

## Effect of Teacher's Professional Development on The Teachers' Instructional Practices in Special Education

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### Abstract

*The study was performed to see the effect of Teachers' Professional Development on the Teacher's Instructional Practices in Special Education. The aims of this research include exploring the use of special education teacher instructional practices in schools and studying the influence of professional development on instructional practices of teachers. The study was quantitative in nature and used a self-developed survey for the collection of data from respondents. Descriptive and inferential statistics were used to analyze data. The result indicates that instructional practices differ on the basis of gender; however, qualification has no influence on instructional practices. Moreover, the distance (division) of respondents, duration of training did not affect the professional development of respondents. Moreover, professional development had a direct relationship with the instructional practices in special education.*

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### Introduction

Technical revolution, economic instability, and global competition are just a few of the global challenges that have forced mankind to change. Adapting to globalization and their environments demands continuous learning ([Galbraith & Fouch, 2007](#)). Continuous professional development is clearly required for teachers in order to keep up with global problems. School reform and school improvement literature have increasingly focused on teachers' ongoing professional development (PD) in light of the view that student learning and performance are dependent on the effectiveness of their teachers ([OECD, 2009](#)). [Warren, Cooper & Lamb \(2006\)](#) assert that teachers must engage in professional development on a regular basis in order to improve their instructional abilities and proficiency. Training and professional development can be thought of as processes aiming to strengthen educators' professional knowledge, abilities, and behaviors in order to ensure better students' learning.

The instructor's ability and devotion determine the educational quality. A teacher is inefficient and unsuccessful if he does not keep up with rapid advances in science and education. "The teacher is regarded the most critical component in implementing all instructional innovations at the grassroots level," according to the National Education Policy (1998-2010, p. 47). The influence of a teacher's academic qualifications, subject-matter expertise, teaching skills and talents, and passion on the teaching-learning process is evident. The most important factors which influence the teacher's practices are teacher training and professional development. Education and development may be seen as procedures meant to strengthen instructors' professional knowledge, abilities, and attitudes to promote student learning, in turn. Professional development is an essential part of making teacher expert, especially in areas of education that are more complete in their conception, but

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via reflective approaches and experiences, many other vital elements of education may be supported.

Modern civilization requires teachers to provide high-quality education and learning. Teachers must have many skills and expertise in the field of both instructional and learning procedures to achieve these quality education requirements and criteria. As a result, one of the most important components of teachers' classroom practice is the process of professional training and growth. If teachers have a solid basis, they may employ a number of teaching tactics effectively in the classroom. A lot of people have recognized the value of teacher professional development ([Browell, 2000](#)). As a result, another research confirmed the contribution of professional development on teachers' classroom practices in a school setting ([Mensah & Jonathan, 2016](#)). According to ([Mensah & Jonathan, 2016](#)), "In any educational system, teacher professional development can't be neglected because it enhances teachers' capacity." But another research claims that "the responders' high degree of in-service training requirements indicates the low level of teaching skills and this shows that, despite spending a lot of money, energy, and time, the implemented in-service training had not reached a satisfactory level of students achievement and professionalism" ([Norwani, Daud, Mansor, & Yusof, 2017](#)).

Previous researches have contradicted professional development effectiveness regarding classroom practices and students' achievement. At this moment, the impact of teachers' professional development on their teaching techniques has not been identified. It shows that very little if any research exists on the relationship between professional development and the effect on instructional practices of teachers. However, this study will add research to this topic by an in-depth study of "The effect of teachers' professional development on the teachers' instructional practices in special education." The goal of this quantitative study was to see how teacher professional development affected special education instructors' teaching approaches. To examine the impact of professional development on special education teaching methods, this study conducted a quantitative examination of teacher perceptions. The method via which children with impairments are educated is through

instructional activities. Professional development may be used to provide instructional methods. The aim of this study is to look at the link between teacher professional development and instructional techniques.

## Literature Review

When a child is referred to as a special student, it means that he or she has a significant social, mental, or physical difference from the ordinary student. Children with emotional or cognitive impairments, learning disabilities and intellectual disabilities, deafness, blindness, difficulty speaking, and mental illnesses, as well as giftedness, childhood disease, and learning disabilities can all benefit from special education programs (Mangal, 2007).

Even though there are occasional instances of handicapped persons being cared for and treated in ancient Greece and Rome, most early cultures rejected those who were different. Even while special education approaches have been there since medieval times, it wasn't until the Renaissance that practices linked with special education began to emerge, according to the Renaissance's emphasis on human dignity. Pedro Ponce de León taught deaf children in Spain to talk, read, and write in the mid-1500s; Juan Pablo Bonet, who produced the first book on the topic in 1620, is said to have adopted his methods. A greater European interest in deaf education resulted as a result of this. When John Bulwer taught deaf individuals to talk and lip-read in the 17th century, he wrote about it. As Charles-Michel, abbé de l'Épée (1712–89) did in France; he developed a systematized and conventional sign language enabling deaf and hard-of-hearing individuals to communicate with one other. Roch-AmbroiseCucurron and Abbé Sicard built on his work to create the manual system, or silent technique, for teaching persons with hearing problems how to read and write. This approach was devised by Friedrich Moritz Hill (1805–74), a notable deaf educator in the nineteenth century, according to the "natural method" in Germany. As a result, oral education grew and spread over the world (Winzer, 1993).

However, no significant initiatives to teach or train people with vision impairments have been made. In 1784, he established the National Institution for Blind Youth (Institution Nationale des Jeunes Aveugles) in Paris with 12 blind students, giving him the title "father and apostle"

of the blind. Haiüy's success in teaching these youngsters to read spread fast throughout Europe and the United States, and he quickly became a household name. From Liverpool, England (1791), to London, England (1799), to Vienna, Austria (1804), to Berlin, Germany (1806), to Amsterdam, Stockholm, and Zürich, Switzerland (1809), to Boston, Massachusetts (1829), to New York City, New York (1931), (Mantey, 2014).

France's Jean-Marc Gaspard Itard was a topologist who pioneered the use of scientific methods to educate children with disabilities. A kid found wandering in the Aveyron forests took him five years to train and educate. As a result of Itard's work with the child, new possibilities for the education of people with mental or emotional problems have opened up. During Edouard Séguin's 1848 migration to the United States, his student devised a teaching method that incorporated physical and sensory exercises to enhance brain functions. Seguin's published writings impacted an Italian pediatrician who went on to become an educator and the inventor of a unique technique for educating mentally handicapped children who were also culturally impoverished. "Didactic materials" were particularly created for sensorimotor training in her system, which stressed self-education (Mantey, 2014).

In the late twentieth century, people with disabilities began to get specialized education. The terms "interindividual differences" and "intraindividual differences" were used to compare the talents of one youngster to those of another. Interindividual differences are used to classify students in special education classrooms, but intraindividual differences, or a kid's strengths and limitations, are used to [determine instructional processes for each child](#) (Baltes & Smith, 2004).

### Instructional Practices in Special Education

Students with physical or mental disabilities benefit from special education programs. In an ideal special education classroom, students with disabilities get high-quality instruction. A special education program is still needed for seriously disabled children, despite the current trend of online education and the inclusion of special education students in regular classes. For those students who need it most, special education classrooms are designed to give extensive,

customized care (Taylor, 2005). For all of their pupils' benefit, special education teachers can employ the following techniques ([Friend, Cook, Hurley-Chamberlain & Shamberger, 2010](#)).

### Form Small Groups

Students can be divided into small groups of two or three, according to their academic abilities. While one group could be focusing on the fundamentals, another other might be honing their geometry abilities. A group of students would be formed according to the same ability levels and educational goals along their educational journey (1995).

### Create Classroom Centers

Students can also be grouped through the use of classroom centers. One region or level would be covered by each center. As far as instructions and instructional materials, the centers would be completely self-contained. For the instructor to cycle between the several centers, they'd be identity and personality as well. To facilitate the groups, a teacher's assistant, a parent, or a volunteer might help. Some of these centers would be self-explanatory, but not at the expense of teaching time ([Daniels & Bizar, 2005](#)).

### Blend 'the Basics' with more Specialized Instruction

Teaching basic ideas to the full group while coupling them with individual teaching is another approach to different tutor levels of students. Individual pupils can benefit from this regardless of their degree of competence because every school topic includes some basic principles that could be useful ([Crouch, Watkins, Fagen & Mazur, 2007](#)).

### Rotate Lessons

As a result, the teacher may present new content to one group each day while simply needing to check in on the other groups that are performing more autonomous tasks. In such a lesson cycle, the teaching assistant might also be of assistance ([Murawski & Hughes, 2009](#)).

### Try Thematic Instruction

In thematic education, several subjects are taught using a single topic as a common thread. Students in special education classrooms have proven that this approach of teaching is highly

successful and efficient. It may be anything from a current occurrence to a topic for writing to a historical event. It's up to you! It's possible to connect a historical event with a variety of other topics; for example, to keep students interested, the theme should catch their attention ([Grossman, Valencia, et al., 2000](#)).

### Professional Development

Training, certification, and education are all examples of professional growth. Certain occupations demand certain abilities, which is no mystery. Workers may require more talents in the future, even if they have the appropriate skills now. Workers can acquire these skills through professional development in order to become better and more efficient employees. A worker's development can be aided through a range of educational and training opportunities. College courses, Professional development may take many forms, including online training programs, industry certifications, coaching, mentorship, and consultancy ([Villegas-Reimers, 2003](#)).

### Employer Advantages of Professional Development

Profession development has several advantages for employers. One benefit of this is that employees are more likely to stick around. Facts reveal turnover costs up to 16 percent of a worker's yearly salary, according to the Bureau of Labor Statistics (BLS). Professional development can help people obtain the certification and training they need for their job ([Haider, Rasli, Akhtar, Yusuf, Malik, Aamir & Tariq, 2015](#)).

### The Importance of Special Education Professional Development

The importance of appropriate professional development for special education instructors who are responsible for enabling student achievement has never been greater. Personalized learning for kids with special needs continues to be enhanced by technology, enabling their specific requirements to be adequately fulfilled and assessed ([Monaghan & Columbaro, 2008](#)).

### Students Have Better Learning Outcomes

It's difficult for instructors to keep up with the latest educational technologies, school district requirements, and curriculum standards since

they're always changing. To become better educators, teachers must engage in professional development that allows them to provide relevant and tailored course materials for today's students. According to research undertaken by the Institute of Education Sciences of the United States Department of Education, teacher participation in well-designed professional development programs can increase student performance by up to 21 percentile points ([Lawless & Pellegrino, 2007](#)).

### Teachers Learn Better Ways to Teach

In the classroom, educators can adapt their lecture styles and curriculum to better fit students' requirements when they learn new teaching tactics through professional development. These modifications, on the other hand, are difficult to assess because they are usually introduced gradually. Professional development assists instructors in becoming more efficient in their presentations and course evaluations by introducing them to new delivery methods, assessment styles, and record-keeping systems ([Thistlethwaite, Davies, Ekeocha, Kidd, MacDougall, Matthews & Clay, 2012](#)).

### Effective Teachers Professional Development

The growing interest in teacher professional development as a means to assist the increasingly complex abilities pupils must master in the 21st century is growing. Proficiency in difficult subjects, self-direction, critical thinking, complicated problem solving, good communication, and cooperation all need sophisticated teaching approaches. As a result, effective professional development (PD) is critical to assisting educators in acquiring and improving the instructional strategies needed to teach these skills ([Darling-Hammond, Hyler & Gardner, 2017](#)).

### Aspects of a Successful Professional Development Program

As a result of this technique, we identified seven qualities that are commonly accepted as essential to good professional growth. Professional growth such as this ([Darling-Hammond, Hyler & Gardner, 2017](#)): a) *Content-focused* b) *Active Learning* c) *Collaboration* d) *Models and Modelling* e) *Coaching and Expert Support* f) *Reflection and Feedback* g) *Sustained Duration*.

## Conditions for Effective Professional Development

The way a professional development initiative is executed has an impact on how effective it is at improving teacher practice and student learning. Some instructors, despite their best efforts, are unable to apply professional development methods owing to barriers beyond their control, according to researchers. Due to hurdles such as ([Darling-Hammond, Hyler, and Gardner, 2017](#)):

- Inadequate resources, such as needed curriculum materials;
- No consensus on what high-quality education looks like.
- the school day or the school year is too short of adopting new teaching techniques
- incoherent policies at both the state and municipal levels;
- School cultures can be dysfunctional
- Professional progress cannot be tracked or assessed.

During the planning and implementation phases of professional development, teachers' and students' specific requirements, as well as the school and district settings in which teaching and learning will take place, should be taken into account ([Darling-Hammond, Hyler & Gardner, 2017](#)).

## Keys to Professional Development Success

In the "kingdom of teaching," however, everything is not lost. A number of efforts are fueling a significant shift in teacher education toward more reform-oriented methodologies. Regardless of the fact that professional development programs vary widely in terms of context and specifics, a few fundamental qualities have been recognized as essential to their effectiveness. The focus on instructors' engagement in the change process, the length of the program, modeling opportunities, and a collaborative framework are all aspects of adult learning. [Loucks-Horsley et al. \(1998\)](#) offer seven guidelines for effective professional development events.

- A clear picture of what successful classroom learning and teaching looks like
- Make it possible for educators to further their education and develop their abilities.

- To help pupils learn, utilize or model the techniques, you plan to employ with them.
- Constructing an educational neighborhood
- Encourage the leadership abilities of educators by providing resources and training.
- Set up linkages to other sections of the educational system and monitor their progress.

## Methodology

### Research Design

The research study was descriptive in character, and it supplied quantitative figures as requested by the participants. Descriptive research is a sort of research that focuses on characterizing the characteristics of the population or subject under study. This method emphasizes the "what" of the study topic rather than the "why" of the research topic. The study's purpose was to investigate how professional development influences teachers' teaching strategies in special education.

### Research Instrument

The research instrument (questionnaire) consists of two parts. In the main part, the investigator had asked for the demographic information of respondents. The second part consists of 2 factors and 13 items with a five-point Likert agreement rating scale.

### The Population of the Study

A whole group about which some data is needed to be investigated (Banerjee and Chaudhry 2010). At least one single characteristic of interest must be shared by the population. All teachers employed in Govt. special education centers of Punjab were the population of the study. The researcher found that there are 294 institutes and 2406 teachers in the special education department (Punjab Special Education Policy, 2020). With a very small number of Govt. special education institutes and teachers, the researcher selects all divisions of Punjab.

### Sample of the Study

The sample of the study was comprised of 205 special education teachers who have experience

teaching students with special needs from all divisions of Punjab. Convenience sampling was used for the collection of data.

### The Procedure of Data Collection

Keeping in view the ongoing situation of the COVID-19 pandemic, the data was collected online by utilizing Google forms. The researcher shared a link with colleagues and asked them to fill the questionnaire. Besides it, the researcher also posts and share the link in social media groups of teachers employed in govt. The special education department requested to fill the questionnaire.

### Delimitation of the Study

Because of constraints of time and finance, this research study has the following delimitations.

1. The researcher has developed an instrument herself due to the unavailability of a standardized instrument. Therefore, the results might be carefully generalized.
2. The population size of the study was limited. Therefore, random sampling was

not possible. Therefore, the results might be carefully generalized.

3. Due to time, traveling constraints, and the COVID\_19 pandemic, the researcher could not conduct a large no of personal visits to collect data. Therefore, the data was collected by Google forms and social media.
4. The study was delimited only to Punjab and only to the special education department.

### Data Analysis & Interpretation

For analysis of data, both descriptive and inferential statistics were used. Demographic variables and frequency distributions were calculated. Mean and Standard deviations of the responses were calculated to rank order the instructional practices. An Independent sample t-test was employed against gender and teacher education. One way ANOVA employed against experience, qualification, and division in which serve, number of training. The correlation was carried out to see the relationship between the teacher's professional development and the teacher's instructional practices.

**Table 1.** Demographic Analysis of Sample

S. No	Description	Frequency	Percent	Mean	SD
<b>Gender</b>					
1	Male	60	29.3	1.71	0.456
2	Female	145	70.7		
	Total	205	100		
<b>Training program</b>					
1	Yes	196	95.6	1.0441	0.206
2	No	9	4.4		
	Total	205	100		
<b>Qualification</b>					
1	Master in special education	124	60.5	1.4049	0.512
2	M.Phil. in special education	79	38.5		
3	Ph.D. in special education	2	1		
	Total	205	100		
<b>Division</b>					
1	Bahawalpur	9	4.4	5.3902	2.346
2	Dera Ghazi khan	20	9.8		
3	Faisalabad	18	8.8		
4	Gujranwala	17	8.3		
5	Lahore	58	28.3		
6	Multan	20	9.8		
7	Rawalpindi	7	3.4		
8	Sahiwal	29	14.1		

S. No	Description	Frequency	Percent	Mean	SD
9	Sargodha	27	13.2		
	Total	205	100		
<b>Experience</b>					
1	less than 1 year	22	10.7		
2	1Y	20	9.8		
3	2 Y	28	13.7		
4	3 Y	45	22		
5	4 Y	14	6.8		
6	5 Y	25	12.2		
7	6 Y	16	7.8		
8	7 Y	5	2.4		
9	8 Y	1	0.5		
10	9 Y	2	1		
11	10 Y	8	3.9	5.4683	4.266
12	11 Y	2	1		
13	12 Y	3	1.5		
14	13 Y	2	1		
15	14 Y	2	1		
16	15 Y	4	2		
17	16 Y	2	1		
18	18 Y	2	1		
19	22 Y	1	0.5		
20	25 Y	1	0.5		
	Total	205	100		
<b>Number of training's attended</b>					
1	1-2	89	43.4		
2	3-4	60	29.3		
3	5-6	28	13.7		
4	7-8	15	7.3		
5	9-10	3	1.5	2.1512	1.547
6	11-12	3	1.5		
7	13-14	1	0.5		
8	Above 15	6	2.9		
	Total	205	100		
<b>First Training Conducted After Job</b>					
1	within one week	29	14.1		
2	2 weeks	7	3.4		
3	3 weeks	4	2		
4	1 month	33	16.1	3.3122	1.414
5	within 6 months	47	22.9		
6	within one year or year	46	22.4		
7	2 years	23	11.2		

S. No	Description	Frequency	Percent	Mean	SD
8	3 years	6	2.9		
9	4 years	10	4.9		
	Total	205	100		
<b>Duration of Training</b>					
1	1 day	18	8.8		
2	2 days	33	16.1		
3	1 week	90	43.9	4.8634	2.128
4	2 weeks	21	10.2		
5	one month	17	8.3		
6	a course	26	12.7		
	Total	205	100		
<b>Take Part in a Master Training</b>					
1	Yes	135	65.9	1.3415	0.475
2	No	70	34.1		
	Total	205	100		

**Table 2.** Mean and Standard Deviation of Responses of Teachers about Instructional Practices

Statement	Mean	SD
<b>Factor 1 (structured practices)</b>		
Every day, I go through my children's exercise books or assignments.	4.40	.676
I assign several work tasks to children who are having difficulty learning.	4.26	.676
I assign alternative work tasks to kids who progress more quickly.	4.23	.722
I provide students with an overview/summary of recently studied material.	4.13	.712
To show why new information is important in the classroom, I uses a situation from ordinary life or business.	4.12	.745
I let students perform comparable activities until I'm confident that they've grasped the material.	4.04	.779
Student's assessment is measured through summative procedures.	4.03	.798
Mean average	4.17	
<b>Factor 2 (Student-Centered Practices)</b>		
Keeping in my view allow time to students to complete their projects according to their needs.	4.32	.757
Keeping in my view students' pace to work on projects according to student need.	4.31	.625
In the classroom, students collaborate in small groups to solve a problem or complete an assignment.	4.17	.697
Students' performance and achievements are reinforced in informal ways.	4.15	.778
Students' assessment is measured through formative procedures.	4.05	.781
Allow students to use ICT for projects or classwork.	4.03	.822
Mean average	4.17	



**Table 3.** T-test at the Base of Gender to Compare the Means

Instructional Practices	Gender of respondents	N	Mean	SD	Df	T	Sig.
Structured practices	Male	60	28.516	2.652	203	-2.112	.093*
	Female	145	29.489	3.133			
Student-centered practices	Male	60	24.266	2.476	129.40	-2.684	.020**
	Female	145	25.344	2.930			

\* $P > .05$  and \*\* $p < .05$  Level of Significance

The table reveals that the male mean and standard deviation of student-centered practices is (M=24.266, SD=2.476) while the female mean and standard deviation is (M=25.344, SD=2.930). The t-value is -2.684, the significant value is .020

(less than .05), and the significance value of structured practices is 0.093 (higher than .05). It is found that special education instructors implement student center methods in the classroom.

**Table 4.** T-test at the Base of Gender to Compare the Means

Gender	N	Mean	SD	Df	t	Sig.
Male	60	52.783	4.349	203	-2.595	.029
Female	145	54.834	5.444			

\* $P < .05$  Level of Significance

According to the table, the male mean and standard deviation are (M=52.783, SD=4.349), and the female mean and standard deviation are (M=54.834, SD=5.444). The t-value is -2.595, and the significant value is .029, which is less than .05.

It is determined that there is a substantial difference in respondents' perspectives regarding the influence of teachers' professional development on teachers' instructional practices in special education based on gender.

**Table 5.** T-test at the Base of Teachers Training to Compare the Means

Instructional practices	Did you complete a teacher education or training program?	N	Mean	SD	df	t	Sig.
Structured practices	Yes	195	29.184	3.031	202	-.680	.832
	No	9	29.888	3.100			
Student-centered practices	Yes	195	25.020	2.887	202	-.207	.273
	No	9	25.222	1.922			

\* $P > .05$  Level of Significance

The table shows that the in the first section of structural practices for yes mean and the standard deviation is 29.184 & 3.031 and mean, and standard deviation for no is (M=29.888, SD=3.100). In the second section of student-centered practices, for yes mean, and the standard deviation is 25.020 & 2.887 and for no

mean and standard deviation is 25.222 & 1.922. The t-values are -.680 and -.207, respectively, and the significant values are .832 and .273, both of which are larger than .05. It is found that there is no statistically significant difference in the usage of instructional methods based on teacher education or training program.

**Table 6.** One Way ANOVA test at the Base of Qualification to Compare the Means

Qualification of Participants	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	65.944	2	32.971	1.112	.300
Within Groups	5496.818	202	27.212		
Total	5562.761	204			

\* $P > .05$  Level of Significance

There was a statistically significant difference (5.759) between group means as determined by one-way ANOVA ( $F(2,202) = 1.112, P=.300$ ). This shows that there is no significant difference in the

opinion of respondents on the basis of their qualification regarding the effects of teachers' professional development on the teachers' instructional practices in special education.

**Table 7.** One Way ANOVA test at the Base of Division to Compare the Means

Division	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	297.516	8	37.190	1.384	.205
Within Groups	5265.245	196	26.863		
Total	5562.761	204			

\* $P > .05$  Level of Significance

According to one-way ANOVA ( $F(8,196) = 1.384, P=.205$ ), there was a statistically significant difference (10.327) between group averages. This demonstrates that there is no significant

difference in respondents' opinions of the effects of teachers' professional development on teachers' instructional methods in special education according to their division.

**Table 8.** One Way ANOVA test at the Base of Experience to Compare the Means

Experience	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	410.696	19	21.616	.776	.733
Within Groups	5152.065	185	27.849		
Total	5562.761	204			

\* $P > .05$  Level of Significance

According to one-way ANOVA ( $F(19,185) = .776, P=.733$ ), there was a statistically significant difference (6.233) between group averages. This demonstrates that there is no substantial

difference in respondents' opinions on the influence of teachers' professional development on teachers' instructional methods in special education based on their experience.

**Table 9.** One Way ANOVA test at the Base of No. of Training to Compare the Means

Training	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	175.861	7	25.123	.919	.493
Within Groups	5386.900	197	27.345		
Total	5562.761	204			

\* $P > .05$  Level of Significance

As indicated by one way ANOVA ( $F(7,197) = .919, P=.493$ ), there was a statistically significant difference (2.222) between group averages. This demonstrates that there is no significant difference in respondents' opinions

on the benefits of teachers' professional development on teachers' instructional practices in special education based on the number of training they have received.

**Table 10.** One Way ANOVA test at the Base of Durations of Trainings to Compare the Means

Duration	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	135.012	5	27.002	.990	.425
Within Groups	5427.749	199	27.275		
Total	5562.761	204			

\* $P > .05$  Level of Significance

According to one-way ANOVA, there was no statistically significant difference between group averages ( $F(5,199) = .990, P = .425$ ). This demonstrates that there is no significant

difference in respondents' opinions on the influence of teachers' professional development on teachers' instructional practices in special education based on their length of training.

**Table 11.** Correlation between Professional Development and the Instructional Practices

Correlations		Instructional practices	Professional development
Instructional practices	Pearson Correlation	1	.017
Professional development	Pearson Correlation	.017	1

The table shows the relationship between instructional practices and professional development. The correlation test shows a less significant value (0.017) which is evidence that with the increase in Professional development, the instructional practices get improved in special education. It proves our claim there is a significant effect of professional development on the instructional practices in special education.

### Findings of Study

Survey of 205 teachers in Lahore, Pakistan, found that majority of them had completed teacher education and training had attended 1-2 (43.3%) number of training, and the majority (22.9%) attended their first training within 6 months. 124 teachers were masters in special education, 79(38.5%) were M.Phil. holders, and 2(1%) Ph.D. holders with respect to qualification. There is a significant difference in the opinion of respondents regarding the effect of teachers' professional development on the teachers' instructional practices in special education. By comparing the mean value types of instructional practices with the gender of respondents, there is no significant difference between structured and student-centered practices. The correlation test shows a less significant value (0.017) which is evidence that with the increase in Professional development, the instructional practices get improved in special education.

### Discussion

Earth is changing its dynamics every time, and this may bring new challenges to counter with advanced techniques. This teaching profession is also a constantly challenging paradigm, and these challenges demand every time new kinds of counter-attacks. In this regard professional

development of teachers with the help of professional training is a key option. New courses and abilities necessitate a variety of teaching experiences that will be beneficial to the pedagogical system. Special education is a type of education for children who have special needs. So efficient Professional development enables special educators to gain information and skills that will assist them in addressing children's learning difficulties. In this regard, content training is the most effective method of keeping educators interested. The efficiency of professional development as seen by teachers demonstrates that professional development is beneficial in acquiring new skills and teaching strategies. In a research Mensha & Jonathan, 2016 says that professional development provides effective teaching practices to the teachers. There is a significant difference exists on the basis of genders for utilizing the student centre approach by professionals.

Other Results of this study show that teacher's training has less effect on professional development, and no significant difference is shown on the basis of professional training on educational practices. And also, the duration of training is also not giving strength to the professional development of teachers. As said by [Norwani et al \(2017\)](#) that intensive training can lose the temperament for better professional understanding, this validates our results in this regard. But these results are different from formal researches. Other factors not addressed in this study may have contributed to the findings. The first element might be connected to the students themselves, such as their background, surroundings, peer influence, economics, and parents. The second issue might be related to the way professional training and training content. To achieve the goal, the management and

execution of the training must be appropriate for the implementation, facilitator delivery mode, implementation cost, and so on. In addition, in order to accomplish the aim of its implementation, professional training content should include duties and responsibilities, according to the position held and the like. The training content should be according to the latest syllabus, and it should be clear and easy to understand the problems of special children in school. There are a large number of participants who have experience up to 3 years that also may affect the results.

## **Conclusion**

This study was conducted to study the effect of teachers' professional development on the teacher's instructional practices in special education. It was concluded that gender was an effect on the use of instructional practices in the classroom experience; qualification did not affect the instructional practices. Moreover, the distance (division) of respondents, duration of training did not affect the professional development of respondents. Moreover, professional development had a direct relationship with the instructional practices in special education.

## References

- Baltes, P. B., & Smith, J. (2004). Lifespan psychology: From developmental contextualism to developmental biocultural co-constructivism. *Research in human development, 1*(3), 123-144.
- Browell, S. (2000). Staff development and professional education: a cooperative model. *Journal of Workplace Learning, 12*(2), 57-65. <https://doi.org/10.1108/13665620010316208>
- Crouch, C. H., Watkins, J., Fagen, A. P., & Mazur, E. (2007). Peer instruction: Engaging students one-on-one, all at once. *Research-based reform of university physics, 1*(1), 40-95.
- Daniels, H., & Bizar, M. (2005). *Teaching the best practice way: Methods that matter, K-12*. Stenhouse Publishers.
- Darling-Hammond, L., Hyler, M. E., & Gardner, M. (2017). *Effective teacher professional development*. Learning Policy Institute.
- Friend, M., Cook, L., Hurley-Chamberlain, D., & Shamberger, C. (2010). Co-teaching: An illustration of the complexity of collaboration in special education. *Journal of educational and psychological consultation, 20*(1), 9-27.
- Galbraith, D. D., & Fouch, S. E. (2007). *Principles of adult learning application to safety training*. Professional Safety, 52(09).
- Grossman, P. L., Valencia, S. W., Evans, K., Thompson, C., Martin, S., & Place, N. (2000). Transitions into teaching: Learning to teach writing in teacher education and beyond. *Journal of literacy research, 32*(4), 631-662.
- Haider, M., Rasli, A., Akhtar, S., Yusoff, R. B. M., Malik, O. M., Aamir, A., & Tariq, F. (2015). The impact of human resource practices on employee retention in the telecom sector. *International Journal of Economics and Financial Issues, 5*(1S), 63-69.
- Lawless, K. A., & Pellegrino, J. W. (2007). Professional development in integrating technology into teaching and learning: Knowns, unknowns, and ways to pursue better questions and answers. *Review of educational research, 77*(4), 575-614.
- Loucks-Horsley, K., Hewson, P., Love, N., & S., Stiles (1998). *Designing professional development for teachers of science and mathematics*. Thousand Oaks, CA: Corwin Press.
- Mensah, D. K. D., & Jonathan, A. W. (2016). Teacher professional development: Keys to basic school teachers' curriculum practice success in Ghana. *British Journal of Education, 4*(4), 29-37.
- Monaghan, C. H., & Columbaro, N. L. (2008). Communities of practice and students' professional development. *International Journal of Teaching and Learning in Higher Education, 20*(3), 413-424.
- Murawski, W. W., & Hughes, C. E. (2009). Response to intervention, collaboration, and co-teaching: A logical combination for successful systemic change. *Preventing School Failure: Alternative Education for Children and Youth, 53*(4), 267-277.
- Norwani, N. M., Daud, W. M. N. W., Mansor, M., & Yusof, R. (2017). The relationship between in-service training and teaching skills with student achievement. *International Journal of Academic Research in Business and Social Sciences, 7*(12), 2222-6990.
- OECD. (2009). *Creating Effective Teaching and Learning Environments*.
- Thistlethwaite, J. E., Davies, D., Ekeocha, S., Kidd, J. M., MacDougall, C., Matthews, P., & Clay, D. (2012). The effectiveness of case-based learning in health professional education. A BEME systematic review: BEME Guide No. 23. *Medical teacher, 34*(6), e421-e444.
- Villegas-Reimers, E. (2003). *Teacher professional development: an international review of the literature*. Paris: International Institute for Educational Planning.
- Warren, E., Cooper, T., & Lamb, J. (2006). Teacher professional development in patterns and algebra: Being sensitive to a teacher's zone of proximal development. *Identities, cultures and learning spaces, 5*(4), 542-550.