



The Relationship Between in Service Training and Classroom Practices of Teachers at Primary School Level

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This current research was aimed to examine the role of professional development in improving classroom practices of teachers to improve teaching learning process. The objectives of the study revolve around the perceived value teachers give to professional development programs and implementations strategies in the classroom after training. Using a cluster sampling technique, 237 teachers participated in the study. A self-developed survey instrument (45 items) and an observation checklist was used to collect data from respondents. Thirty observations were carried out in order to explore implementation strategies of the teachers after getting training. The results affirmed that professional development had a positive impact on the transformation of teachers' pedagogical practices. The results of the observations also indicated a positive relationship between perceptions and practices of teachers. The results lead towards the recommendations of arranging more professional development opportunities for teachers in the public and private sector.

Keywords: *Teachers Training, Teachers' Development, Teachers' Professional Development, Teachers' Education, Professional Growth*

Introduction

Professional development of teachers is a globally accepted process that has been positioned higher into policies for quality education. It refers to the opportunities for continuous learning available for teachers and other education personnel through their schools. It is ongoing process for improving the effectiveness of the teaching learning process (Oyedele & Chikwature, 2016). The process of training is a series of steps taken for acquisition of didactic knowledge



and skills (Almeida, 2016). It benefits the teachers in flourishing their cognitive knowledge as well pedagogical skills. These improvements in teaching methodologies training help the teachers choose better teaching strategies that in turn help in the improvement of learning among students. Teacher self-efficacy affects a teacher's perceptions, judgments, and actions or behaviours in the classroom. Teachers with training and previous experience display a higher level of confidence in their teaching ability, or display a high level of teacher self-efficacy (Bradshaw & Mundia, 2006; Subban & Shannen 2006). These trainings help the teachers to turn themselves from teachers to mentors thus turning students into lifelong learners by improving their problem-solving skills (Lopez & Hernandez, 2015). This study is an effort to identify the effectiveness of in-service training as perceived by teachers and then exploring implementation of these strategies in the classroom.

The current study is unique in terms of methodology as the current study used comparatively less researched aspects i.e. along with classroom strategies enhancement, professional development towards personal and professional grooming of teachers and mediator factor which effect on professional development and its successful implementation in the classroom by the teachers. The study will determine the significance of teaching strategies and their classroom implementation as professional development intends to transform classroom strategies of teachers to enhance the students learning. The results of current study will benefit the designers of teachers training programs for effective training program that leads towards implementation in classroom.

Professional training is designed to broaden the understanding of educational dilemmas (Qureshi, 2008). It not only equips the teachers with new skills but cultivates new insight into pedagogy and to discover new or advanced understandings of content and resources. Professional development is arranged in education systems to bring change in areas they consider necessary to improve or in which new policies have been launched by the authorities (Marwa, 2012). Professional development is a strategy that provides one-to-one learning opportunities for teachers and focuses on improving teacher practice (Louks-Horsley et al, 2001). The basic purpose of effective professional development is to have a positive behaviour impact on teachers which ultimately leads to a deeper impact on students' learning and achievement. The challenge for teachers' professional development is to deepen their understanding of the learning process and develop instructional approaches which support teaching and learning (Walker, 2010).

During professional development programs it is impossible to give training of every situation a teacher may come across in the class. However, professional development is necessary for teachers to polish their skills and practices as these are based on the needs of the students and the best research practices (Lee, 2013). Professional developmental courses and trainings introduce remedies to overcome the deficiencies and enhance teaching competencies of teachers. A change in the teacher leads to change in the students, change in society ultimately



changes life and the world. For this reason professional development is inevitable for teachers (Hassan, 2013).

Research studies ratify that students have a great impact on teacher and teaching quality in their success. The greater number of years they work with an effective teacher, the higher their achievements (Kaplan & Owings, 2004). Effective professional development is well organised and systematic while meeting the needs of participants. It requires constant review of data and variation in teacher self-efficacy and students learning which leads to the provision of continuous professional training programs (Casale, 2011).

Based on the importance of professional development of teachers in effective teaching and improved learning process, it is necessary to identify the efficiency of these programs in the first place. Though there are few professional development programs available under the directorate of staff development at state level, however, their effectiveness is not well known. On the other hand, many schools are offering in-service teacher training programs for their teachers at different levels, but again, effectiveness of these programs is not published on a larger scale. The current study is based on examining the effectiveness of in-service professional development programs of a semi-official chain of schools. The results will be helpful for policy makers and teacher trainers for addition of strategies for sustaining the impact of training.

Conceptual Framework

The professional development or teacher training will serve as the independent variable of the study which enhances not only content related to the subjects and instructional methodologies of teachers but also has great impact on teachers' personal grooming as professional development provides opportunities to enhance their exposures, build up confidence, flourish their personality traits etc. It also polishes teachers' professional skills as there are a number of other things to do in an institution along with teaching students in the classroom i.e. time management, classroom management, technological integration, collaboration, communication and interaction with colleague and parents, behavioural management of students, accomplishment of different tasks along with instructing in the classroom.

Classroom practices will serve as dependent variable of the study, the relationship of the professional development of teachers to the dependent variable will be identified to see its impact and level of implementation in the classrooms by the teachers. The following figure presents the relationship between the variables of the study:

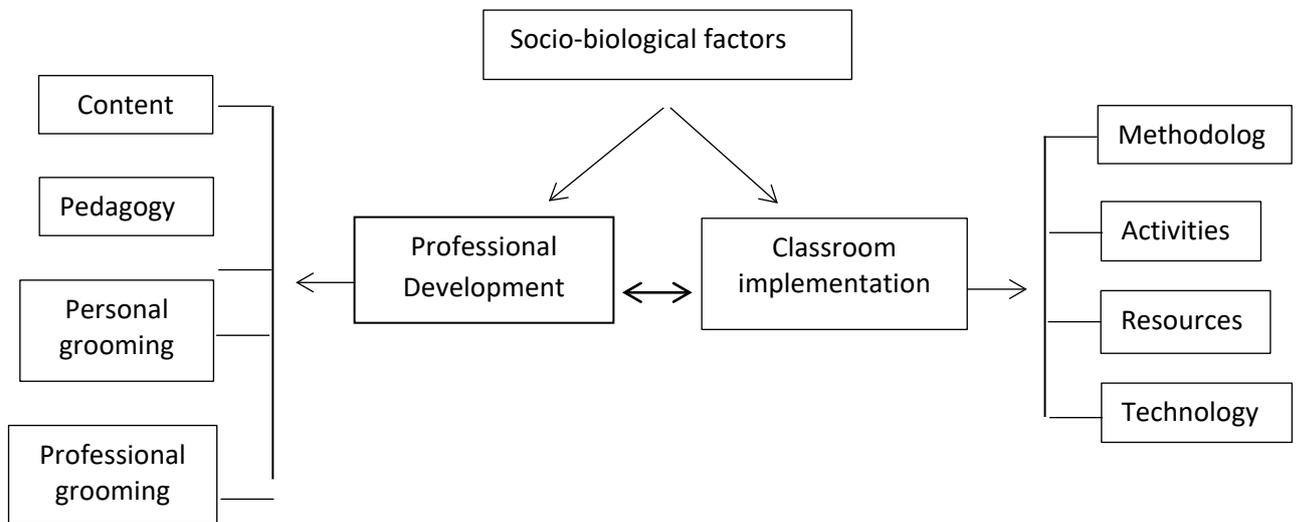


Figure 1.1: Conceptual framework of the study

Objectives of the study

Based on aforementioned aim, the objectives of the study are as follows:

1. To explore the perceived value given by the teachers to in-service teacher training programs
2. To assess the practices of teachers during the teaching learning process after getting training
3. To explore the relationship between perceptions and practices of teachers after training
4. To identify the influence of demographic factors on teachers' professional development and its classroom implementation

Research questions

Based on the objectives of the study, the following research questions were devised:

- 1.1 What is perceived level of content knowledge, pedagogical knowledge, professional development and personal grooming through training?
- 2.1 What is the frequency of strategies adopted by teachers after getting through trainings?
- 3.1 Is there any relationship between professional development and teachers' classroom strategies?
- 4.1 Is there any role of demographic variables including age, experience of teaching, qualification, and duration of training on perceptions or practices of teachers after getting training?



Methodology

The study was exploratory in nature and a survey research design was used to collect data from respondents. The main limitations of the study are two; first it is based on a school chain that provides continuous professional development opportunities to their teachers every summer, thus the ratio of trained teachers is high; secondly, the study was limited to the sixteen schools present in Lahore due to time and resource constraints.

Population and sample of the study

From above mentioned sixteen schools, three schools were providing education to primary level, thus the teachers from these schools were selected for the purpose of data collection. The total number of respondents was 237 teachers. Observations of classes of teachers were carried out after getting permission from authorities and thus was limited to thirty only.

Instrument of the study

The instruments of the study were self-developed based on literature review. The first instrument was a questionnaire on perceived value teachers give to professional training programs, this was also accompanied with demographic information. It was comprised of 45 statements divided into three factors. The second instrument was an observation checklist, this was composed of two factors: professional and personal skills.

Pilot testing of the instrument

The instrument was first validated through expert opinion from five experts in the field of education. After the establishment of content validity of the instrument, it was administered to 100 teachers from the same school chain. The construct validity was established by running confirmatory factors analysis, while the reliability was established by calculating the Cronbach alpha value (.81).

Results

The following section of the study will deal with the statistical results of the study. The data was analysed by using SPSS. Multiple tests ranging from descriptive statistics to inferential statistics were used to explore the numerical support for the findings of the study. In the following section the results are discussed as per the objectives of the study.

The first objective of the study was to explore the perceived value of professional development by the teachers. The related research questions were what is the level of content and pedagogical knowledge through training? and what is perceived level of professional and

personal grooming of teachers through training? Descriptive statistics in which mean and standard deviation of all factors and scale was identified.

Objective 1

Table 1.1 shows the mean and standard deviation of factors constituting the questionnaire i.e. personal factors, professional factors and environmental factors of professional development of teachers. For personal factors (M=45.1216, S.D=5.94458), professional factors (M=75.6951, S.D=8.58011), environmental factor (M=62.6502, S.D=6.9867) and all factors (M=180.4414, S.D 18.54903).

Table 1.1

<i>Factors</i>	<i>N</i>	<i>Mean</i>	<i>Std. Deviation</i>	<i>MPI</i>
Personal impacts	222	45.1216	5.94458	4.1019
Professional impacts	223	75.6951	8.58011	4.2052
Environmental impacts	223	62.6502	6.9867	3.156
All Factors	222	180.4414	18.54903	4.0098

Descriptive Statistics Results on Professional Development impact Teachers of questionnaire

MPI= (Mean Per Item)

From the results, it is clearly evident that professional development plays a positive role in selected factors for teachers. Teachers assume that professional development is very helpful in the development of teachers and their classroom implementations as well. Teachers assume that professional development is very helpful to flourish and enhance the personality traits of teachers (N=222, MPI= 4.10). However, teachers are also satisfied with professional development as it has a great impact on their professional growth making them job oriented (N=223, MPI= 4.20). However, teachers are not satisfied with environment impact as indicated in the value (N=223, MPI= 3.15).

Objective 2

The second objective of the study was to assess practices of teachers during teaching learning process after getting training. The related research question was what is the frequency of strategies adopted by teachers after getting through trainings?

Table 1.2
Descriptive Statistics Results of Teachers' Observation

Factor	N	Mean	Std. Deviation	MPI
Personal impact	30	11.633	2.76035	1.9388
Professional impact	30	6.866	1.07425	0.2288

MPI= (Mean Per Item), N= 30

Table 1.2 shows mean and standard deviation of factors constituting teachers' observation checklist. Two major factors were chosen to assess the role of professional development, these were personal impact and professional impact. From the results, it is clearly evident that professional development has positive impact on teachers' personality and helps to enhance and polish their skills (MPI= 1.93, N=30). However professional impact which directly deals with classroom implementation and instructional strategies of teachers, it is evident from table 1.2 that profession development did not have satisfactory impact on teachers' classroom instructional methodologies (MPI= 0.22, N=30). The results of the observation data show the theory and practice gap at the implementation level in classrooms by the teachers.

Objective 3

The third objective of the study was to explore the relationship between perceptions and practices of teachers after training. The related research question was what is the relationship between professional development and teachers' classroom strategies?

Table 1.3
Descriptive Statistic Results of Correlation Test (SPSS) Questionnaire and Observation

		Mean	S.D
Questionnaire factors	Pearson Correlation	1	180.441
	Sig. (2-tailed)		18.54
	N	222	
Observation Factors	Pearson Correlation	-.097	18.500
	Sig. (2-tailed)	.611	3.471
	N	30	

**Correlation is significant at the 0.01 level (2-tailed).

The Pearson correlation value of $-.097$ indicates that there was negative correlation between professional development and practices of teachers. The results indicate that there is gap between theory and practices by the teachers while implementing inside the classroom. The results of questionnaire indicate a positive relation of professional development as Pearson correlation is 1 but the correlation of observation is $-.097$. Further, the value $P = .611$ also confirming that there was no significant correlation between professional development and classroom implementation by the teachers.

Table 1.4

Descriptive Statistic Results of Correlation Test (SPSS) Observational Factors

Factors			Mean	S.D
Personal	Pearson Correlation	1	11.6333	2.760
	Sig. (2-tailed)			
	N	30		
Professional	Pearson Correlation	.553**	6.8667	1.074
	Sig. (2-tailed)	.002		
	N	30		

In table 1.4 the value $.553^{**}$ specified a positive correlation between personal and professional factors. The P value = $.002$ confirmed that there was a significant correlation between personal and professional factors of professional development of teachers. The results indicate that the personal competences had a strong positive association with professional competences of teachers.

Table 1.5

Descriptive Statistic Results of Correlation Test (SPSS) Questionnaire and Observation Professional Factor

Factor			Mean	S.D
Questionnaire	Pearson Correlation	1	72.695	8.580
	Sig. (2-tailed)			
	N	222		
Observation	Pearson Correlation	.133	6.866	1.074
	Sig. (2-tailed)	.482		
	N	30		

In table 1.5 the Pearson correlation value $.133$ indicated a positive correlation between theory and practice of professional factors. Further, the value of $P = .482$ also proved that there was a significant correlation between the professional factors of teachers.

Table 1.6
Descriptive Statistic Results of Correlation Test (SPSS) Questionnaire and Observation Personal Factor

Factor			Mean	S.D
Questionnaire	Pearson Correlation	1	45.121	5.944
	Sig. (2-tailed)			
	N	222		
Observation	Pearson Correlation	-.039	11.633	2.760
	Sig. (2-tailed)	.837		
	N	30		

The Pearson correlation value of $-.039$ indicated there was negative correlation between perceived and observed personal factors. The value of $P = .837$ also confirmed that there is no significant relationship between perceived and observed personal factors of teachers.

Objective 4

The fourth objective of the study was to identify the influence of demographic factors on teachers' professional development and its classroom implementation. ANOVA was run on demographic factors including qualification, age, experience and training duration as a difference in these aspects has a different effect on professional development. So to consider them, the above mentioned test was applied and described below.

Table 1.7
One way ANOVA between the age of the Teachers and Professional development

	Sum of Square	Df	Mean Square	F	Sig.
Between Groups	370.688	2	0.536	.536	0.586
Within Groups	75668.051	219	345.516		
Total	76038.739	221			

Table 1.7 indicates that there was a significant effect of age on professional development at the $p < .05$ level for the three conditions [$F(2, 223) = .536, p = 0.586$].

Table 1.8
One way ANOVA between the experience of the Teachers and Professional development

	Sum of Square	Df	Mean square	F	Sig.
Between Groups	2966.926	3	988.975	2.95	0.034
Within Groups	73071.813	218	335.192		
Total	76038.739	221			

Table 1.8 indicates that there was no significant effect of experience on professional development at the $p < .05$ level for the three conditions [$F(3, 223) = 2.95, p = 0.034$].

Table 1.9
One way ANOVA between the qualification of the Teachers and Professional development

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	254.53874	2	127.269	0.368	0.693
Within Groups	75784.200	219	346.047		
Total	76038.739	221			

Table 1.9 shows that there was no significant effect of qualification on professional development at the $p < .05$ level for the three conditions [$F(2, 223) = 0.368, p = 0.693$].

Table 1.10
One way ANOVA between the training duration of the Teachers and Professional development

	Sum of Square	Df	Mean square	F	Sig.
Between Groups	40.449	2	20.225	0.058	0.943
Within Groups	75998.289	219	347.024		
Total	76038.739	221			

Table indicates that there was no significant effect of training duration on professional development at the $p < .05$ level for the three conditions [$F(2, 223) = 0.058, p = 0.943$].

Discussions

Professional development is an essential component for improving quality of education in general and quality of teaching in particular. It is also considered as the most readily available highway which leads to growth on the job (Fullan, 2007). The teachers also believe that professional development helps them in improving their level of knowledge and skills that directly influence the learning of students (Cohen & Hill, 2009).



The main research questions of the current research were to examine the personal, professional and school environmental impacts on professional development of teachers, and barriers in successful implementation of professional development.

The statistical analysis of perceived professional development here confirmed that professional development has a very positive impact on teachers. It enhances their pedagogical skills, stimulates their attitude about teaching and learning, makes their teaching process more flexible, polishes their existing skills i.e. decision making, time management, interaction and communication skills, boosts their confidence etc. Learning of new skills complements one's strength and confidence which overall effects the learning and well-being (Harris & Jones, 2017) of teachers. The results of the study are in agreement with previous studies indicating that training of teachers in the fields of content knowledge and pedagogical skills asserts effective teaching and positively impacts the achievements of students (Harris 2008; Moore, 2000; Rehman, 2018).

The results of the current study also verified that there is no significant effect of qualification on teachers' professional development as it equipped the teachers' basic necessary skills and knowledge which enhances their effectiveness and students' achievements.

Conclusion

This research study examined and explored the perception of teachers about professional development and its implementation in the classrooms. This study would be a springboard in the upgrading and transformation of professional development programs in order to bring reforms for the provision of more effective professional development training activities for teachers, which ultimately leads to the betterment of education system in Pakistan. Professional development is about coaching the teachers by keeping in mind what teachers already know and building on that expertise to fortify their pedagogical as well as professional practices.

The results of the study demonstrate that professional development training programs have great influence in the transformation of instructional methodologies and play a significant role in self-adjustment, capacity building and professional growth. Both quantitative and qualitative data of the study affirmed that professional development is a preliminary step in the teaching learning process, that it enriches the teachers' capabilities, positively influences the students' learning and strengthens the educational system.



REFERENCES

- Almeida, C. M. (2016). Urban and rural preservice special education teachers' computer use and perceptions of self-efficacy. *Rural Special Education Quarterly*, 35(3), 12-19.
- Bradshaw, L., & Mundia, L. (2006). Attitudes to and concerns about inclusive education: Bruneian inservice and preservice teachers. *International Journal of Special Education*, 21(1), 35-41.
- Casale, M. (2011). *Teachers' perceptions of professional development: An exploration of delivery models*. (Doctoral Dissertation). Retrieved from proquest Dissertations and Theses. (3450417)
- Cohen, D., & Hill, H. C. (2009). Fixing teacher professional development. *Phi Delta Kappan*, 90(7), 470-476.
- Fullan, M. (2007). Change the terms for teacher learning. *The Learning Professional*, 28(3), 35.
- Harris, A., & Jones, M. S. (2017). Professional learning communities: a strategy for school and system improvement?. *Cylchgrawn addysg cymru/wales journal of education*, 19(1), 16-38
- Harris, J. (2008). One Size Doesn't Fit All: Customizing Educational Technology Professional Development (Part Two: Choosing ETPD Models).
- Moore, J. E. (2000). One road to turnover: An examination of work exhaustion in technology professionals. *MIS quarterly*, 141-168.
- Hassan, N., Ahmad, N., & Aminuddin, W. M. W. (2013). Selection of mobile network operator using analytic hierarchy process (AHP). *Advances in Natural and Applied Sciences*, 7(1), 1-5.
- Kaplan, L.S., & Owings, W.A., (2004). Introduction to special issue: Teacher effectiveness. *NASSP Bulletin*, 88(638), 1-4.
- Lee, S. L. (2013) "Professional Development and Teacher Perception of Efficacy for Inclusion" *Electronic Theses and Dissertations*. Paper 1131. <https://dc.etsu.edu/etd/1131>
- Lopez, V., & Hernandez, M. I. (2015). Scratch as a computational modelling tool for teaching physics. *Physics Education*, 50(3), 310.
- Marwa, K, M. (2012), Benefits of Continuous Professional Development on Teaching Effectiveness: A Study of Selected Secondary Schools in Mombasa County, Kenya
- Oyedele, V., & Chikwature, W. (2016). Factors that affect professional development in education on teacher efficacy in Chipinge district high schools. *European Journal of Research in Social sciences*, 4(4), 56-71.
- Qureshi, A. N.S. (2008). *A Dynamic View of Education*. Peshawar: Gandhara Hindko Board Pakistan, 147-148.
- Rehman, A. A. (2018). The Effect of the Shift in Professional Development Models on a Saudi Arabian University Context. *Sumerianz Journal of Education, Linguistics and Literature*, 1(3), 68-78.



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- Subban, P., & Shannen, K. (2006). Differentiated instruction: A research basis. *International education journal*, 7(7), 935-947.
- Walker, S. (2010) Professional growth of special educational personnel through the use of a collaborative process. (Doctoral dissertation). Retrieved from proquest Dissertations and Theses. (3424343)