Teachers' Professional Development Needs at School Level in Pakistan: An analysis of Teachers' Classroom Practices

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Abstract

The study aims to investigate professional development needs of in-service teachers at the primary school level in Pakistan. Applying a mixed- method approach, both qualitative and quantitative, data were collected via a survey questionnaire and structured interviews respectively. A Pearson-product moment correlation coefficient was applied to establish the relationship among multiple variables based on needs for teachers' professional development. Quantitative results revealed that variables V1 (i.e., contents and performance standards in the main subject field), V7 (i.e., teaching students with special learning needs), V3 (i.e., classroom management), V2 (i.e., students' assessment practices), and V10 (i.e., students' counseling) have high correlations with multiple variables respectively. On the other hand, qualitative data collected through interviews, validated quantitative survey results. The qualitative data emphasized over the professional training concerning classroom management, teaching students with special learning needs, the students' assessment practices and student counseling in order to enhance their development. The study has implications for teachers, educationists and teacher trainers.

Keywords: professional development, teachers' training, classroom practices

1. Introduction

Teachers' professional development is the prime factor in quality education (de Vries, Jansen, & van de Grift, 2013). For teachers' development, it is essential to determine the changing needs of teacher education. Teachers' personal development, team work, and school development are all linked to their the development of skills because they are helpful in keeping teachers up-to-date, maintaining good teaching practice, and networking with others (Blandford, 2012). All these factors directly influence students' learning and development. According to Blandford (2012), teachers' development enhances the performance of children to achieve excellence. Moreover, "professional development proves helpful in rectifying the ineffective practice, establishing the groundwork for implementation of policy and in facilitating the change" (Blandford, 2012).

Pakistan is a developing country where the literacy ratio is very low as compared to the developed countries (Khan, 2010). Especially, education at primary school level is highly dependent upon teachers' professional expertise. However, the situation is far from that since most of the school teachers are ill-equipped to deliver knowledge and have deficiencies in overall teaching quality (Initiative, 2012). In addition, education at primary school faces many problems, including the problem of teachers' professional growth to meet the challenges of the time (Shah, Ghazi, Ullah, & shah, 2014; Simkins, Sisum, & Memon, 2003).

The present study aims to investigate teachers' professional development needs (Henceforth, PDN) at the primary school level. The needs concerning teachers' professional development differ across various educational contexts (Davies et al., 2014; Hong & Kang, 2010). Moreover, to the best of authors' knowledge, little research has been conducted regarding teacher' professional development needs especially at primary school level. Information is usually context-oriented and cannot be used universally. In this perspective, the present study focuses on the PDN of primary school teachers in Pakistan, which is yet to be explored.

2. Literature Review

Before delving into the previous works concerning PDN, it is important to define professional development needs. According to Blandford (2012), PDN refers to the areas of development which, according to teachers are most essential for their growth as a teacher. These areas mostly relate to the teachers' classroom practices as well as to their qualification concerning the subject.

Examining the needs of professional development through a review of literature of 210 research articles, Davies et al. (2014) identified multiple qualities of teachers to enhance creativity in students. Their systematic review of literature reports teachers development as "building teachers positive relationships, modeling creative behavior, long-term curriculum planning, striking a balance between freedom and structure, understanding learners' needs and learning styles, creating opportunities for peer collaboration and assessment, and effective use of resources". From a qualitative data obtained from 110 teachers, Wayman and Jimerson (2014) study highlights needs for data-related professional learning. In terms of PDN, their study focused on the data obtained through assessments, achievement tests, disciplinary information, parental information, quizzes, and teachers' observations. They conclude that data obtained through the above-mentioned factors help in teachers' professional growth.

Previous literature shows that ineffectiveness of teachers' development programs result in teachers' lack of professional skills. For example, F. H. Wood and Thompson (1980) view training programs and professional development as irrelevant and unsuccessful, seemingly a sort of information dissemination rather than focusing on the use of appropriate practice in the classroom. The same view is supported by Guskey (1985, 1986) about the ineffectiveness of professional development. In the same perspective, Fullan and Stiegelbauer (1991) argue that 'one shot' development programs are unable to reflect enduring changes in teachers' professional behavior. Based on the above criticism on professional development programs, it can be concluded that, firstly, teacher development programs should be relevant and, secondly, these programs should be continuous and need-based. In this regard, it is important first, to conduct needs analysis to overview what factors are essential for professional development programs in a language learning context and then focus on the weaker areas through continuous professional development.

The concept of teachers as reflective practitioners encompasses teachers' classroom practices as a source of reflection for teachers to develop themselves. An accountability of teachers' practices is a way to inform teachers of their problems. From this perspective, teachers are learners who enhance their learning through reflection, inquiry and collaboration (Daloglu, 2004; Guskey, 1986; Schön, 1987; Williams & Burden, 1997). According to Schön (1987), the ongoing critical reflection as teachers is the first step toward reflective practitioners. Teachers, as reflective practitioners, can identify needs for their development. Reflection is, therefore, the prime factor in needs analysis for teachers' professional development. In addition, Clarke and Hollingsworth

(2002, p. 949) model of teachers' change considers "schools as learning communities" and "teachers as learners" where teachers as learners are able to learn from their practices. The concept of "teachers as learners" provides a dimension to identify a set of needs with respect to the related language teaching context for their professional growth that would serve as the remedy (p. 949). From their case study of 10 school teachers, extended over a period of 3 months, Ross and Bruce (2007), working on teachers' self-assessment, propose a theory regarding teachers' reflection of their practices. According to their theory of change, three processes are involved in teachers' progress, which are self-observations, self-assessments, and self-reflections. The first process of the above-mentioned theory is related to PDN where teachers' observe themselves in regard to their practice. This is the stage where teachers make an assessment of their professional development needs and the process of development starts further. In the same way in general context, teachers' development needs help them to identify the problematic areas and then to overcome the problems related to teaching.

There is a high emphasis of the use of technology in order to enhance teachers' professional development and to deliver knowledge to students (Kopcha, 2012; Lai, 2015; S.-K. Wang, Hsu, Reeves, & Coster, 2014). In their study of interactive whiteboard use in five primary schools, R. Wood and Ashfield (2008) report that teachers' skills and professional knowledge is the basic interface between pupils and technology, Working on the use of technology for teachers' professional development, Marx, Blumenfeld, Krajcik, and Soloway (1998) conclude, "teachers' will not profit from technology nor will it be self-sustaining unless infrastructure capacity is developed, including attention to resources and maintenance" (p. 50). The need of technology for teachers' professional development is linked to the systemic infrastructure as a source of knowledge to keep teachers' updated about their existing knowledge. Teachers' professional development is possible through the use of technology because it will enable them to analyze their development prerequisites. The concept of PDN is, Therefore, of primary importance when it comes to the use of technology.

Previous literature also shows that teachers' professional development is social. According to Marx et al. (1998), "knowledge is social that is distributed among group members and professional development must balance a focus on individual competence and on socially shared, collaborative activities that can support individual proficiency" (p. 34). X. Wang, Lee, Kim, and Kim (2014), propose the concept of epistemic community where "knowledge creation happens on multiple levels in an interconnected manner: within classroom practices, within interconnection among learners, the teacher and the researchers, with the discourses between the teachers and researchers, and so forth" (p. 22). Working on teachers' professional development regarding Chinese educational context, Weiping (2005) proposes 2+2 sharing formula in order to enhance teachers' performance. "It serves as a channel for teachers to value one another and contribute to each other's job performance and to maximize professional interactions, decrease teacher isolation, and increase meaningful feedback that leads to improve instructional performance" (Weiping, 2005, p. 1013). Teachers' development cannot take place in isolation. It requires a combination of factors explained above. Moreover, examining teachers' PDN, we should take into consideration all the factors related to teacher performance in the perspective of a specific educational context.

After a thorough review of previous literature, it can be concluded that the following factors are essential for consideration in regard to teachers' professional development. First, ineffective 'one shot' programs are not sufficient to fulfill teachers' professional development needs. Second, teachers' as reflective practitioners can better assess their needs for professional development. Third, action research is a useful way to facilitate professional development of teachers. Fourth, use of technology is a possible way to update teachers to overcome upcoming challenges. Finally, professional development happens at multiple levels in an interconnected manner among learners, teachers and researchers in the form of a community.

3. Methods

3.1 The Context

Professional development needs program in the present study relates to primary school teachers in Pakistan. The data were collected both quantitatively and qualitatively. Quantitative data were collected from 254 school teachers (grade 1-5) in five cities, that is, Islamabad, Rawalpindi, Abbottabad, Wah Cantt, and Sargodha through a questionnaire regarding the needs for professional development at primary school level. A psychometric scale (1 = No need at all to 4 = High level of need) was used to assess the needs for teachers' professional development at school level. A total of 10 variables regarding classroom practices were included in the study. Qualitative data were collected through structured interviews comprising the same 10 questions, which were investigated through quantitative survey. These were. The data collection triangulation is summed up in the following diagram.
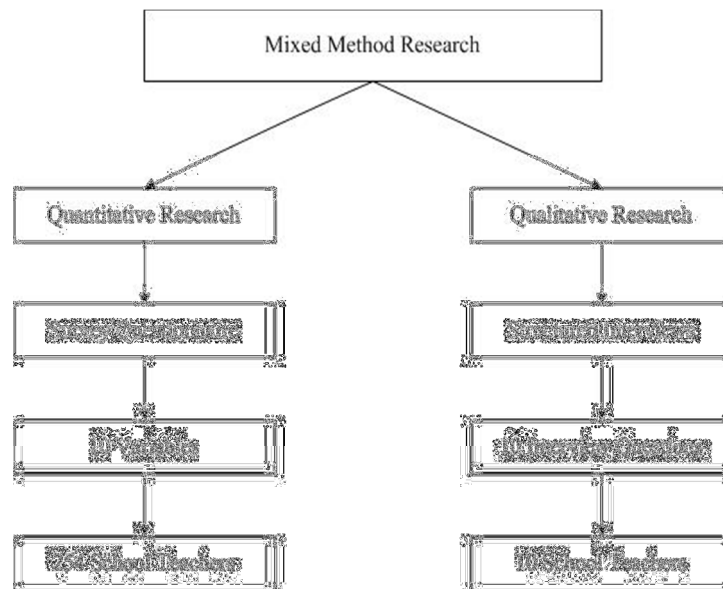

Figure 3.1: **The Data Collection Procedure Regarding Teachers' Professional Development**

3.2 Participants
Participants for quantitative survey were primary school teachers with varying teaching experiences irrespective of their subject specialties were included in the study. The information based on teachers' experiences and age groups has been included in Table 3.1.

Table 3.1:**Demographic Information**

Age

	Frequency	Percent	Valid Percent	Cumulative Percent
under 25	76	29.9	29.9	29.9
26-29	72	28.3	28.3	58.3
30-39	62	24.4	24.4	82.7
40-49	44	17.3	17.3	100.0
Total	254	100.0	100.0	

Working period as teacher

	Frequency	Percent	Valid Percent	Cumulative Percent
This is my first year	37	14.6	14.6	14.6
1-2 years	59	23.2	23.2	37.8
3-5 years	58	22.8	22.8	60.6
6-10 years	43	16.9	16.9	77.6
11-15	26	10.2	10.2	87.8
15+	31	12.2	12.2	100.0
Total	254	100.0	100.0	

Qualitative interviews were conducted with 10 primary school teachers. Interviews were recorded, transcribed verbatim, and subsequently analyzed using NVivo. Finally, results from both qualitative and quantitative data were compared through triangulation during the analysis.

3.3 Instrumentation
TALIS (Teaching and Learning International Survey) questionnaire of teaching and learning of at school level (Gilleece, Shiel, Perkins, & Proctor, 2009) was adopted for quantitative data collection. The survey regarding teachers' professional development was modified keeping in view the contextual requirements of language teaching context in Pakistan. In general OECD questionnaire includes five broad sections. Section-I is based on background information such as gender, employment status, education and teaching experience. Section-II is related to teachers' professional development and needs. The last three sections include teachers' appraisal, theirs attitudes and teaching in a particular school context.

The present study adopted only two sections, that is, Section-I and II, which concerning teachers' demographic information and their professional development. However, these two sections were modified keeping in view the educational context of Pakistan. Teachers' professional development

needs have been investigated on a psychometric scale ranging from 1(i.e., no need at all) to 4 (i.e., high level of need).

For qualitative inquiry, survey questions were modified for structured interviews. Special care was taken while adopting survey question for structured interviews so that they should reflect the same central idea. A professional translator assisted in the translation of the survey. In order to assure the content validity of the questions, two expert teachers rated the interview questions for the relevance of content and ideas. Qualitative data were collected from 10 teachers.

3.4 Correlation

A Pearson product-moment correlation was used to determine the relationship between the groups of variables regarding teachers' professional development needs. A total of 10 variables were included to determine which aspects are highly needed for teachers' professional development. The data showed no violation of normality, linearity or homoscedasticity. A strong positive correlation was noticed between some of the variables. The following parameter has been suggested by Cohen (1998, pp. 79-81) in order to determine the strength of positive relationship.

Small   r =.10 to .29
Medium   r =.30 to .49
Large   r= .50 to 1.0

However the present study has only considered the correlations with .50 or higher values keeping in view the validity of the results. The detail of correlations between the variables has been explained table 2.

Table 3.2:**Correlations**

Code	Variables	1	2	3	4	5	6	7	8	9	10
V1	Contents and Performance standard in main subject fields	1									
V2	students assessment practices	.666**	1								
V3	Classroom management	.601**	.647**	1							
V4	Knowledge and understanding of my main subject field	.589**	.465**	.527**	1						
V5	Knowledge and understanding of instructional practices	.598**	.504**	.500**	.649**	1					
V6	ICT skills for teaching	.449**	.491**	.470**	.499**	.448**	1				
V7	Teaching students with special learning needs	.569**	.595**	.564**	.416**	.505**	.547**	1			
V8	Students discipline and behavior problem	.429**	.492**	.538**	.484**	.442**	.506**	.546**	1		
V9	School management and administration	.443**	.507**	.505**	.412**	.327**	.457**	.506**	.546**	1	
V10	Student counseling	.505**	.589**	.557**	.442**	.456**	.599**	.526**	.586**	.486**	1

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

4.   Data Analysis

4.1 Contents and Performance Standards (V1)

The variable for "contents and performance standards" relates to teaching contents and teachers performance standards. The variable showed high association with *students' assessment practices (i.e. r=0.66), classroom management (i.e. r=0.60), knowledge and understanding of the main subject field (i.e. r=0.59), knowledge and understanding of the main instructional practices (i.e. r=0.58)*, and *students counseling (i.e. r=0.50)* respectively.   The correlation between these variables indicates teachers' preferences in relation to professional development training. Figure shows the set of correlations with respect to the *variable contents and performance standards*.
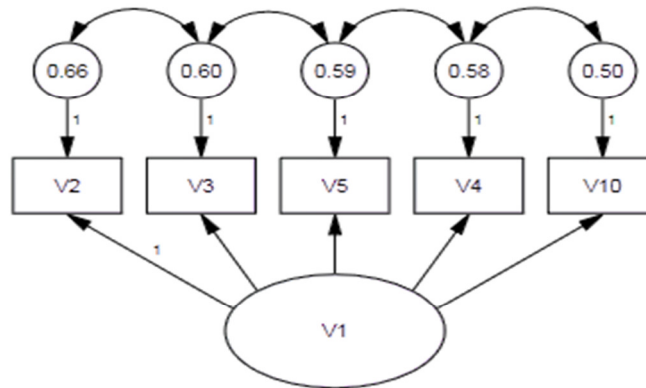
Figure 4.1:**Correlation Set of Variables with respect to Contents and Performance Standards**

Qualitative data obtained through interviews supported the results gathered through quantitative survey. The qualitative model in figure 3 shows that teachers consider *contents and performance standards* as a way to improve methodology of teaching as a criterion to judge the students' performance (i.e., Assessment). These aspects are variable V2 and V5 obtained through quantitative data. In addition, they expressed the need to link *contents and performance standards* with teacher training professional degrees, which verifies its connection to *knowledge and understanding of the main subject* as shown through quantitative data. A model based on teachers' interviews is presented in Figure 4.2.
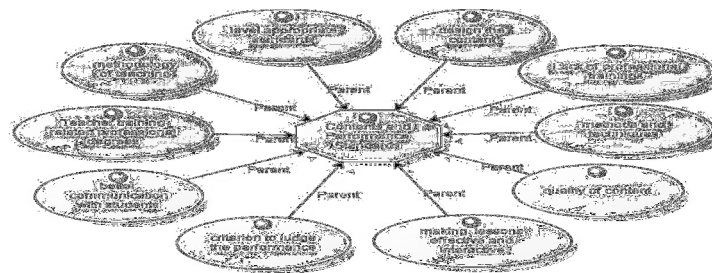

Figure 4.2:**Model of Suggested Factors Related to Contents and Performance Standards Based on Teachers' Interviews**

4.2 Student Assessment Practices (V2)

The variable for student assessment practices was highly related with *contents and performance standards (i.e., r=0.66), classroom management (i.e., r=0.64), teaching students with special learning needs (i.e., r=0.59), students' counseling (i.e., r=0.58), school management and administration (i.e., r=0.50) and knowledgeand understanding of instructional practices (i.e., r=0.50).* The variable of students' assessment practices having a high correlation with multiple variables reveals its importance in teaching and learning practices.
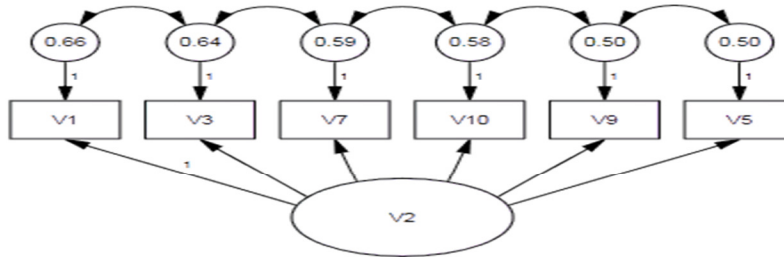
Figure 4.3:**A set of Correlations of Variables with respect to Students' Assessment Practices**

On the other hand, qualitative data based on teachers' interviews reveals multiple aspects of *assessment*. Most of the teachers were of the view that traditional ways of *assessment* should be changed. Moreover, assessment is equally helpful in pointing out students' weak areas and determining students' learning needs (i.e., special learning needs), boosting their confidence and producing better works. It has also got a link curriculum and teaching objectives (i.e., contents and performance standards). The following figure shows the important aspects of the data obtained through teachers' interviews.
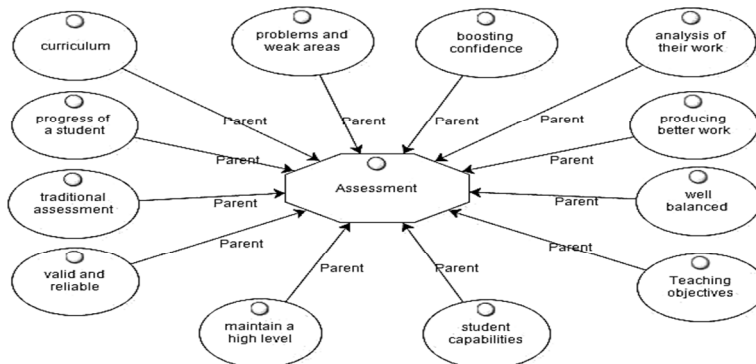

Figure 4.4:**Qualitative Data Model of Students' Assessment Practices and Related Factors**

4.3 Classroom Management (V3)

Classroom management apart from its relation to *contents and performance standards (i.e., r=0.60)* and *students' assessment (i.e., r=0.64)* practices was found highly correlated with *teaching students with special learning needs (i.e., r=0.56), students' counseling (i.e., r=0.55),*

students' *discipline and behavior problem (i.e., r=0.53), knowledge and understanding of my main subject field (i.e., r=0.52)*, and school *management and administration (i.e., r=0.50)*. Results from correlation (see

Table 3.2:Correlations) reveal that the variable of classroom management has the largest number of correlations with other variables. Correlation between *classroom management* and other factors have been shown in the following figure.
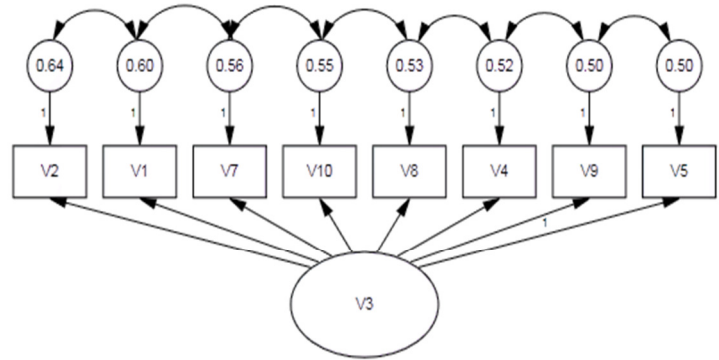

Figure 4.5:**A set of Correlations of Variables with respect to Classroom Practices**

Qualitative data based on teachers' interviews reveal that large classes and inexperienced teachers usually face the problem of classroom management. Qualitative data also validate the results obtained through quantitative data such as the facotor of *classroom management* is also related with *discipline and behaviour problem*, *course designing, in-depth understanding of students or students' counseling*, *abilities of teachers or teaching techniques* etc. A model based on teachers' interview in the perspective of classroom management is as follows.
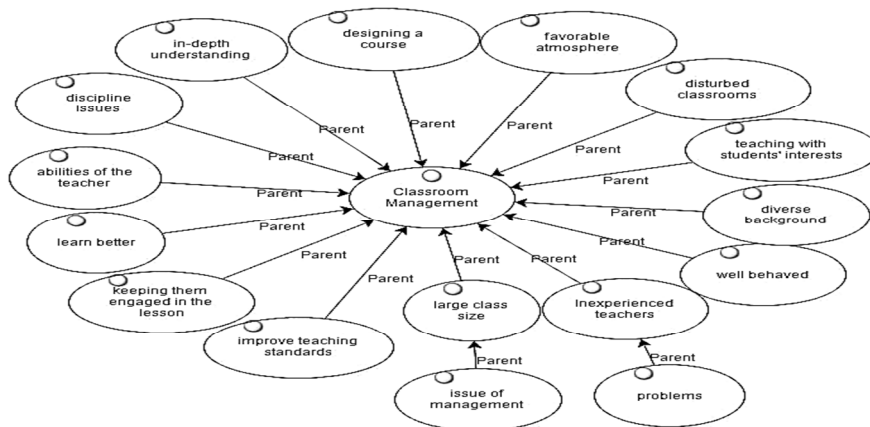

Figure 4.6:**The Qualitative Model of Classroom Management and Related Factors**

4.4 Knowledge and Understanding of the Main Subject Field

The variable relating teachers' knowledge and understanding of the main subject relates to the teachers' proficiency and knowledge. The variable was found to be highly correlated with *knowledge and understanding of instructional practices (i.e., r=0.64), contents and performance standards in main subject fields (i.e., r=0.58) and* *classroom management (i.e., r=0.52). Moreover, the aspect of ICT skills (i.e., r=0.49) for teaching* was also found highly correlated with teachers' *knowledge and understanding of the main subject*. The set of correlation is shown in the figure below.
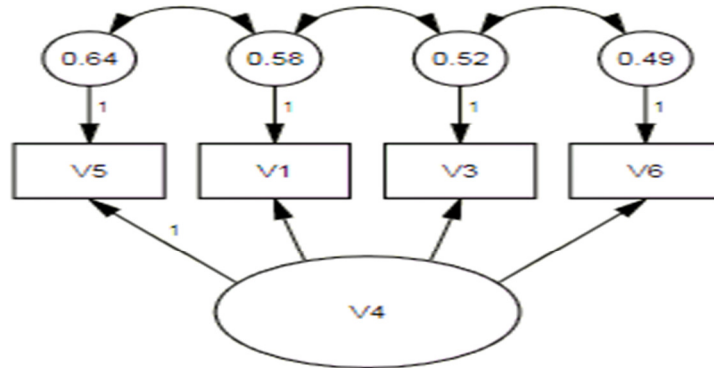
Figure 4.7: **A set of Correlations of Variables with respect to Knowledge and Understanding of the Main Subject Field**

Qualitative data confirmed the above results obtained through correlations. The results reveal that the knowledge and understanding of the main subject enhances teachers' classroom control that in turn, results in effective classroom management. Additionally, a teacher dealing with different subjects cannot have strong grip over all of them. Hence, it affects the performance of a teacher. In addition, command over subject results in better content and lesson planning. A model based on qualitative information is as follows.
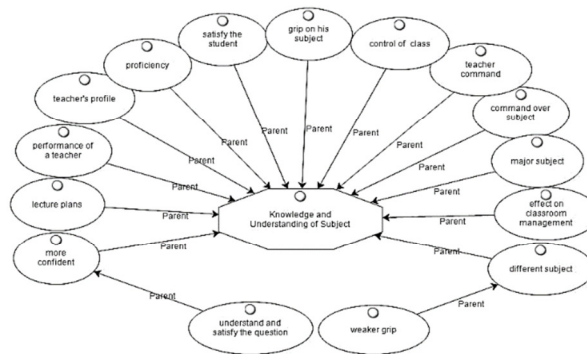

Figure 4.8: **A model based on knowledge and understanding of subject concerning teachers' professional development**

4.5 Knowledge and understanding of instructional practices (V5)
The variable relating to the *teachers' understanding of instructional* practices was found to have a high correlation with the following variables respectively.

I.   *Knowledge and understanding of my main subject field (i.e., r=0.64)*
II. *Contents and performance standard in main subject fields (i.e., r=0.59)*
III. *Teaching students with special learning needs (i.e., r=0.50)*
IV. *Students' assessment practices (i.e., r=0.50)*
V.   *Classroom management (i.e., r=0.50)*
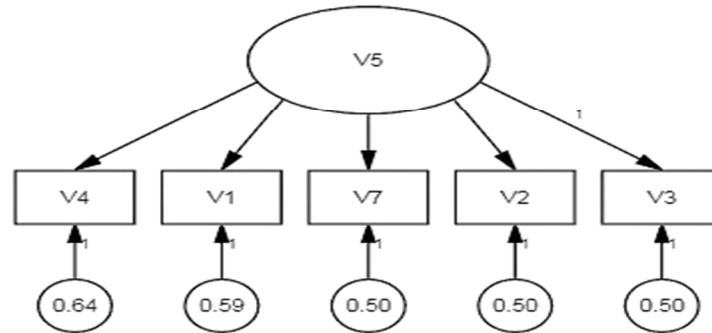
Figure 4.9:**A set of Correlations of Variables with respect to Knowledge and Understanding of Instructional Practices**

The results based on the Pearson correlation reveal that better understanding of the main subject field is essential along with contents and performance standards for better understanding of instructional practices. Teachers' instructional practices should also focus on teaching students with special learning needs, students' assessment practices and classroom management. Taken as a whole, the results reveal that the need for professional development regarding teachers' instructional practices is linked to the development of various variables mentioned above.

Analysis based on qualitative data was also found to be coinciding with the quantitative data. It shows that understanding of teaching practices strengthens teachers' command on subject and makes the topics easer and interesting. Moreover, a classroom is a combination of a variety of students' caliber where different techniques are required for different students keeping in view their special learning needs. A diagram based on teacher interviews relating teaching practices is as follows.
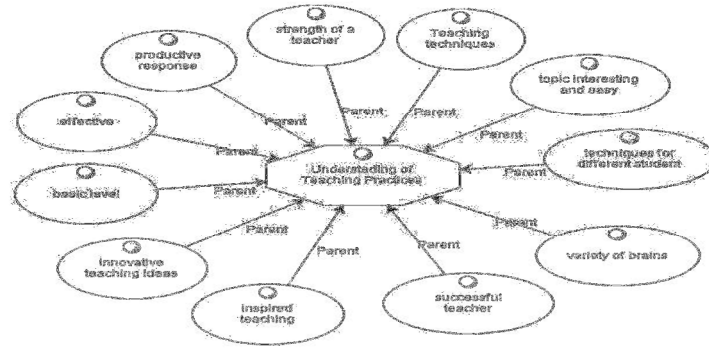
Figure 4.10: **A Qualitative Model Based on Understanding of Teaching Practices**

4.6 ICT skills for teaching (V6)

The variable concerning ICT skills was highly correlated to *student counseling* (*i.e.,* r=0.59) and *teaching students with special learning needs (i.e., r=0.54)*. The facts reveal that teachers, at primary school level, lack ICT skills to deliver knowledge through technology (Kopcha, 2012). Moreover, primary schools in Pakistan also lack computer related facilities (Ahmad, Rauf, Rashid, ur Rehman, & Salam, 2013). In this perspective, teachers feel a higher need of student counseling and teaching with special learning needs for better teaching outcomes.

On the other hand, the variable of *students discipline and behavior problem* (*i.e.,* r=0.58) and *knowledge and understanding of my main subject field (i.e., r=0.49)* were also found to be highly correlated with the variable of ICT skills. All these variables are summed up in the following figure.
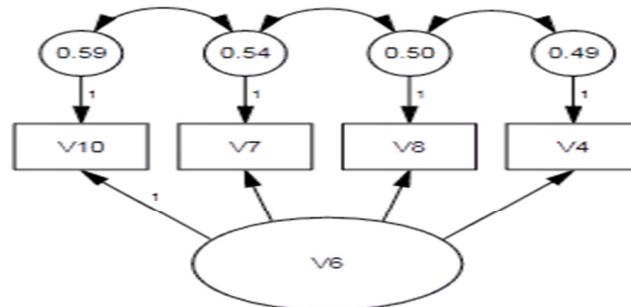

Figure 4.11: **A set of Correlations of Variables with respect to ICT Skills**

Qualitative data related to the inclusion of ICT skills at primary school level brought important information to the fore. The data suggests that the primary factor is student counseling or interest of students. ICT skills should be introduced in consultation with students. Expressing the advantages of ICT, most of the teachers regarded it as a tool to demonstrate concepts visually. Moreover, according to teachers, it enhances their teaching practices. Concerning the lack of use of ICT at primary school level, teachers held the school management responsible for not introducing ICT. A qualitative model based on teachers' uses of ICT skills is as follows.
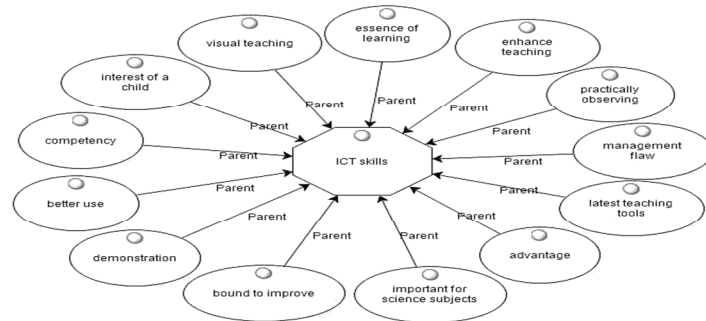
Figure 4.12: **A Qualitative Model Based on the Use of ICT**

4.7 Teaching students with special learning needs (V7)

The variable of teaching students with special learning needs was noticed to be highly correlated with multiple variables. The following figure of structural diagram shows the correlation among variables in comparison to special learning needs.
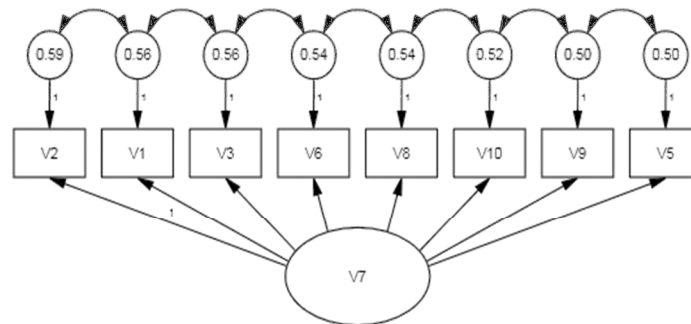

Figure 4.13: **A set of Correlations of Variables with respect to Teaching Students with Special Learning Needs**

Results reveal that professional development based on teaching students with special learning needs can have positive impact *on students' assessment practices (i.e., r=0.59), contents and performance standards (i.e., r=0.56), classroom practices (i.e., r=0.56), the use of ICT skills (i.e., r=0.54), students' discipline and behavior problem (i.e., r=0.54), students' counseling (i.e., r=0.52), school management and administration (i.e., r=0.50)* and *teachers' instructional practices (i.e., r=0.50).*

The qualitative data based on teachers' interviews also revealed novel information regarding students' special learning needs. Teachers viewed that *learner centered* teaching should be the primary focus in students' special learning needs. Moreover, in this perspective, they regarded *trained staff* and *curriculum design* as important aspects regarding individual learning needs. A model based on teachers' qualitative interviews is as follows.
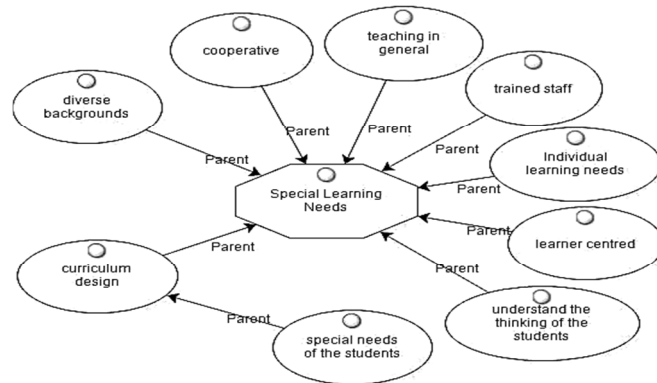
Figure 4.14:**A Qualitative Model Based on Students' Special Learning Needs**

4.8 Students' Discipline and Behavior Problem

Students' discipline and behavior problems were also found related to learners' educational development and teachers' professional growth. The variable relating student behavior was found highly associated with student counseling (*i.e.,* r=0.58), school management and administration (*i.e.,* r=0.54), teaching with special learning needs (*i.e.,* r=0.54), classroom management (*i.e.,* r=0.53), ICT skills for teaching (*i.e.,* r=0.56). A set of factors based on correlation is shown in the figure below.
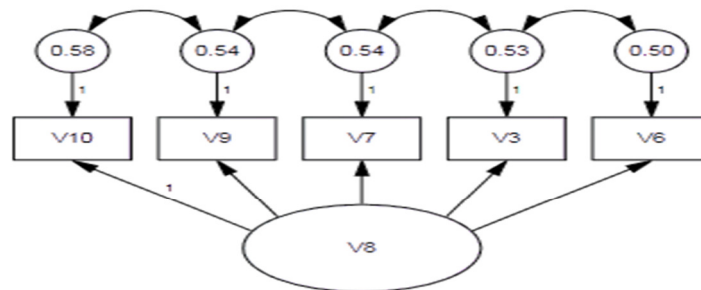

Figure 4.15: **A Set of Correlations with respect to Students' Behavior and Discipline Problem**

Qualitative data confirms the results obtained through quantitative survey. According to teachers, behavior issues arise due to lack of sufficient control of class (i.e., classroom management) and command on subject (i.e., knowledge of the main subject). On the other hand, disciplinary problem arises due to a lack of free communication to students (i.e., students' counseling) that bear poor results on the part of students in regard to improvement. Moreover, students' counseling and their parents' counseling are the ways to overcome discipline and behavior problems. A qualitative model relating students' discipline and behavior problem is as under.
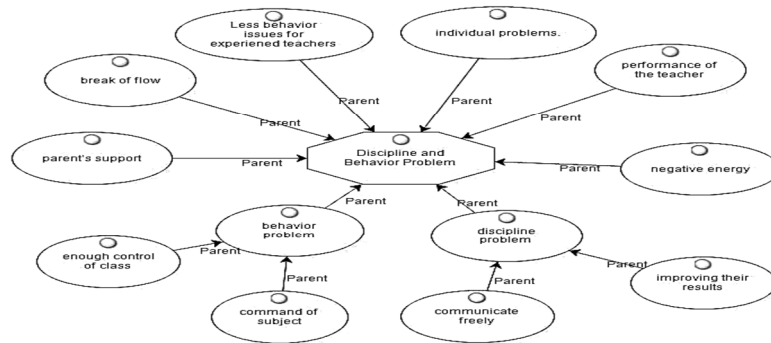
Figure 4.16:A Qualitative Set of Related Factors Concerning Discipline and Behaviour Problem

4.9 School Management and Administration (V9)

The factor of school management and administration was found highly correlated with only four variables. These variables are V8 (i.e., *students' discipline and behavior problem*s), V7 (i.e., teaching students with special learning needs), V3 (i.e., classroom management), and V2 (i.e., students' assessment practices). Figures show that out of these four variables, the factor of students' discipline and behavior problems was highly correlation with school management and administration as compared to the other correlated variables.
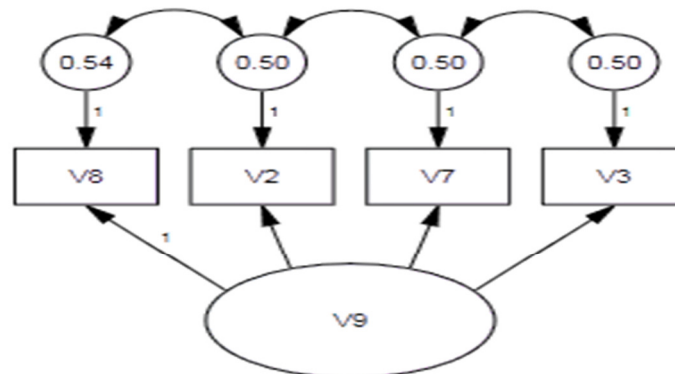

Figure 4.17:A Set of Correlations with respect to School Management and Administration

Qualitative data reveal school management and administration as the key element of success and failure, both on the part of teachers and students. Most of the teachers linked teacher appraisals with better results (i.e., better assessment). In addition good administration was reported as leading to motivated teachers and better-behaved students (i.e., discipline and behavior). On the other hand, financial problems were reported leading to conflicts between administration and teachers that turn into mental nuisance and poor performance. A model based on qualitative interview is shown below.
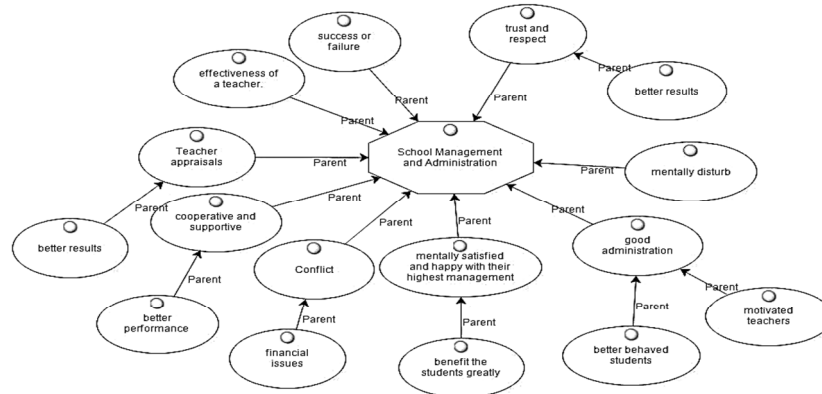
Figure 4.18: **A Qualitative Set of Correlations Regarding School Management and Administration**

4.10 Student Counseling (V10)

Student counseling was found to be highly correlated with the multiple variables V6 (i.e., ICT skills for teaching), V2 (i.e., Students' assessment practices), V8 (i.e., Students' discipline and behavior problem), V3 (i.e., classroom management), V7 (i.e., Teaching students with special learning needs), V1 (i.e., Contents and performance standard in main subject fields).
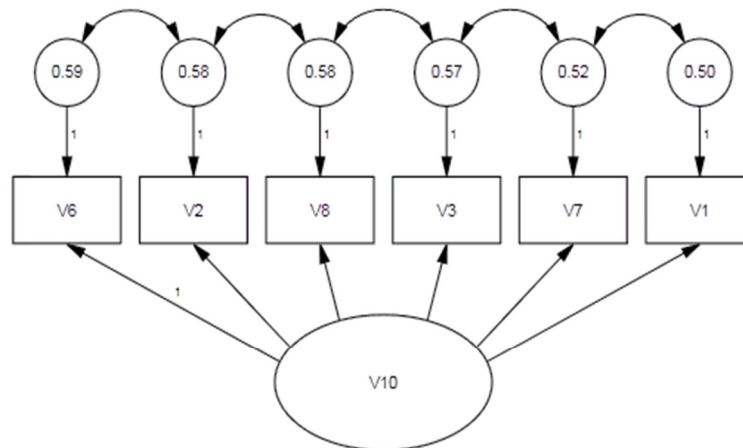

Figure 4.19: **A Set of Correlations with respect to Students' Counseling**

Results based on students' counseling reveal that counseling is required for teaching ICT skills (i.e., V6), doing assessment practices (i.e., V2), improving students' discipline and behavior problems (i.e. V8), *developing classroom practices* (i.e., V3), teaching students with special learning needs (i.e., V7), and evolving contents and performance standards (i.e., V1).

On the other hand, qualitative data confirmed the results obtained through quantitative survey. Teachers viewed student counseling as a liaison with student that can lead to better performance

and better results (i.e., assessment). Moreover, it is related to students' needs besides academics and affect students learning outcomes (i.e., special learning needs). A teacher needs to address these issues through good communication with the students. Most of the teachers termed students' counseling as a tool to explore hidden and apparent abilities of students. In a nutshell, learning should be student centered to meet all these challenges. A model based on teachers' qualitative views is as under.
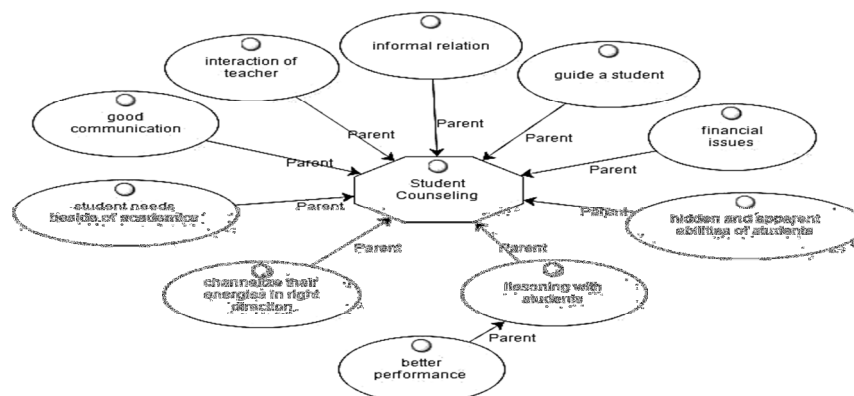

Figure 4.20: **A Qualitative Model of Student Counseling**

5. Discussion and Conclusions

The aim of the present study was to contribute to research on teachers' professional development needs. In an educational context like Pakistan where teachers' professional development has not received sufficient attention to enhance the quality of education, we investigated the factors needed for teachers' professional development. From this perspective, we selected 10 factorsrelated to professional growth and the practical aspects of teaching at primary school level in Pakistan. In order to determine which factors are closely linked with other group of factors, we applied Pearson product movement correlation method to investigate the areas where teachers feel a higher need of development regarding teaching.

From the results and the structural diagrams, it is evident that the variables V1 (i.e., contents and performance standards in the main subject field), V7 (i.e., teaching students with special learning needs), V8 (i.e., students' discipline and behavior problems) V3 (i.e., classroom management) V2 (i.e., students' assessment practices), and V10 (i.e., students' counseling) have high correlations with multiple variables. The correlations with multiple variables reflect the need of professional development in these areas. In addition, the focus on professional development in these dimensions can also have a positive effect on the related factors. The results concerning these groups of variables are partly in line with the previous research works (Brown 2004; Brown, Chaudhry, & Dhamija, 2015; Salkovsky, Romi, & Lewis, 2015; Sharon Ghuman & Cynthia Lloyd, 2010; Westbrook et al., 2009).

The findings in the present study signify that the variables V4 (i.e., knowledge and understanding of the main subject field), V6 (i.e., ICT skills for teaching), V5 (i.e., knowledge and understanding

of instructional practices), V9 (i.e., school management and administration), have high correlations but with a lesser number of variables. Such a correlation shows that teachers' professional development in these areas will have either a direct or an indirect effect on a lesser number of related factors. These findings are partly in line with the previous research (MacNeil, 2004; Mahmood & Ajmal Khan, 2007; Rizvi & Elliot, 2005; Simkins et al., 2003; Villegas-Reimers, 2003).

6. Limitations

The study sample consists of teachers at primary school level. Moreover, the study is related to the specific educational context of one country that is Pakistan. Hence, the findings of the present study need to be interpreted with reference to the professional development process of teachers in Pakistan and might not be generalizable. Moreover, the present study may only be applicable to primary school teachers.

The present study has adopted a cross-sectional research design to determine factors regarding teachers' professional development, which is useful only for research at a specific point of time. Our data provide insights into teachers' professional development needs, which may vary with the passage of time and context. Longitudinal research study is, therefore, needed to further investigate teachers' professional development by studying teachers' development through various stages in their careers.

7. Implications

The present study has several implications for teachers' professional development. Firstly, the study suggests a dimension for teachers' trainers to focus on factors such as contents and performance standards in the main subject field, teaching students with special learning needs, students' discipline and behavior problems, classroom management, students' assessment practices and students' counseling, which according to teachers are highly needed for them in order to develop instructional practices. Secondly, the study is also helpful for teacher training programs and workshops as this study provides a detailed list of important variables for teachers' professional development. Educationists, administrators and decision makers should, therefore, consider ways for teacher training and the aspects related to professional development.

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