and Discussion

Data concerning participants' opinions about the improvement, as a result of CPD program, in some professional aspects, such as lesson planning and preparation, classroom management, monitoring and evaluation, and pedagogical skills, of teachers were analyzed. The conclusions were drawn and recommendations were prepared on the basis of statistical analysis.

Table 1 shows that group, district & locality are highly significant $p < .01$ statistically. It also depicts that 53.8% head teachers, 73.8% peer teachers, and 61.3% students were strongly agreed while 36.3% head teachers, 22.7% peer teachers, and 29.5% students were agreed about the improvement in teachers' skill of lesson planning & preparation. It further illustrates that 68.0%, 62.4%, 61.9%, and 63.1% respondents of Sheikhpura, Sargodha, Faisalabad, and Okara respectively were strongly agreed while 24.8%, 29.4%, 29.3%, and 30.5% respondents respectively were also agreed. It depicts that 70.3% , and 60.6% respondents of both the localities urban and rural respectively were strongly agreed while 25.5%, and 30.0% respondents respectively were agreed about the improvement in the teachers' skill of lesson planning & preparation. On the other hand collectively less than ten percent respondents were undecided, disagreed and strongly disagreed about the improvement in the teachers' skill of lesson planning & preparation.

Table 1
Lesson Planning & Preparation

		SA	A	UN	D	SD	Total		
Group**	Heads	Count	185	125	30	4	0	344	
		%	53.8%	36.3%	8.7%	1.2%	.0%	100.0%	
	Peers	Count	508	156	24	0	0	688	
		%	73.8%	22.7%	3.5%	.0%	.0%	100.0%	
	Students	Count	1054	508	89	43	26	1720	
		%	61.3%	29.5%	5.2%	2.5%	1.5%	100.0%	
Total		Count	1747	789	143	47	26	2752	
		%	63.5 %	28.7 %	5.2 %	1.7 %	.9 %	100.0 %	
District**	Sheikhpura	Count	370	135	23	7	9	544	
		%	68.0%	24.8%	4.2%	1.3%	1.7%	100.0%	
	Sargodha	Count	509	240	53	10	4	816	
		%	62.4%	29.4%	6.5%	1.2%	.5%	100.0%	
	Faisalabad	Count	535	253	55	12	9	864	
		%	61.9%	29.3%	6.4%	1.4%	1.0%	100.0%	
Okara	Count	333	161	12	18	4	528		
	%	63.1%	30.5%	2.3%	3.4%	.8%	100.0%		
Total		Count	1747	789	143	47	26	2752	
		%	63.5 %	28.7 %	5.2 %	1.7 %	.9 %	100.0 %	
Locality**	Urban	Count	568	206	25	4	5	808	
		%	70.3%	25.5%	3.1%	.5%	.6%	100.0%	
	Rural	Count	1179	583	118	43	21	1944	
		%	60.6%	30.0%	6.1%	2.2%	1.1%	100.0%	
	Total		Count	1747	789	143	47	26	2752
			%	63.5 %	28.7 %	5.2 %	1.7 %	.9 %	100.0 %

Note. ^{NS} $P > 0.05$, * $p < .05$, ** $p < .01$

Table 2 illustrates that group & locality are highly significant $p < .01$ while district is significant $p < .05$ statistically. It depicts that 73.0% head teachers, 55.7% peer teachers, and 62.4% students were strongly agreed while 24.1% head teachers, 37.6% peer teachers, and 29.8% students were agreed about the improvement in the

teachers' skill of classroom management. It also shows that 66.4%, 61.8%, 60.2%, and 61.2% respondents of Sheikhpura, Sargodha, Faisalabad, and Okara respectively were strongly agreed while 29.0%, 31.6%, 30.1%, and 33.7% respondents respectively were agreed about the improvement in the teachers' skill of classroom management. It further shows that 68.7% , and 59.3%

respondents of both the localities urban and rural respectively were strongly agreed while 27.1%, and 32.7% respondents respectively were agreed about the improvement in the teachers' skill of classroom management.

Table 2
Classroom Management

		SA	A	UN	D	SD	Total	
Group**	Heads	Count	251	83	8	2	0	344
		%	73.0%	24.1%	2.3%	.6%	.0%	100.0%
	Peers	Count	383	259	34	10	2	688
		%	55.7%	37.6%	4.9%	1.5%	.3%	100.0%
	Students	Count	1074	512	119	15	0	1720
%		62.4%	29.8%	6.9%	.9%	.0%	100.0%	
Total	Count	1708	854	161	27	2	2752	
	%	62.1 %	31.0 %	5.9 %	1.0 %	.1 %	100.0 %	
District*	Sheikhpura	Count	361	158	21	4	0	544
		%	66.4%	29.0%	3.9%	.7%	.0%	100.0%
	Sargodha	Count	504	258	42	11	1	816
		%	61.8%	31.6%	5.1%	1.3%	.1%	100.0%
	Faisalabad	Count	520	260	74	9	1	864
		%	60.2%	30.1%	8.6%	1.0%	.1%	100.0%
Okara	Count	323	178	24	3	0	528	
	%	61.2%	33.7%	4.5%	.6%	.0%	100.0%	
Total	Count	1708	854	161	27	2	2752	
	%	62.1 %	31.0 %	5.9 %	1.0 %	.1 %	100.0 %	
Locality**	Urban	Count	555	219	29	4	1	808
		%	68.7%	27.1%	3.6%	.5%	.1%	100.0%
	Rural	Count	1153	635	132	23	1	1944
		%	59.3%	32.7%	6.8%	1.2%	.1%	100.0%
Total	Count	1708	854	161	27	2	2752	
	%	62.1 %	31.0 %	5.9 %	1.0 %	.1 %	100.0 %	

Note. ^{NS}P>0.05, *p < .05, **p < .01

Table 3 depicts that group, district & locality are highly significant p < .01 statistically. It describes that 73.0% head teachers, 69.2% peer teachers, and 77.3% students were strongly agreed while 22.4% head teachers, 25.7% peer teachers, and 18.2% students were agreed about the improvement in the teachers' skill of monitoring & evaluation. It explains that 76.7%, 74.0%, 72.8%, and 77.1% respondents of Sheikhpura, Sargodha, Faisalabad, and Okara respectively were strongly agreed while 20.8%, 20.2%,

21.2%, and 20.1% respondents respectively were agreed about the improvement in the teachers' skill of monitoring & evaluation. It shows that 81.8% , and 71.8% respondents of both the localities urban and rural respectively were strongly agreed while 16.2%, and 22.4% respondents respectively were agreed about the improvement in the teachers' skill of monitoring & evaluation.

Table 3
Monitoring & Evaluation

		SA	A	UN	D	Total	
Group**	Heads	Count	251	77	15	1	344
		%	73.0%	22.4%	4.4%	.3%	100.0%
	Peers	Count	476	177	32	3	688
		%	69.2%	25.7%	4.7%	.4%	100.0%
Students	Count	1330	313	71	6	1720	
	%	77.3%	18.2%	4.1%	.3%	100.0%	
Total	Count	2057	567	118	10	2752	
	%	74.7 %	20.6 %	4.3 %	.4 %	100.0 %	

District**	Sheikhupura	Count	417	113	13	1	544
		%	76.7%	20.8%	2.4%	.2%	100.0%
	Sargodha	Count	604	165	47	0	816
		%	74.0%	20.2%	5.8%	.0%	100.0%
	Faisalabad	Count	629	183	48	4	864
	%	72.8%	21.2%	5.6%	.5%	100.0%	
	Okara	Count	407	106	10	5	528
		%	77.1%	20.1%	1.9%	.9%	100.0%
	Total	Count	2057	567	118	10	2752
		%	74.7 %	20.6 %	4.3 %	.4 %	100.0 %
Locality**	Urban	Count	661	131	15	1	808
		%	81.8%	16.2%	1.9%	.1%	100.0%
	Rural	Count	1396	436	103	9	1944
	%	71.8%	22.4%	5.3%	.5%	100.0%	
	Total	Count	2057	567	118	10	2752
		%	74.7 %	20.6 %	4.3 %	.4 %	100.0 %

Note. ^{NS}P>0.05, *p < .05, **p < .01

Table 4 demonstrates that group, district & locality are highly significant p < .01 statistically. It describes that 72.4% head teachers, 67.9% peer teachers, and 74.1% students were strongly agreed while 24.1% head teachers, 27.5% peer teachers, and 21.5% students were agreed about the improvement in the teachers' pedagogical skills. It elucidates that 76.8%, 71.4%, 69.3%, and 74.1% respondents of Sheikhupura, Sargodha, Faisalabad, and Okara respectively

were strongly agreed while 19.5%, 23.3%, 24.7%, and 25.0% respondents respectively were agreed about the improvement in the teachers' pedagogical skills. It clarifies that 77.8% , and 70.1% respondents of both the localities urban and rural respectively were strongly agreed while 20.2%, and 24.6% respondents respectively were agreed about the improvement in the teachers' pedagogical skills.

Table 4
Pedagogical Skills

		SA	A	UN	D	Total	
Group**	Heads	Count	249	83	12	0	344
		%	72.4%	24.1%	3.5%	.0%	100.0%
	Peers	Count	467	189	29	3	688
		%	67.9%	27.5%	4.2%	.4%	100.0%
	Students	Count	1275	369	76	0	1720
	%	74.1%	21.5%	4.4%	.0%	100.0%	
	Total	Count	1991	641	117	3	2752
		%	72.3 %	23.3 %	4.3 %	.1 %	100.0 %
District**	Sheikhupura	Count	418	106	19	1	544
		%	76.8%	19.5%	3.5%	.2%	100.0%
	Sargodha	Count	583	190	43	0	816
		%	71.4%	23.3%	5.3%	.0%	100.0%
	Faisalabad	Count	599	213	50	2	864
	%	69.3%	24.7%	5.8%	.2%	100.0%	
	Okara	Count	391	132	5	0	528
		%	74.1%	25.0%	.9%	.0%	100.0%
	Total	Count	1991	641	117	3	2752
		%	72.3 %	23.3 %	4.3 %	.1 %	100.0 %
Locality**	Urban	Count	629	163	15	1	808
		%	77.8%	20.2%	1.9%	.1%	100.0%
	Rural	Count	1362	478	102	2	1944
	%	70.1%	24.6%	5.2%	.1%	100.0%	
	Total	Count	1991	641	117	3	2752
		%	72.3 %	23.3 %	4.3 %	.1 %	100.0 %

Note. ^{NS}P>0.05, *p < .05, **p < .01

Table 5 reveals that district is significant p < .05, locality is highly significant p < .01 while group is non-significant statistically. It explains that 68.05% head teachers, 66.65% peer teachers, and 68.78% students were strongly agreed while 26.73% head teachers, 28.38% peer teachers, and 24.75% students were agreed about

the overall improvement in the teachers' performance. It exposes that 71.98%, 67.40%, 66.05%, and 68.88% respondents of Sheikhupura, Sargodha, Faisalabad, and Okara respectively were strongly agreed while 23.53%, 26.13%, 26.33%, and 27.33% respondents respectively were agreed about the overall improvement in the

teachers' performance. It clarifies that 74.65% , and 65.45% respondents of both the localities urban and rural respectively were strongly agreed while 22.25%, and

27.43% respondents respectively were agreed about the overall improvement in the teachers' performance.

Table5
Overall Improvement in Performance

		SA	A	UN	D	SD	Total	
Group ^{NS}	Heads	Count	234	92	16	2	0	344
		%	68.05%	26.73%	4.73%	0.53%	0.00%	100%
	Peers	Count	459	195	30	4	1	688
		%	66.65%	28.38%	4.33%	0.58%	0.08%	100%
	Students	Count	1183	426	89	16	7	1720
	%	68.78%	24.75%	5.15%	0.93%	0.38%	100%	
Total	Count	1876	713	135	22	7	2752	
	%	68.15%	25.90%	4.93%	0.80%	0.25%	100%	
District*	Sheikhupura	Count	392	128	19	3	2	544
		%	71.98%	23.53%	3.50%	0.60%	0.43%	100%
	Sargodha	Count	550	213	46	5	1	816
		%	67.40%	26.13%	5.68%	0.63%	0.15%	100%
	Faisalabad	Count	571	227	57	7	3	864
		%	66.05%	26.33%	6.60%	0.78%	0.28%	100%
	Okara	Count	364	144	13	7	1	528
		%	68.88%	27.33%	2.40%	1.23%	0.20%	100%
	Total	Count	1876	713	135	22	7	2752
		%	68.15%	25.90%	4.93%	0.80%	0.25%	100%
Locality**	Urban	Count	603	180	21	3	2	808
		%	74.65%	22.25%	2.63%	0.30%	0.18%	100%
	Rural	Count	1273	533	114	19	6	1944
		%	65.45%	27.43%	5.85%	1.00%	0.30%	100%
	Total	Count	1876	713	135	22	7	2752
	%	68.15%	25.90%	4.93%	0.80%	0.25%	100%	

Note. ^{NS}p>0.05, *p < .05, **p < .01

In the light of results of the study it is evident that teachers' skill of lesson planning and preparation was improved highly significantly $p < .01$ because more than ninety two percent respondents' opinion were in its favour. These results are matched with Ranade (2006) who studied the strengthening lesson-planning skill of prospective science teachers through computer-assisted training program based on a multiple intelligences approach and found evidence of very positive results. These results are also in line with Dikici and Yavuzer (2006) who studied the effects of cooperative learning on the abilities of pre-service art teacher candidates to lesson planning and found a significant difference between the post-test points in favour of the experimental group ($P < .05$).

The findings of the present study also showed improvement in the teachers' skill of classroom management and these results are in accordance with Piwovar, Thiel, and Ophardt (2013) who evaluated that, the efficacy of a training program for in-service secondary school teachers in classroom management, all the partakers reported better knowledge of classroom management after training, and Varank (2013) who studied that , the effects of teachers' educational technology skills on their classroom management skills, the teachers with high acuity of educational technology self-skills have high acuity of

classroom management skills. The findings of the study of Sari (2007) also support the results of the present study, who examined the effect of an INSET program and found that the teachers in the experimental group were remarkably more positive especially teachers' attitudes altered in relation to classroom management.

The findings of the current study further describes that teachers' skill of monitoring & evaluation was improved and these are similar to Ahmad and Al-Khalili (2013) who analyzed the impact of using reflective teaching approach on developing teaching skills of primary science student teachers and discovered that approach was helpful in developing teaching skills like evaluation etc.

This study further reveals improvement in teachers' pedagogical skills and these results are in tune with Bray and Howard (1980) who analyzed that the training created noteworthy changes in the trained Teaching Assistants' (TAs) teaching approach, Morais, Neves, and Afonso (2005) who examined the relationship between models of teacher training and models of pedagogic practice executed in the classroom and the findings of the study imply that the teacher training executed was helpful to the teachers' professional growth and their skill to direct students towards an advanced scientific improvement, Smith and Corkery

(2012) who studied that the participants', secondary school pre-service teachers, sense of teaching value and effectiveness improved after the completion of two practica, Hascher, Cocard, and Moser(2004) who described that, the effect of a study on learning processes during three types of practicum upon all student teachers at the University of Bern, the student teachers' general teaching abilities improved and their manners toward students became more open, Farooq and Shahzadi (2006) who examined the effects of teachers' professional education on students' achievement in mathematics and found that the students taught by the trained teachers showed better results as compared to the untrained teachers' students, and Postareff, Lindblom-Ylänne, and Nevgi (2007) who analyzed a follow-up study of the effect of pedagogical training on teaching in higher education and discovered that there were more positive changes in the measured scales among teachers who had acquired more credits of pedagogical courses.

These results are also in line with Masood (1996), Mahmood (1998), Khurshid (1998), Erickson & Brandes (2005), Hansen-Thomas, Casey, and Grosso (2012), Sass and Feng (2012), Goebel, Umoja, and DeHaan (2009), Gibbs and Coffey (2004), Murphy, Neil, and Beggs (2008), Atay (2008), and Draper, White, O'Shaughnessy, Flynt, and Jones(2001) who reported that teacher training programs improve teachers' professional development and makes them more mature than earlier.

The findings on the whole disclosed that head teachers, peer teachers and students were all positively satisfied on equal level. The differences among districts and localities perhaps due to better management in some regions because of their small sizes by population and area, better facilities of the CPD training in urban areas like easy excess to the training centres, availability of better teaching staff, and better quality of monitoring etc.

Conclusion and Recommendations

From the major findings of the study it is concluded that though there were no significant differences among the opinions of head teachers, peer teachers and students yet their great majority thought highly positively about the improvement in the teachers' performance as a result of CPD program. There were significant differences among the districts yet the improvement in their teachers' performance was very optimistic. The district Sheikhpura was on the highest position while district Faisalabad was on the lowest footing with respect to their teachers' performance improvement. Though impact of CPD program was greater upon the teachers of urban areas than the teachers of rural areas yet their teachers' performance improvement was highly positive. No doubt, CPD program is extremely helpful in increasing teachers' performance at primary school level in Pakistan.

The following recommendations are made on the basis of the conclusions:

- i. CPD program should be monitored strictly, especially in the rural areas in order to improve and equalize rural teachers' efficiency with that of urban teachers.
- ii. It should be made compulsory for the teachers of primary to higher secondary schools without any discrimination of gender.
- iii. This program must be launched in other provinces of Pakistan.
- iv. Similar experiments should be performed to evaluate the impact of this program about the teachers' (male & female) professional development within the remaining districts of the Punjab, Pakistan.

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