Dimensions of School Effectiveness: A Study at Khyber Pukhtunkhwa Level in Pakistan

Dimensi Keberkesanan Sekolah: Satu kajian di Khyber Pukhtunkhwa, Pakistan

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Abstract

This study was aimed to find out the dimensions of school effectiveness based on the national education policies of Pakistan to assess school effectiveness in the context of KP province. The study was conducted in two phases, qualitative and quantitative respectively. In the first phase, total 100 of the teachers, principals, education officers, and intellectuals from parents were asked to write the most important dimensions of school effectiveness as they perceive through. Based on the data, twenty dimensions were found most common which were selected for the next quantitative phase for validation. In the second phase 367 teachers, including one district education officer, *two* sub-district education officers, *two* assistant sub district education officers, *two principal and ten parents (total 384 respondents) were studied. The data was analyzed through analysis techniques using SPSS. The analysis found three dimensions with thirteen sub-dimensions of the development of school effectiveness modes. The school effectiveness model established through this study provides useful information for enhancing school effectiveness in Pakistani schools and its implementation will assure school effectiveness in the context.*

Keywords: *Dimensions of school effectiveness, model of school effectiveness, quality assurance in schools, education process*

Introduction

The aim of the school effectiveness studies always remained to find the factors that make some schools better than others. Sometimes, for this purpose the factors were also studied that lead the schools to decline. In fact, there is consensus problem regarding school effectiveness in the related literature, because different researchers related it to different factors. Some of the researchers believed that school effectiveness is dependent to internal factors of school, while some others related to the external factors, school process, input, and output.

At the very beginning of school effectiveness research, Coleman et al. (1966) claimed that *"schools make no difference"*. It was an attempt to clarify that the external factors are responsible for school effectiveness. But later Ostroff, & Schmitt (1993) found the factors

like school culture and climate, leadership behaviors, students' achievement, administrative functioning, community support, mastery of basic skills, teachers' commitment and efficacy, parents' involvement, teachers' loyalty and satisfaction were involved in school effectiveness. It was proved that not only the external but internal factors can also affect school performance.

The different views by the researchers caused in dimensional approach to school effectiveness research, such as: internal factors are involved in school effectiveness (Aggarwal-Gupta & Vohra, 2010; Bredeson, 1985; Reynolds & Teddlie, 2000), school effectiveness is witnessed from input, output and process (Scheerens & Creemers, 1989), and school effectiveness is related to process (Brookover, Beady, & Flood, 1979; Edmonds, 1979; Rutter et al., 1979). But it is also a fact that measuring all these is very difficult (Ostroff, & Schmitt, 1993). So there is a need to focus the dimensions which are essential in school effectiveness.

However a question rises "*what constitutes an effective school*" (Reid, Hopkins & Holly, 1987; p.22), and "*what determines school effectiveness*" (Saleem et al, 2012). In Pakistan, standards for education inventories is a key deficit due to which a clear picture of school effectiveness in the context cannot be drawn (GoP NEP, 2009). Due to this problem the government schools cannot be evaluated for effectiveness, even they are enrolling 63% students (NEMIS Education Statistics, 2013-14). For the reason, the government schools in Pakistan are performing poor (Andrabi, Das & Khwaja, 2008; Iqbal, 2012).

Therefore, it becomes essential to determine school effectiveness dimensions in Pakistani context. Furthermore, this research study in school effectiveness will also enrich the body of knowledge in the context. If there exist lack of consensus in the context, then it is suggested to "*let alone others outside of the field altogether*" (Townsend, 2001; p.126). Regarding aims of this study, it is brought into two steps. In the first step, the dimensions were found out by visiting teachers, principals, education officers, and intellectual parents. While in the second step the known dimensions were validated and ordered in accordance to the preference given by the respondents.

To assess school effectiveness there are no indicators given in Pakistan that may be able to show a clear picture of the school effectiveness in the context (GoP NEP, 2009). Although, recently National Education Management Information System (NEMIS) has stepped forward to develop indicators for school effectiveness but, mostly they are borrowed from UNESCO (NEP, 2009: 12). In like situation the question 'what determines school effectiveness in Pakistan' will have to answer (Saleem et al, 2012). Out of this organizational effectiveness cannot be drawn (GoP NEP, 2009). Therefore, the first aim of this study is to find out and validate the determinants of school effectiveness, and the

second aim is to find the order of preference for validated dimensions of school effectiveness.

This study is an attempt to step forward for the suggestion of NEP-2009 in finding the dimensions for school effectiveness. Due to the lack of dimensions for school effectiveness, Pakistan for nearly six decades has not produced a single research study making a school effective (Saleem et al. 2012). This study contributes to determine the school effectiveness dimensions in the KP province (Pakistan). The findings of this study help the researchers to explore effectiveness in other tiers of education in different regions of Pakistan. The indicated order of dimensions for school effectiveness will help the central management in providing feedback.

Review of the related literature

Researchers have defined school effectiveness in different ways, depending on their school of thoughts and context of the research studies. In fact school effectiveness is "*the extent to which the desired level of output is achieved*" (Scheerens, Glas, & Thomas, 2003; p.223), "*the degree to which an organization ... manages to control internal organizational and environmental conditions, in order to provide … the outputs expected by external constituencies*" (Scheerens, et al. 2003; p. 94).

School effectiveness

Creemers (2002) has discussed that in fact the work on school effectiveness is started by Coleman et al. in 1966 and Jencks et al. in 1972. The two different backgrounds like sociological and psychological served behind these studies. But later Scheerens and Creemers (1989) argued that the roots of school effectiveness research are in the quantitative sociological inputs output studies.

Similarly, the inputs essential for school effectiveness were also studied by Glewwe, Hanushek, Humpage and Ravina (2011) and Iqbal (2012). The inputs and outputs may be either tangible or intangible, that were studied by some researchers (e.g. Awan & Saeed, 2014; Kazemi et al. 2012; Khan, 2013a; Khan, 2004). The psychological approach which concentrates on process rather than inputs, and make a relationship between inputs and outputs was studied by the some researchers (e.g. Brookover, Beady, & Flood, 1979; Edmonds, 1979; Rutter et al., 1979; Scheerens & Creemers, 1989).

Kristic (2012) discussed situational contingency theories such as path goal theory of House (1971) and House & Mitchell (1974), decision process theory of Vroom & Yetton (1973), life cycle theory of Hersey and Blanchard (1969), cognitive resource theory of

Fiedler & Garcia (1987). Considering all these theories it was stated that in fact school effectiveness is the condition of effectiveness enhancement (Scheerens, 2004). The researchers like Edmonds (1979) and Brookover et al. (1979) worked in the correlative period of school effectiveness.

After this period the criticism gave way to reorientation period of school effectiveness after 1985 (Ralph & Fennessey, 1983; Creemers, 2002). In this period Teddlie & Reynolds (2000) and Townsend, Clarke, and Ainscow (1999) contributed to school effectiveness research studies. Regarding school effectiveness the contribution of Reynolds is visible from 1970 to 1980. The movement for school effectiveness was basically started in United Kingdon and United States but later the Australia also took part in this movement (Creemers, 1983; Creemers, 2002; Creemers & Schaveling, 1985). All these studies were aimed to develop school effectiveness model, but the struggle is continued till now. To select the dimensions for this study a look into the school effectiveness theories and approaches is given below in detail.

School effectiveness approaches and theories

Scheerens (2015) studied 109 research studies; as a result he found that among these studies only six are theory based. In this study Scheerens (2015) discussed different theories of school effectiveness such as: The Quinn and Rohrbaugh model, the Coleman's functional community theory, the Creemers model, the Creemers comprehensive model, the Parson's social systems' theory, the Creemers comprehensive model, the Dynamic model, the Carroll model, and the Micro-economic theory. These theories were discussed to consider better framework for school effectiveness.

Creemers (2002) argued that the Carroll's model for learning in 1963 is a better model because it focuses on students background characteristics. Different approaches to school effectiveness always caused to create new thoughts and new dimensions, for example in 1979 Edmonds developed a five factor model in USA. The described factors were: (1) high expectations of student achievement, (2) frequent evaluation of pupil progress, (3) strong educational leadership, (4) safe and orderly climate, and (5) an emphasis on basic skills (Creemers, 2002).

Mortimore, Sammons, Stoll, Lewis, & Ecob (1988) discussed some characteristics of effective schools such as: a positive climate, thorough record-keeping, parental involvement, purposeful leadership of the staff by the head, a work-centered environment, involvement of the deputy head, consistency among teachers, a limited focus within sessions, involvement of teachers, intellectually challenging teaching, a structured day, maximum communication between teachers and pupils. The

comprehensive model of Creemers (2002) has four levels named as school effectiveness indicators for example; students' level, classroom level, school level, and context level. The internal factors of school effectiveness like high expectations of stakeholders for standards, cohesiveness, professionalism, shared decision making, clear policies, behaviors, and emphasis on basic skills were studied by a number of researchers (e.g. Brookover et al. 1979; Edmonds, 1979; Rutter, Maughan, Mortimore, & Ouston, 1979).

Some researchers support this concept that "*Schools can make a difference*" (e.g. Brookover, Beady, Flood, & Scweithzer, 1979; Khan, 2013b; & Saleem et al. 2012) and "*Schools matter*" (e.g. Ayeni and Adelabu, 2011; Day et al., 2010; Hallinger, 2003, 2010; Leithwood, Wahlstrom, & Anderson, 2010; Leithwood et al., 2006; MacBeath and Cheng, 2008; Mortimore et al., 1988; Saleem,et al. 2012).

Furthermore, Eddmonds (1982) and Ostroff and Schmitt (1993) claimed that the external and internal factors both are important in school effectiveness. These factors were discussed as leadership behaviors, administrative functioning, teachers' loyalty and satisfaction to develop a comprehensive model of school effectiveness, student achievement, mastery of basic skills, school culture and climate, community and parents support and involvement, teachers' commitment and efficacy.

The different stakeholders were involved to relate school effectiveness to different theories like "*parents attach much more importance to school outputs, than do the other subgroups*" (goal model), students "*…attach great importance to teaching skills.*" (system resource model), teachers "*...diffusing values among students are the most important indicator of school effectiveness*" (process model), Principals "*…perceive school effectiveness in terms of collecting inputs which can fuel the school processes and lead to school success*" (system resource model) (Saleem et al, 2012; p.243).

Teddlie & Reynolds (2000) made categories of school effectiveness research such as: (1) stability, consistency, and magnitude was named as "*School Effects Research*", (2) process of effective school was named as "*Effective School Research*", and (3) external school process was named as "*School Improvement Research*". Uline, Miller and Tschannen-Moran (1998) categorized school effectiveness research in instrumental activities and expressive activities. Lingard, Ladwig, and Luke (1998) discussed the categories for school effectiveness as behavior, knowledge and competences, and skills. Similarly, Cheng, (2001a; 2002a; 2003) discussed the three waves approach to school effectiveness consistent of internal-effectiveness, interface effectiveness, and future effectiveness (Scheerens, 2015).

Determining dimensions of school effectiveness

The above review of the related literature support the following dimensions of school effectiveness identified by the researchers through survey such as: High expectations of stakeholders, quality assurance, academic achievement of student, teacher efficacy, material and non-material resources, community involvement, defining school mission, managing instructional programs, creating school learning climate, professional values, collegiality, collaboration, shared planning, emphasis on learning, transformational leadership, safe environment, assessment and evaluation, social skills, curriculum, and home environment.

Methodology

The research was brought into two phases, qualitative and quantitative. First, through qualitative approach the dimensions were selected through open ended questionnaire as perceived by the respondents. Then for its validation and ordering purpose, the data was collected from Mardan educational district, in KP province of Pakistan through closed ended questionnaire. The questionnaires consisted of the determinants of school effectiveness, with seven choices (1. Never, 2. Almost Never, 3. Seldom 4. Sometimes, 5. Frequently, 6. Almost Always, and 7. Always) were distributed among the respondents.

On the bases of the collected data generalization was made for the whole population. The principals, teachers, parents, and education officers in Mardan educational district were considered as the population for this study. The questionnaire was distributes and collected by the researchers themselves. To analyze the data SPSS was used, and then the data was interpreted and discussed. The study is aimed to find the dimensions of school effectiveness in secondary schools of Mardan district in KP province (Pakistan).

Sample

There are total 1755 teachers in secondary schools of Mardan district (including male, female, from urban & rural). Total 367 teachers were selected randomly as sample size from the stated population of the teachers in secondary schools of Mardan district. Similarly, one DEO (district education officer), two SDEOs (sub-district education officers), two ASDEOs (assistant sub district education officers), two principals were selected through random sampling, and ten intellectual parents were selected under the rule of purposive sampling technique. The total sample size rose up to 384 for this study.

Data collection

There are total 138 secondary schools in Mardan district of KP province. The questionnaire was distributed among 367 teachers, and two principals from these schools. Similarly, the office of the DEO was visited to collect data from one DEO, two SDEOs, and two ASDEOs. Similarly, to collect data from the ten parents, they were visited at their homes by the researchers purposively.

Results

The data was analyzed through spearman rho using SPSS. Table of correlation regarding dimensions of school effectiveness is given below.

The above table shows that all the dimensions have positive correlation. Among them the first thirteen dimensions showed high correlation, while the last seven dimensions; EOL, TL, SE, AE, SS, CRM, and HEN showed lower/no correlation. According to Hinkle, Wiersma, & Jurs (2003) the value of correlation between zero and .30 is little correlation if exists, the value between .30 and .50 shows low correlation, the value between .50 and .70 shows medium correlation, and the value between .70 and .90 shows high correlation.

Table 1

Correlation among dimensions of school effectiveness

No.	Sub-D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	SP	1	.76**	.74**	.79**	.88**	.76**	.73**	.71**	.88**	.81**	.78**	.77**	.82	.36**	.33**	.34**	.33**	.30**	.35**	.32**
2	SM		1	.88**	.76**	.77**	.87**	.83**	.86**	.86**	.74**	.75**	.77**	.74**	.34**	.30**	.33**	.31**	.38**	.30**	.34**
3	COB			1	.82**	.79**	.87**	.89**	.78**	.85**	.75**	.79**	.85**	.77**	.29**	.33**	.21**	.36**	.35**	.32**	.35**
4	QA				1	.76**	.86**	.81**	.79**	.71**	.73**	.85**	.77**	.75**	.39**	.32**	.36**	.39*	.35**	.34**	.33**
5	TE					1	.76**	.87**	.88**	.77**	.84**	.86**	.88**	.76**	.33**	.37**	.35**	.39**	.36*	.30**	.33**
6	CSLC						1	.82**	.89**	.81**	.71**	.81**	.83**	.79**	.30**	.23**	.36**	.32**	.36**	.39*	.35**
7	RES							1	.72**	.76**	.81**	.75**	.81**	.83**	.31**	.25**	.30**	.31**	.33**	.36**	.34*
8	CI								1	.85**	.86**	.81**	.84**	.77**	.39**	.22**	.37**	.35**	.36**	.35**	.31*
9	HE									1	.75**	.72**	.76**	.77**	.20**	.26**	.39**	.34**	.37**	.30**	.36*
10	MIP										1	.81**	.75**	.74**	.33**	.24**	.31**	.34**	.37**	.30**	.36*
11	COL											1	.77**	.76**	.30**	.25**	.33**	.30**	.36**	.34**	.39**
12	PV												1	.70**	.24**	.20**	.39**	.26**	.33**	.35**	.32**
13	SAA													1	.25**	.39**	.35**	.30**	.41**	.31**	.39**
14	EOL														1	.21**	.36**	.33**	.32**	.21**	.28**
15	TL															1	.20**	.31**	.30**	.32**	.23**
16	SE																1	.42**	.34**	.39**	.37**
17	AE																	1	.38**	.35**	.30**
18	SS																		1	.39**	.36**
19	CRM																			1	.38**
20	HEN																				1

Note**:** [p** < 0.01, p* < 0.05 (sig: 2-tailed), SP= Shared Planning, SM=School Mission, COB=Collaboration, QA=Quality Assurance, TE=Teacher Efficacy, CSLC=Creating School Learning Climate, Resources, Community involvement, HE=High Expectations, MIP=Managing Instructional Programs, COL=Collaboration, PV=Professional Values, SAA=Student Academic Achievement, EOL=Emphasis on Learning, TL=Transformational Leadership, SE=Self Environment, AE=Assessment and Evaluation, SS=Social Skills, CRM=Curriculum, and HEN=Home Environment)

Reliability and Validity

Table 2

Cronbach Alpha values for reliability

No.	Dimensions	Cronbach Alpha
1	Quality Assurance (QA)	0.91
2	Teacher efficacy (TE)	0.84
3	Student Academic Achievement (SA)	0.86
4	Community Involvement (CI)	0.79
5	Resources (RES)	0.77
6	High Expectations of Stakeholders (HE)	0.83
7	Defining School Mission (SM)	0.86
8	Managing Instructional Programs (MIP)	0.88
9	Creating School Learnng Climate (CSLC)	0.89
10	Professional Values (PV)	0.78
11	Collegiality (COL)	0.89
12	Collaboration (COB)	0.75
13	Shared Planning (SP)	0.83
14	Emphasis on Learning (EOL)	0.24
15	Transformational Leadership (TL)	0.33
16	Safe Environment (SE)	0.19
17	Assessment and Evaluation (AE)	0.12
18	Social Skills (SS)	0.23
19	Curriculum (CRM)	0.28
20	Home Environment (HEN)	0.25

The Table 2 shows that Cronbach alpha values for each dimension of school effectiveness. The Cronbach alpha values for the dimensions; SP, SM, COB, QA, TE, CSLC, RES, CI, HE, MIP, COL, PV, SAA, are acceptable while the Cronbach alpha values for EOL, TL, SE, AE, SS, CRM, and HEN are not acceptable, therefore these dimensions are not considered. Furthermore, Table 3 indicates analysis of KMO (Kaiser-Meyer-Olkin) measure of sampling adequacy. The significant result of KMO shows that the sample size is relevant for the analysis.

Table 3
Sampling adequacy

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.947
Approx. Chi-Square	5280.960
Df	78
Sig.	.000

Besides that, Table 4 presents the outer loading for the items of respected sub-dimensions. The results in the table show that all of the item indicators have factor loading ≥ .50 (Hair et al, 2009). It means the items validly represented the sub-dimensions. In other words, the sub-dimensions have high convergent validity.

Table 4
Outer loading for the items of respected sub-dimensions

Item	Sub-Dimension	Alpha	Item	Sub-Dimension	Alpha
1	SM	.74	32	COB	.81
2		.77	33		.88
3		.76	34		.86
4		.74	35		.88
5		.79	36	SP	.67
6	MIP	.89	37		.66
7		.87	38		.65
8		.86	39		.69
9		.88	40	HE	.54
10		.85	41		.59
11		.88	42		.58
12		.87	43		.55
13		.89	44		.59
14	CSLC	.66	45	RES	.74
15		.67	46		.77
16		.65	47		.79
17		.66	48	CI	.55
18		.69	49		.57
19		.68	50		.56
20		.67	51		.54
21		.64	52	SAA	.63
22		.68	53		.69
23	PV	.44	54		.65
24		.47	55	TE	.88
25		.49	56		.82
26		.45	57		.84
27	COL	.76	58	QA	.53
28		.79	59		.56
29		.70	60		.58
30		.73	61		.51
31		.77	62		.55

The Table 5 showed that QA, TE, SA, CI, RES, HE were grouped together, therefore these were named as sub-dimensions for general-school effectiveness dimensions. Similarly the SM, MIP, and CSLC were grouped together, therefore these were considered as sub-dimensions for instructional leadership dimension. The remaining sub-dimensions; PV, COL, COB, and SP were grouped together therefore theses were considered as sub-dimensions for school culture dimension of school effectiveness.

Table 5 presents the outer loading for the sub-dimensions of the respected three dimensions. The results in the table show that all of the indicators (sub-dimensions) have factor loading ≥ .50 (Hair et al, 2009). It means the three dimensions have high convergent validity. For further illustration factor loading and outer loading was found out through SEM output in Figure 1 to 3.

Table 5

Outer loading for sub-dimension into dimensions for school effectiveness

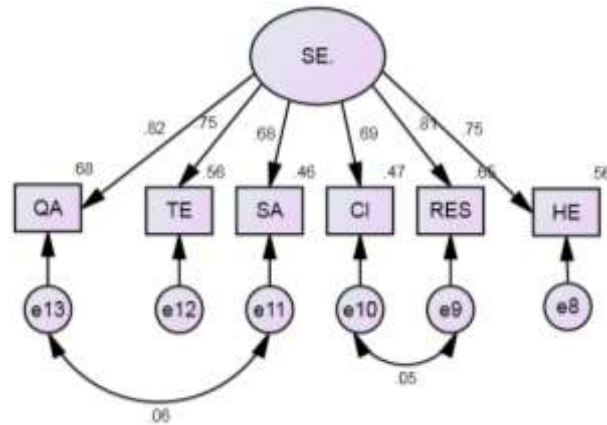|	Dimension		
Sub-dimension	General-school effectiveness	Instructional leadership	School culture
Quality Assurance (QA)	.65		
Teacher efficacy (TE)	.60		
Student Academic Achievement (SA)	.50		
Community Involvement (CI)	.50		
Resources (RES)	.63		
High Expectations of Stakeholders (HE)	.56		
Defining School Mission (SM)		.89	
Managing Instructional Programs (MIP)		.94	
Creating School Learning Climate (CSLC)		.95	
Professional Values (PV)			.80
Collegiality (COL)			.89
Collaboration (COB)			.86
Shared Planning (SP)			.86

Figure 1: SEM output confirmatory factor analysis for sub-dimensions of general school effectiveness dimension
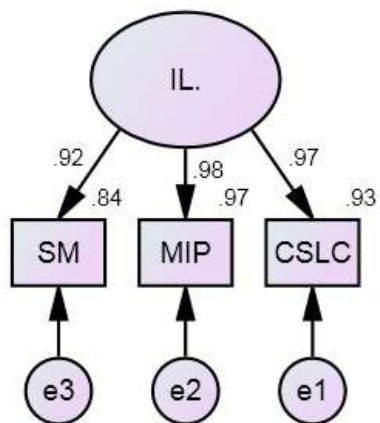

Fig.ure 2: SEM output confirmatory factor analysis for sub-dimensions of instructional leadership dimension
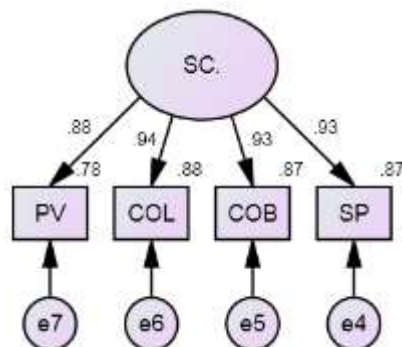

Figure 3: SEM output confirmatory factor analysis for sub-dimensions school culture dimension

The outer loading and factor loading values confirm the relation of sub-dimensions with dimensions of school effectiveness.

Table 6

Validity and reliability for the three dimensions of school effectiveness

Dimension	Construct Validity		Reliability Alpha > .70
	CR (p< .05)	AVE (> 0.50)	Cronbach Alpha
General School Effectiveness (GSE)	0.90***	0.56	0.94
Instructional Leadership (IL)	0.92***	0.91	0.95
School Culture (SC)	0.89***	0.85	0.95

The Table 6 shows CR and AVE values. All the values are within the threshold values, the CR value for SE [0.90], IL [0.92], SC [0.89] > 0.70, and the AVE values for SE [0.56], IL [0.91], and SC [0.85] > 0.50 (Hair et al. 2009). Therefore the three dimensions are valid in terms of construct validity and reliable. To identify discriminant validity of the constructs, *Fornell-Larker* analysis was done (Table 7). Diagonal values are AVEs and the values in parenthesis is R-Squares, AVEs> R-Squares indicates that the three dimensions have sufficient Discriminant Validity.

Table 7

Fornell-Larker Criterion for Discriminant Validity

Latent Variable	SE	IL	SC
General School Effectiveness (SE)	0.56		
Instructional Leadership (IL)	(0.313)	0.91	
School Culture (SC)		(0.828)	0.85
			(0.722)

Finally, to identify the level of school effectiveness, means and standard deviations of the sub-dimensions were presented in the table 8. The results show that based on the descending order of mean scores, the most valued sub-dimension is quality assurance as perceived by the respondents. It is followed by TE, SA, CI, RES, HE, SM, MIP, CSLC, PV, COL, COB, and SP respectively.

As for the three dimensions of school effectiveness, as shown in the Table 8, General School Effectiveness has a highest mean score followed by Instructional Leadership an School Culture has a lowest mean score for schools effectiveness.

Table 8

Mean and SD for sub-dimensions and dimensions of school effectiveness

Sub-Dimensions	Mean	SD
QA	4.86	0.96
TE	4.82	0.99
SA	4.78	1.02
CI	4.73	1.16
RES	4.67	1.24
HE	4.55	1.33
SM	3.97	1.44
MIP	3.77	1.52
CSLC	3.68	1.56
PV	3.01	1.64
COL	2.98	1.44
COB	2.66	1.58
SP	2.45	1.63
Dimension		
General School Effectiveness	4.7350	1.1167
Instructional Leadership	3.8067	1.5067
School Culture	2.7750	1.5725

Discussion

The process of data collection has taken place in two steps. In the first step teachers, principals, education officers, and intellectuals from parents were asked through open ended questionnaire to write the most important dimensions of school effectiveness as they perceive. Based on the data 20 sub-dimensions dimensions were chosen as shown in the table above. In the second step a quantitative tool was developed to validate these dimensions and to know which of these dimensions are most important. In other words the researcher aimed to find the dimensions and order of preference for dimensions as perceived by the respondents.

The collected data was analyzed for the purpose to find out the dimensions of school effectiveness. The analysis shows that the thirteen dimensions named: shared planning, defining school missions, collaboration, quality assurance, teacher efficacy, creating school

learning climate, resources, community involvement, high expectations, managing instructional programs, collegiality, professional values, student academic achievement were validated as the dimensions for school effectiveness.

The selection of the above sub-dimensions was based on the values for Cronbach alpha and correlation. While the remaining seven dimensions such as: emphases on learning, transformational leadership safe environment, assessment and evaluation, social skills, curriculum, and home environment were not considered as the dimensions for school effectiveness in the context, because of their low correlation and Cronbach alpha values. The outer values for all the items resulted to group them into the related sub-dimension. The validity and reliability was found within the threshold values.

Further these thirteen sub-dimensions were grouped showing three dimensions as shown in Table 4. These dimensions were named as general school effectiveness dimensions, school culture and instructional leadership based on their attitude of grouping.

The analysis has also revealed that the first most preferred dimension is quality assurance as perceived by the respondents. It is the characteristic of a strong leadership which improve capabilities of teaching, learning, student skills and knowledge, and focuses process rather than inputs is quality assurance. The respondents thought quality assurance as important for school effectiveness therefore, this dimension is preferred.

In the hierarchy of preference next coming dimension is teacher efficacy. This dimension shows knowledge and skills of teachers. It expects teachers to be capable of being teachers. In the perception of the respondents this dimension is essential in school effectiveness.

In the order of preference the next dimension is the student academic achievement. In Pakistani context, it refers to achieved score by the student in the examination. In the context all decisions about student's future, for example admission in class or selection for services is based on this performance of a student. Therefore this dimension is preferred by the respondents as well.

The dimension community involvement is next preferred dimension as perceived by the respondents. The community involvement is essential in school effectiveness, because these schools are from the community and for the community. Scheerens (2015) discussed functional community theory which supports this dimension of school effectiveness. In fact the community should be involved in institutional development process in school, planning and governance, satisfaction of school charter, survey of key stakeholders' which is performance-based, funding, and accountability reporting to the community (Cheng, 2003). Therefore, the respondents gave importance to this dimension.

The next coming important dimension as perceived by the respondents is resources. The school resources are of two types i.e. tangible and intangible. The tangible resources include electricity, furniture, teaching materials, playgrounds, water etc. These resources were discussed by Glewwe, Hanushek, Humpage and Ravina (2011) and Iqbal (2012). While intangible resources include intellectual capitals of teachers, in-service trainings, workshops, and lifelong learning etc. Both tangible and intangible resources were discussed by some researchers (e.g. Awan & Saeed, 2014; Kazemi et al. 2012; Khan, 2013a; Khan, 2004). This explains why the respondents perceived this dimension as important.

Similarly, "*high expectations of stakeholders*" dimension comes next. In fact this dimension means "zero tolerance to failure" (Anderson and Pellicer, 1998) and "*success for all*" (Slavin, 1996). In the light of these definitions this dimension is give much importance by the respondents.

The followed preferred dimension is defining school mission. This dimension indicates towards the attitude of the principal to frame school goals and to communicate these goals effectively to the teachers and community (Hallinger & Heck, 1998, Hallinger, 2013). This mission statement creates a belief system in the school environment which causes understanding of the teachers and help to create school culture that in turn results in school effectiveness (Schoen, 2005). The respondents perceive if the principals define the school mission, the school effectiveness will be achieved.

Managing instructional programs also got high preference by the respondents. According to the Hallinger (2009) it is the attitude of the principal to perform three functions such as monitoring student progress, supervising and evaluating instruction, coordinating the curriculum. Because this dimension is related to instructional leadership of principal that affect students outcome therefore this dimension got high preference by the respondents.
The above dimension is followed by creating school learning climate. According to Hallinger (2009), this dimension indicates towards some characteristics of principals such as protecting instructional time, maintaining high visibility, promoting professional development, providing incentives for teachers. In the perception of the respondents it is an important in school effectiveness.

The next dimension is professional values. The professional values like social justice, importance of human-relationship, dignity and worth of the person, integrity, and competence were valued by González-Prendes (2011). These are such characteristic which found in the teachers of a successful school, therefore the respondents viewed this dimension as important in school effectiveness.

The analysis shows that collegiality got the nest position in the hierarchy for preference for the dimensions of school effectiveness. It is the interpersonal relationship among the teachers. It is termed as "*the degree to which teachers work together effectively*" (Mees, 2008; p.10). The respondents believe in teamwork in the process of school effectiveness, therefore this dimension got high preference.

The following next dimension is collaboration. In fact collaboration explains how different teachers react to each other for the sake of the institution. It is the main responsibility of the principal to create collaboration among teachers that will help to achieve school effectiveness (Mees, 2008). In the perception of the respondents it is an essential characteristic of the school that resulting in effectiveness.

The final dimension is the shared planning as perceived by the respondents. According to Cavanagh and Dellar (1996, 1997a, 1997b, 1998, & 2003) this dimension shows the acceptance and development of teachers for future direction of the school. Shared planning is found in the schools where school culture is developed by the teachers and principals for school effectiveness. This take place when a response is needed by the principal in a matter of school. Collectively the teachers and principal plan the future direction under this conception. Most of the respondents viewed shared planning is essential in school effectiveness.

The remaining seven dimensions such as emphases on learning, transformational leadership, safe environment, assessment and evaluation, social skills, curriculum, and home environment were not validated by the respondents in the context.

Conclusion

It is concluded that total thirteen sub-dimensions are validated to assess school effectiveness in the given context. Among these sub-dimensions quality assurance is the most preferred dimension of school effectiveness, followed by teacher efficacy, student academic achievement, community involvement, resources, high expectations of stakeholders, defining school mission, managing instructional programs, creating school learning climate, professional values, collegiality, collaboration, and shared planning.

The sub-dimensions such as quality assurance, teacher efficacy, student academic achievement, community involvement, resources, and high expectations of stakeholders were combined to consider the general school effectiveness dimension. Similarly, defining school mission, managing instructional programs, and creating school learning climate were combined to make instructional leadership dimension. And the sub dimensions professional

values, collegiality, collaboration, and shared planning were combined to make school culture dimension.

Implications of the study

This study will draw the attention of the policy makers, instructional leaders, and teachers towards the importance of the dimensions of school effectiveness in the stated context. The district education officers and principals can make assessment for school effectiveness through the dimensions found in this study.

Future Research

It is suggested that further research should be developed in other provinces of Pakistan as well, for the purpose to make easy the selection of the dimension for school effectiveness on the whole country level. To assess the levels of school effectiveness in Mardan district, the above found three dimensions (with thirteen sub-dimensions) are quite suitable.

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